

Transport
for NSW

Transport Sustainability Report 2020-21





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Introduction



Acknowledgement of Country

We acknowledge the Traditional Custodians of the lands and waters, pay our respects to Elders past and present and know that modern New South Wales (NSW) is an overlay on Aboriginal land.

Many of the transport routes we use today, from rail lines, to roads, to waterways, follow songlines that Aboriginal people have followed for tens of thousands of years.

As an organisation that works across and connects many Aboriginal countries within NSW, we have a responsibility to listen, learn and walk alongside Aboriginal peoples to ensure our activities support their aspirations and ongoing connection to their lands, waters, cultures, languages and traditions.

We are committed to delivering positive educational, economic and social outcomes with Aboriginal peoples and meaningful engagement through our Aboriginal Engagement Framework 'Ngiyani Winangaybuwan Bunmay' (pronunciation: gner-nee wina-nay-born buun may).

A NSW where every
journey is **people and
planet positive**





A message from Rob Sharp

Secretary,
Transport for NSW

Welcome to Transport for NSW's first Sustainability report.

At Transport, our purpose is to make NSW a better place to live, work and visit by connecting people and communities and making journeys safer, easier and more reliable.

Sustainability is a critical consideration driving our decision making. We want to ensure we're mindful of any environmental, social and cultural impacts of the infrastructure we're building. We also need to understand how the policy and regulations we are setting incentivise change, and how we're adopting innovation and technology to reduce Transport's environmental footprint.

While we've done a lot of great work here, we know there is more to do. This report is about focusing our efforts on eight key sustainability areas. These include looking at initiatives to reduce our waste and improve our use of water and sustainable materials as part of our goal of improving environmental outcomes. We are also ensuring we are managing our relationship with the land and water on which we operate to achieve our aim of protecting and enhancing biodiversity.

With just under 20 per cent of the state's greenhouse gas emissions generated from the transport sector and the NSW Government pursuing a target of [net zero emissions by 2050](#), we will also be focused on responding to climate change.

Environmental sustainability is paramount, but we have approached our report with a holistic sustainability view – which is why our focus areas also cover social, cultural and financial targets.

Through this approach, we aim to align spend with focus areas to ensure infrastructure investments are financially, environmentally and socially sustainable and support sustainable supply chains through responsible procurement. We continue our ongoing commitment to partnering with the communities in which we're operating and respecting the culture and heritage of people, both within Transport and in the broader community, to make us an even stronger organisation. Finally, we want to empower our customers to come on this journey with us and encourage them to utilise sustainable transportation options.

In building our focus areas, we looked to industry best practice both within Australia and globally. We aligned our approach with the UN Sustainable Development Goals and Transport's short, medium ([10 Year Blueprint](#)) and long-term ([Future Transport 2056](#)) plans, along with our Future Energy strategy and Reconciliation Action Plan.

We are also aligned with the NSW Government's commitments in the [Net Zero Plan Stage 1: 2020 to 2030](#) and establishing a [Circular Economy](#).

This report, based on our eight sustainability focus areas, assesses our current efforts, celebrates our sustainability successes and empowers our people and our partners to find innovative solutions. Importantly, it also holds us to account for our sustainability targets.

We are incredibly proud of the work we have done to create a more sustainable NSW, with Transport already at the forefront of sustainable infrastructure development in our State. Detailed within this report are a number of these achievements – from creating transport corridors that form a safe passage for fauna around Transport infrastructure, to introducing bi-mode technology, which enables the utilisation of the high voltage electricity network, to the new Regional Rail Fleet.

Now, with the launch of our inaugural report, we're bringing together the great work happening across the transport network and project sites to focus on creating a NSW where every journey is people and planet positive.



A message from George Shearer

Director Aboriginal Engagement,
Transport for NSW

Sustainability has been central in the lives of Aboriginal people for tens of thousands of years.

For us, sustainability is a holistic concept; our relationships with people, country and culture are entwined. To see Transport now launch its first ever sustainability report with a holistic approach that considers financial, social, cultural and environmental indicators is heartening.

The work we do in Aboriginal Engagement traverses all of these areas as we work closely with teams across Transport to ensure greater outcomes for Aboriginal people. Transport has diverse touchpoints with Aboriginal communities, their interests, priorities and issues. We engage with Aboriginal communities on road and maritime safety, land interests, transport services, employment and procurement and cultural heritage management, planning and place making. The Aboriginal Engagement Framework is a key driver for us, as early engagement and using different ways of engaging are crucial – one size does not fit all.

We are seeing strong, positive outcomes from Transport's programs and initiatives for our First Nations people, which are highlighted in this report. Supplier and workforce procurement has been one of the standout areas, representing the biggest opportunity to create economic and social impact for people, businesses and communities to achieve their aspirations.

However, there are opportunities to do more.

We need to ensure our engagement is tailored and timely. We want to collaborate more closely across the business to ensure there are sustainable, Aboriginal-specific objectives embedded across all projects. Having seen great results from collaborating with the Aboriginal business sector, especially in regional areas, we need to actively pursue those relationships more.

There are opportunities to go beyond addressing gaps – to think creatively about how we use and share knowledge. We have archaeological assessments with rich and amazing information, but only the archaeologists can interpret it – so how do we take that information and share it back with the community in a meaningful way and in a form that can be used? Are volumes of information the output that communities desire? Can we use cultural practices such as art, dance, song and storytelling or is digital story telling the way to go?

It's also thinking about long-term, sustainable solutions for our people. As we develop and deliver public transport in cities and large regional centres, plus fund community transport and council cycleways in smaller towns where there may not be public transport, we must understand where Aboriginal people – particularly our discrete communities – live. These principles need to be front of mind.

While there is much work to be done, our team is very pleased to see this piece of work coming to life. Transport is making a strong commitment to placing sustainability firmly on the agenda. It is bringing diverse people from across the organisation together to work more closely toward a common goal that benefits us all.

I have no doubt that as we gain momentum, it will become even clearer how interwoven the focus areas are and how much benefit there is to us and to the community when we acknowledge how people, land and culture are all connected.

Ultimately, when you look after country, country will look after you.



About this report

This is Transport for New South Wales' (Transport) first annual sustainability report. The report introduces Transport's sustainability vision, focus areas and goals. It aims to provide stakeholders with an overview of performance against its eight focus areas, as well as highlights, challenges, stories and upcoming initiatives. The eight focus areas are: Respond to Climate Change, Protect and Enhance Biodiversity, Improve Environmental Outcomes, Procure Responsibly, Partner with Communities, Respect Culture and Heritage, Align Spend and Impact, and Empower Customers to Make Sustainable Choices.

This report provides an overview of Transport's sustainability-related impacts and outcomes between 1 July 2020 and 30 June 2021. It includes an insight into Transport's extensive network, projects and organisation-wide sustainability activities and initiatives. While the report provides insight into activities and achievements from Sydney Metro projects, data from these projects is not included. Detailed information on sustainability performance across Sydney Metro projects can be found at <https://www.sydneymetro.info/our-approach-sustainability>.

The development of this report is a key action outlined in our Transport Sustainability Plan 2021. Transport is committed to reporting on an annual basis. Through the development of this report, Transport has identified opportunities for improvement which will help it to develop a robust reporting process and methodology. Over the coming years, Transport's sustainability reporting improvement roadmap aims to deliver a best practice report, including being guided by the [Global Reporting Initiative \(GRI\) Standards](#), and establishing consistent performance data annually.

As Transport embarks on this new chapter of sustainability disclosure, it welcomes feedback on the report by contacting environmentandsustainability@transport.nsw.gov.au or through our online portal at sustainability.transport.nsw.gov.au. In addition to this report, you can find additional information on the portal such as sustainability-related strategies, video case studies and other updates throughout the year.

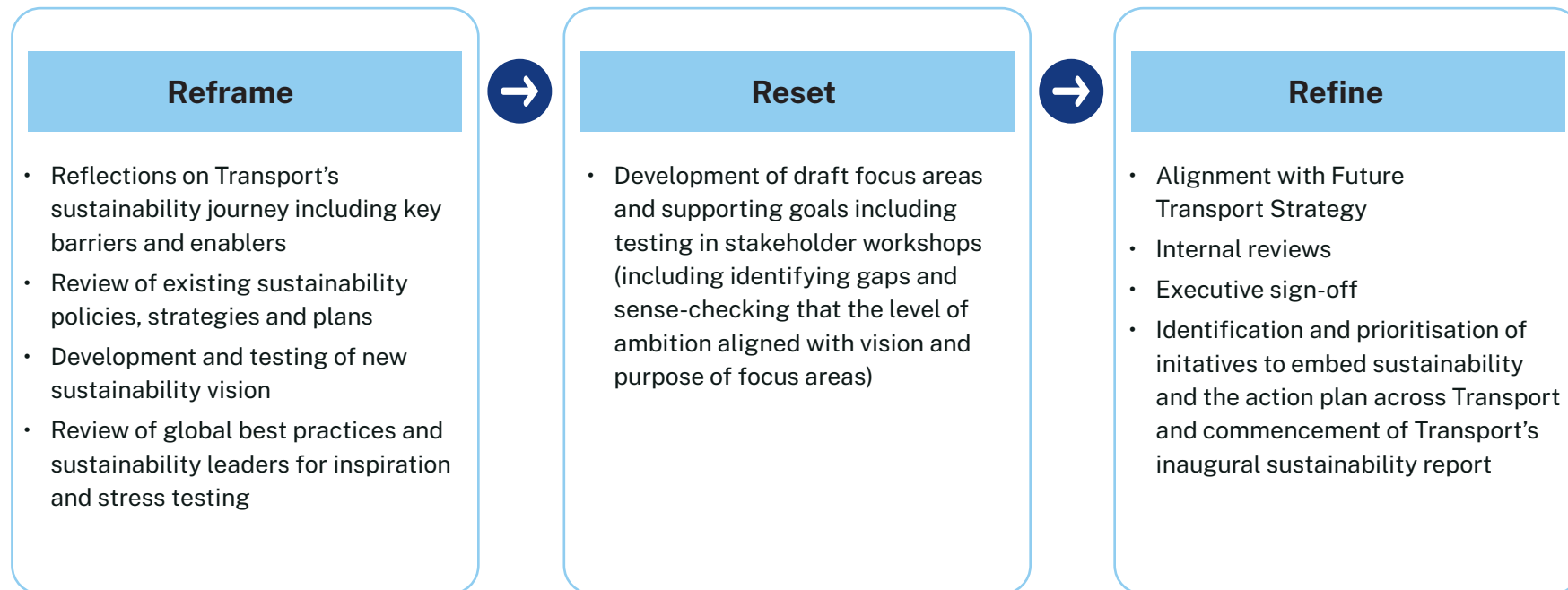
Development of Transport's sustainability vision and eight focus areas

In 2020, Transport for NSW took a co-creative approach to defining a sustainability vision and focus areas for the organisation. Transport has been undergoing Evolving Transport – a major organisational change project – to become an integrated organisation that creates great places and end-to-end journeys by delivering whole of transport systems, processes, and structures for NSW. Under Evolving Transport, transport agencies were integrated into a new operating model that focused less on individual modes of transport and more on what customers and communities wanted – the best ways of getting from A to B, and having great places to live, work and visit.

Under this new, integrated mode, Transport was able to create a unified sustainability vision to bring consistency to our approach by creating a common language and framework for the whole organisation. The sustainability focus areas were defined in consultation with internal stakeholders and an independent third-party to drive a universal understanding and engagement with the vision. Senior stakeholders from across Transport were also involved in the process. This followed three key stages, explored over a series of generative workshops, marking a step-change in Transport's sustainability journey.



Sustainability focus areas development process



Transport's sustainability focus areas



Respond to climate change

Mitigate, adapt and respond to the climate crisis by reducing our greenhouse gas emissions and building climate resilience across our network of existing and future infrastructure projects.

Goals

Consider climate change risks in all decisions

Net zero emissions by 2050

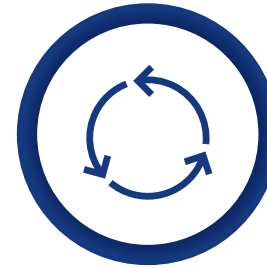


Protect and enhance biodiversity

Protect biological diversity, enhance and regenerate the environments in which we operate.

Goals

No net loss of biodiversity



Improve environmental outcomes

Enhance resource efficiency and reduce the environmental impacts of projects and operations on energy, water and effluent, noise, vibration and air quality, waste and suppliers.

Goals

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



Procure responsibly

Develop and implement social procurement and workforce development strategies and initiatives that work holistically to enhance skills, diversity and industry capability, and integrate environmental considerations into procurement decision-making.

Goals

All suppliers meet the standards in the Transport Supplier Sustainability Charter

Social and environmental outcomes included in all procurement decisions

Go beyond minimum compliance targets in the [Aboriginal Procurement Policy](#)

Transport's sustainability focus areas



Partner with communities

Work with communities to ensure their needs are being met as we work to create a safe, accessible and affordable Transport network.

Goals

Always leave a positive legacy for communities as a result of projects

Enable, apply and report on community engagement



Respect culture and heritage

Partner with our communities, including Aboriginal people and communities, to ensure sustainable co-design and consideration of relevant culture and heritage across all of our projects. Preserve First Nations culture throughout projects and across the operation of our network by ensuring that Aboriginal cultural and spiritual connections to the land, waters and seas is honoured and respected.

Goals

Aboriginal culture integrated and preserved

Acknowledging and incorporating culture through stories, examples, best practice



Align spend and impact

Ensure our infrastructure investment creates significant positive social and environmental impacts and achieves value for money for the people of NSW.

Goals

All decisions consider value created from sustainability alongside financial analysis

Reduce whole of life costs for the transport network



Empower customers to make sustainable choices

Equip customers with the knowledge, including benefits and consequences, of available transport options, to encourage sustainable transport choices.

Goals

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



About Transport

Transport is making NSW a better place to live, work and visit by driving the development of a safe, efficient and sustainable transport network. We work to connect people and communities and make their journeys safer, easier and more reliable.

Customers are at the centre of everything we do. This principle is central within teams across the organisation, from transport planning, strategy, policy, procurement and other non-service delivery functions across all modes of transport – roads, rail, ferries, light rail and point to point. We collaborate with operating agencies, private operators and industry partners to deliver services and projects to achieve the best outcome for our customers and communities.

The NSW Government is currently delivering \$72.2 billion of transport infrastructure investment over four years – the largest program of its kind in Australian history.

The program of infrastructure works spans Sydney Metro, rail, light rail, rolling stock delivery, maritime, ferry, bus, motorways and road upgrades. Transport relies on a range of resources and relationships to deliver its services, which comes with an environmental and social impact.

We are working hand-in-hand with our operating agencies, private operators, industry and delivery partners to ensure a NSW where every journey is people and planet positive. For the first time, Transport's eight sustainability focus areas provide a common definition and language for sustainability.

Delivering sustainable transport

An extended network of government agencies and private organisations work together to deliver transport services. As the lead agency, Transport for NSW is responsible for the development of a safe, efficient, integrated transport system that keeps people and goods moving, connects communities and shapes the future of our cities, centres and regions.

Our role is to lead the strategy, planning, policy, regulation, funding allocation and other non-service delivery functions for all transport modes including road, rail, ferry, light rail, point to point, cycling and walking. Improving customer experience is a high priority for us, and we contract public and private operators to deliver customer-focused transport services on our behalf. We lead the procurement of transport infrastructure and oversee delivery through project delivery offices and industry and government delivery partners.



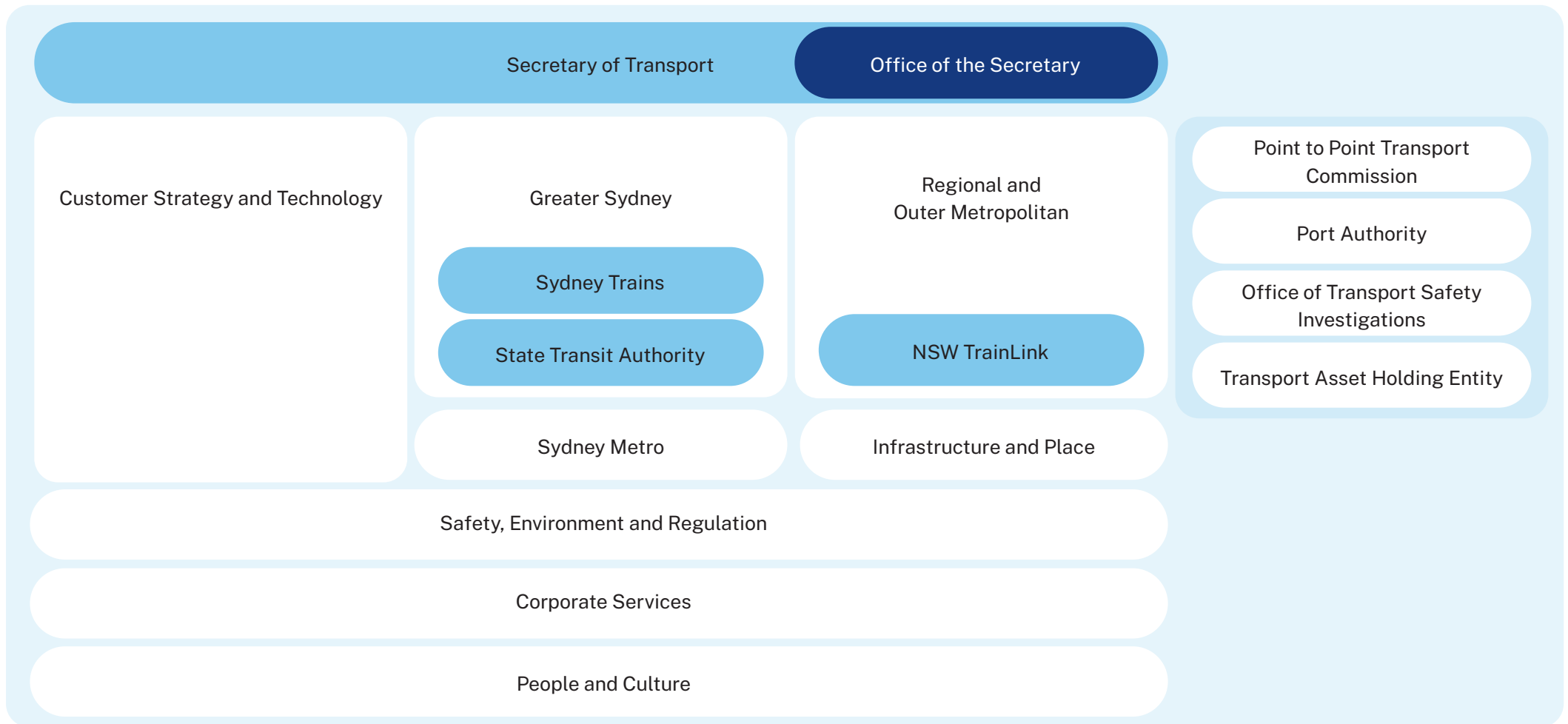
Our projects

Visit the [Transport Annual Report](#) for information on our FY 2020-21 major infrastructure projects.

About Transport

Our structure

The Transport model (as at 30 June 2021)





About Transport

Our people

Our people are key to a sustainable organisation and culture

At Transport, our people, customers, communities and partners are central to our sustainability efforts. It's important that we care for our people to ensure we can deliver on our sustainability vision of creating people and planet positive journeys. We aim to be a great place to work and one of the safest workplaces in Australia, where we build capability and harness the diversity of our people. Its important our people see how their role contributes to our vision and culture – putting the customer at the centre, people at the heart and for the greater good.

Our People Strategy puts our people at the heart of everything we do. We are delivering on our people focus areas through an engaged, diverse and healthy workforce.

We strive to enable teams of thriving people to do meaningful work. Our five key strategic pillars help us achieve this.





Working together for the greater good

- Empowering our people and actively collaborating
- Ensuring a high level of belonging, care and involvement felt by Transport people and partners by creating an inclusive and diverse workforce that reflects the customers and communities we serve.



Growing meaningful careers

- Optimising performance and creating dynamic career pathways by ensuring physical and digital workplaces, spaces and systems to facilitate and drive performance
- Leveraging personalised learning to unlock the potential of our people.



Evolution of work

- Creating modern workplaces and a sustainable workforce by preparing for the work of a technology-enabled future and evolving people and capabilities to respond to new technology and ways of working.



Safe and well at work

- Ensuring our people are safe and well at work will enable a fulfilled and productive workforce who can effectively support our customers to have safe and seamless journeys.



Great place to work

- Creating a foundation of fairness and respect and an aligned culture focused on our three core principles of keeping customers at the centre, people at the heart in everything we do, and making decisions for the greater good
- Driven by our five ways of leading principles of being empowering, sustainable, creative, courageous and caring.



We are creating a flexible and supportive environment where our people have the tools to succeed and contribute. We enable our people through skills and capabilities training that allows them to work through challenges and seize opportunities. Our diverse workforce is reflective of the varied communities we work with and every employee brings great value. Ultimately, we have a responsibility to ensure our people, sub-contractors, customers and partners are safe and healthy.

Our approach

The delivery of our People Strategy ensures positive outcomes for all employees. We also have other targeted strategies to ensure we meet our people's varied needs and address key areas such as training, development, safety and diversity. These strategies include:

- Jobs for People with Disability
- [Reconciliation Action Plan \(RAP\)](#)
- [Aboriginal Participation Strategy](#)
- Safety Management Framework
- Safety Report

We have employee networks that create communities to ensure people within Transport feel safe, seen and heard. They provide communications and events that support, engage, develop and build awareness of our people and organisation. More than a quarter of our workforce now belongs to an employee network, such as:

- Transport's Ally network: focuses on LGBTIQ+
- WISE: focuses on women in science, technology, engineering, mathematics and construction
- WiT: focuses on women in technology
- Transport's Enabled network: focuses on employees with disability
- Transport's Young Professional Network: for younger employees.



We will deliver on the outcomes established in [Transport's 10-year Blueprint](#) through the lens of our People Strategy by achieving our aspiration of thriving people doing meaningful work. Indicators and metrics have been determined based on availability at the time of publication and will be added to as additional mechanisms are developed. We aim to report our progress against these targets in future reports. For more, see Appendix 1.



2020-21 people outcomes overview



More than **12,000** people work for Transport for NSW



More than **29,808** people work for the Transport cluster with more than 3200 located in regional NSW



Approximately **348** workplaces across NSW (offices, depots, heavy vehicle inspection stations etc)

Transport employees who completed the 2020 People Matter Employee Survey in November rated their overall engagement with Transport at 67 per cent, an increase of two per cent from the previous year and Transport's highest ever engagement score.



Diversity and inclusion

Transport’s aim is to be the most preferred employer in Australia and is committed to improving the diversity of its workforce by setting clear targets.

We want our people to reflect the diversity of the communities in which we live and work. Supporting the NSW Government target of reaching 50 per cent of female leadership by 2025, Transport has a commitment to reach 40 per cent women in leadership by 2025. The Jobs for People with Disability plan, launched in 2019, outlines employment targets of 5.6 per cent of Transport roles being held by people with disability by 2025. [The Transport Reconciliation Action Plan](#) outlines our target of reaching 3.3 per cent of Transport roles being held by Aboriginal and Torres Strait Islander Peoples.

Steady progress was made towards achieving Transport’s diversity targets during 2020-21, with efforts made to further improve the integrity of employee diversity data and understand our broader workforce.

Trends in the Representation of workforce diversity groups

| Workforce diversity group | Benchmark (by 2025) | 2019 | 2020 | 2021 |
|---|---------------------|-------|-------|-------|
| Women | 50% | 48.3% | 39.5% | 40.4% |
| Aboriginal and/or Torres Strait Islander people | 3.3% | 1.9% | 2.8% | 2.7% |
| People whose first language spoken as a child was not english | 23.2% | 9.7% | 6.3% | 6.1% |
| People with disability | 5.6% | 1.3% | 1.6% | 2.0% |
| People with disability requiring work-related adjustment | N/A | 0.1% | 0.1% | 0.1% |

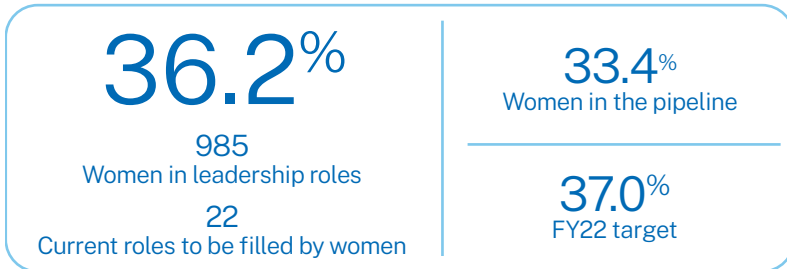
Benchmarks are from the Public Service Commission Reporting Requirements. FY22 Inclusion and Diversity targets and outcomes for Transport as at July 2021.

Inclusion and diversity Transport cluster

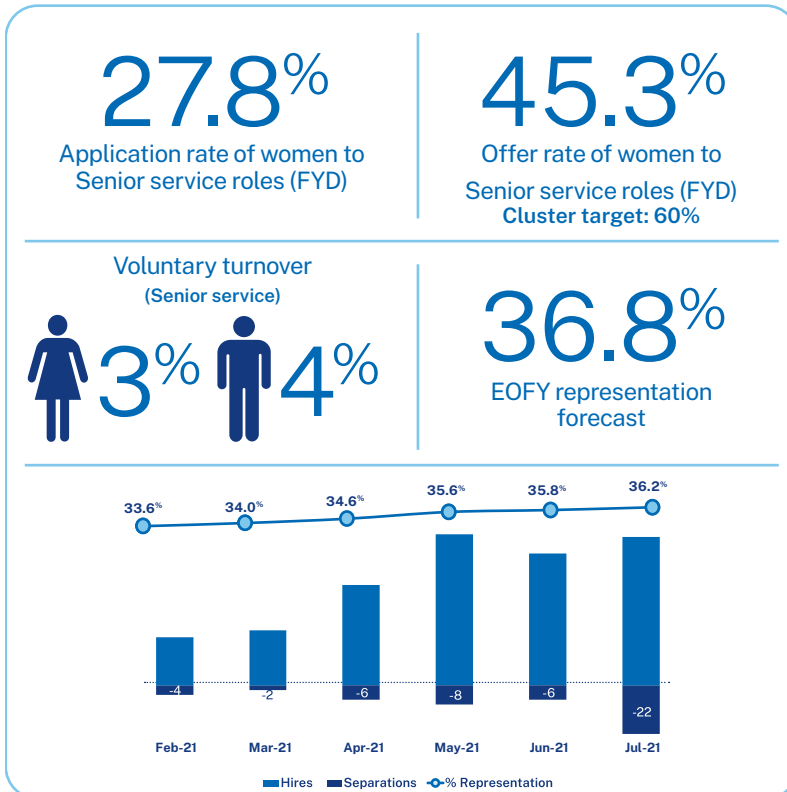
Women in leadership

Transport's commitment to [Premier's Priority #14](#) is to reach **40 per cent women in leadership roles by 2025.**

Current cluster position



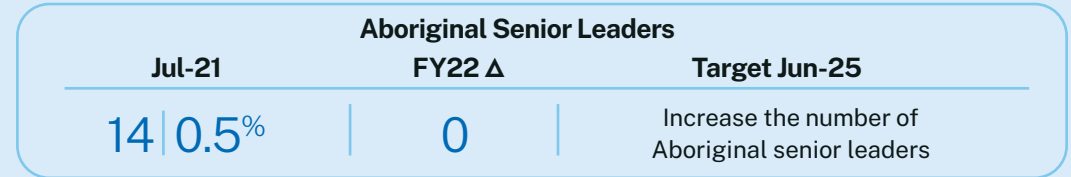
Trend and other measures



Aboriginal employees

Transport's commitment to [Premier's Priority #14](#) is to increase the number of Aboriginal people in senior leadership roles and represent three per cent of all staff in non-executive salary classes by 2025.

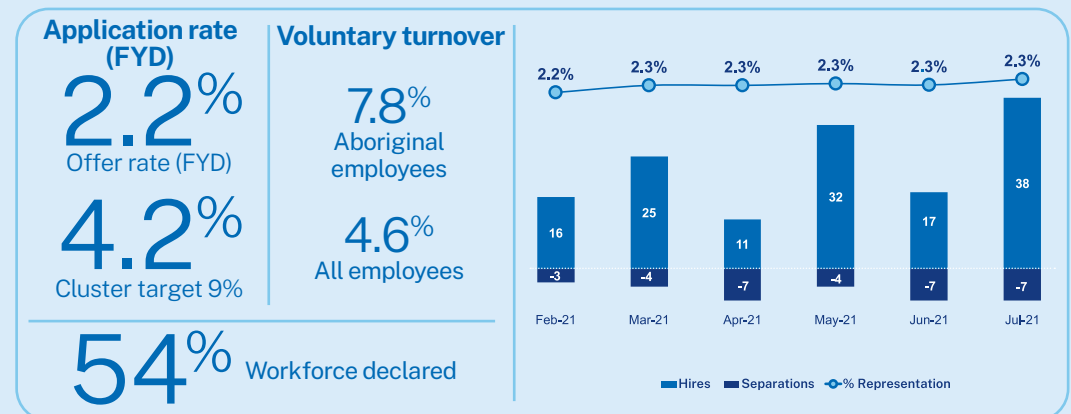
Current cluster position



Aboriginal award/salary classes

| | Jul-21 | FY22 Δ | Gap | Target Jun-25 |
|-----------------------|------------|--------|-----|--|
| \$128,473 - \$172,818 | 58 1.2% | 0 | 92 | Represent 3% of all staff in each non-executive salary class by 2025 |
| \$111,077 - \$128,472 | 42 1.6% | 0 | 38 | |
| \$97,443 - \$111,076 | 61 3.0% | 0 | 0 | |
| \$85,744 - \$97,442 | 36 1.6% | 0 | 32 | |
| \$72,635 - \$85,743 | 102 2.3% | 0 | 33 | |
| \$64,973 - \$72,634 | 136 4.4% | 0 | - | |
| <\$64,973 | 238 3.3% | 0 | - | |
| Total representation: | 687 2.3% | | | |
| Entry level talent | 20 | | | |

Trend and other measures

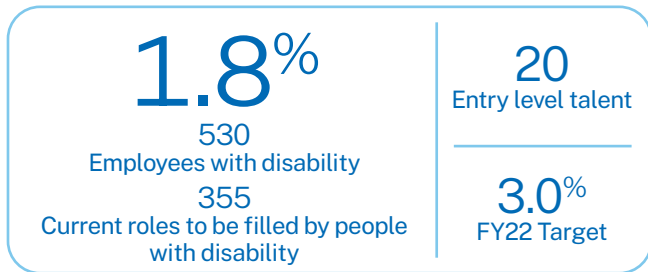




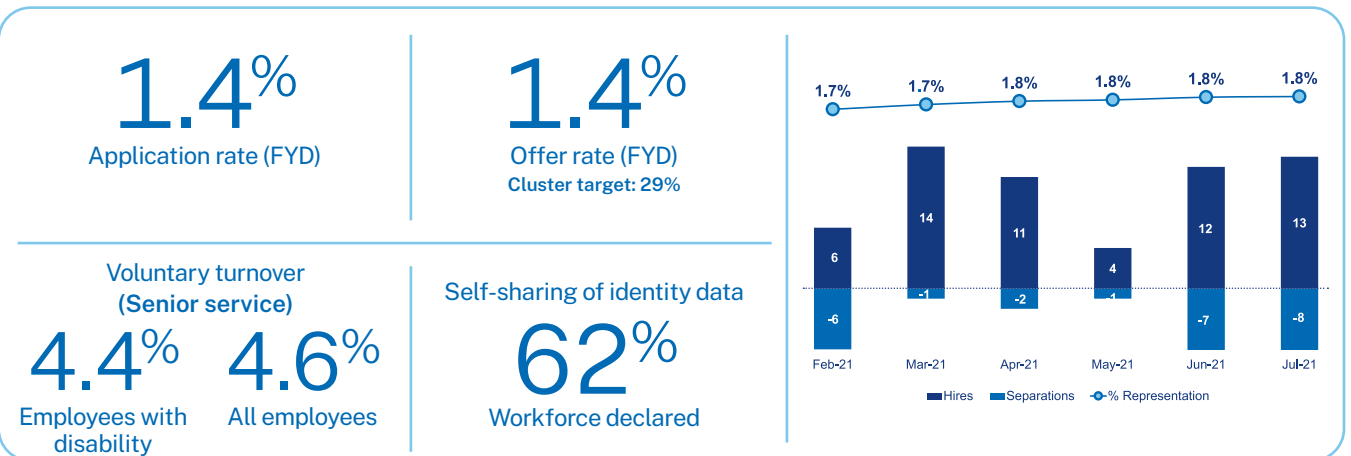
Employees with disability

Transport's commitment to **Premier's Priority #14** is to achieve **5.6 per cent of roles held by people with disability by 2025**.

Current cluster position



Trend and other measures



Work health and safety performance

Safety is one of Transport's core values. We prioritise the wellbeing of our people and our customers through our Enterprise Risk Management Framework, which strives to establish a consistent approach to identifying, recording, assessing, evaluating and managing risks. It complies with the requirements set out in the [Internal Audit and Risk Management Policy for the NSW Public Sector](#) (TPP20-08) and conforms to the [Australian and New Zealand Standard for Risk Management](#) (AS/NZS ISO 31000:2018). Risk management is integrated into our corporate strategy and business planning processes, with risks proactively identified, mitigated and regularly reported on at the Transport Executive and Audit and Risk Committee.

We have improved our safety reporting across Transport, with greater alignment and consistency with reporting standards and definitions. A critical risk framework is being established. Divisional safety risk profiles have identified our top three risks as: motor vehicle operations, working near traffic, and working near falling or moving objects. The critical risk control standards have been published for all twelve identified critical risks outlining minimum mandatory controls.

High potential critical risk incidents

Contractors and industry partners reported more than three times as many high potential incidents, during work performed on behalf of Transport, as direct employees during 2020-21. A comprehensive contractor safety management framework is being developed to provide Transport employees with a consistent framework for engaging contractors. It will consider the risk of the work, and assurance mechanisms required to collaboratively manage these risks with the contractor. This program will ensure joint ownership of safety between Transport and third-party service providers throughout the lifecycle of the engagement.

Work health and safety performance

| Performance indicator | 2020-21 |
|---|---------|
| Total of significant incidents in NSW | 364 |
| Lost time injury due to workplace related injuries or illness | 384 |

Workforce injuries and fatalities

In January 2021, while conducting a vessel lift utilising a barge mounted crane, an employee from Australian Wharf and Bridge (AWB) was hit by a falling object from the vessel at the contractor's Rozelle facility, tragically causing fatal injuries. The worker was engaged as a dogman and assisting in the salvage of a yacht.

The number of lost time injuries reduced across Transport compared to the previous year. A combination of fewer injuries and a reduction in severity of injury and illness, coupled with early intervention, has lifted performance.

Prosecutions

SafeWork NSW has discontinued proceedings against Transport for alleged breaches of the Work Health and Safety legislation in connection with the tragic fatality of a council worker at a roadwork site near Walgett in June of 2018. In response to the incident, Transport commenced a three-year Enforceable Undertaking on 4 May 2021.



Employee benefits

[Our people have access to a range of benefits](#), including flexible working arrangements, professional development opportunities, health and wellbeing programs, and a stay-connected during parental leave program. For more, see Appendix 2.

Information on the following topics can be found in Transport's Annual Report 2020-21:

- Labour relations and collective bargaining agreements
- Workforce relations policies and practices
- Personnel policies and practices
- Exceptional movements in wages, salaries or allowances
- Participation in industrial action



Challenges

Transport has implemented policies and procedures to keep our people and customers safe across our network and manage a range of challenges. For more, see Appendix 3.

COVID-19 pandemic

The COVID-19 pandemic has presented a unique and significant challenge to both Transport's customers and our people. It has dramatically changed the way our staff work and posed risks to the health and safety of public-facing, frontline staff. Key support strategies for staff included:

- Establishment of a COVID-19 task force
- Tailored working arrangements, including the roll out of devices and software to enable working remotely
- Up-to-date information and engagement with unions on operational safety and workforce matters
- Training of 135 Mental Health First Aiders across 40 work locations to identify and offer guidance for staff
- Webinars and other information on emotional and physical wellbeing
- Supported staff who were in situations of domestic violence or abuse
- Use of dedicated COVID-19 communications channels for 28,000 staff and 5500 leaders, including regular COVID-19 email updates and livestreams with news from the Secretary and other executives.



About Transport

Creating safe transport systems

Transport's commitment to sustainability goes beyond the consideration and prioritisation of our environmental impacts.

It is a principle that is woven into our strategic priorities and our day-to-day work. We're striving to make our state a better place to live, work and visit by connecting people and communities – enabling safer, easier and more reliable journeys, however they choose to travel.

Transport develops, implements and manages a broad range of legislation, programs and campaigns to support our safety vision for the community, including reduced road trauma, increased mobility and improved placemaking. Ensuring the safety of people using NSW road, rail and maritime networks is central to our vision of achieving people and planet positive journeys.

Transport has committed to achieving our goal of no fatalities or serious injuries on our network by 2056. This ambitious goal is supported by the [Road Safety Plan 2021](#) and the [Maritime Safety Plan 2021](#) and is embedded within our long-term planning through our [Future Transport Strategy 2056](#).



With more than 600 million trips made on our network per year and approximately two million people on NSW waterways annually, the safety of our people and customers is our number one priority.

Together with key partners, including police, local government, the education sector and community groups, we are working to achieve our safety goal and are regarded as a world leader in safety.



About Transport Road and Maritime Safety 2021 outcomes

Road safety

- Continued roll out of the five-year, \$822 million NSW Safer Roads Program to deliver road safety infrastructure, such as safety barriers, audio tactile line marking and traffic calming measures, including \$640 million to save lives on our country roads
- Introduction of new legislation targeting those who drive with a combination of alcohol and illicit drugs
- Commenced delivery of enhancements to the NSW Mobile Speed Camera Program to align with best-practice and are continuing to raise awareness that speeding drivers can be caught anywhere-anytime through increased advertising and signage
- Announced \$20 million expansion of the Driver Licensing Access Program, which assists Aboriginal and disadvantaged people to obtain and retain their driver licence and remain safe and legal drivers
- Delivered the Motorcycle Clothing Assessment Program (MotoCAP), a world-first star rating system for motorcycle clothing to encourage manufacturers to produce protective clothing and encourage riders to better consider safety in their purchasing choices
- Continued expansion of 40 km/h High Pedestrian Activity Areas and other lower speed zones to improve safety and create sustainable places that prioritise the walking needs of people.

Maritime safety

- Developed new boating safety alerts to reach boaters with general safety and weather alerts. Installed three trial Variable Messaging Signs (VMS) at high-traffic boat ramps across NSW, along with new safety alerts issued by Deckee companion app and target alerts via social media
- Enhanced digital engagement through a new [boating safety website](#) to provide customers with interactive tools to select a suitable lifejacket, find the nearest lifejacket-servicing location and educational boating safety content
- Refreshed and updated the [NSW Boating Handbook](#) to clarify boating rules and regulations for boaters.



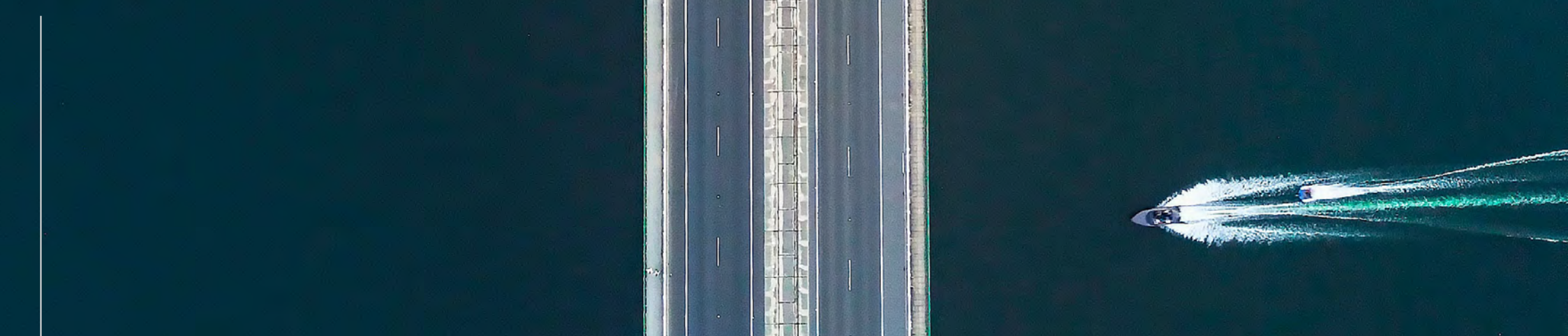
2026 Road Safety Action Plan

The [Road Safety Plan 2021](#) (RSP 2021) included targeted countermeasures to reduce trauma in NSW with a target of reducing road fatalities by 30 per cent from 2008-2010 levels by the end of 2021. Measures from the RSP 2021, delivered through the Community Road Safety Fund, have reduced the road toll and put NSW on track to achieve this target.

The [2026 Road Safety Action Plan](#) (2026 RSAP) is based on the internationally recognised [Safe Systems approach](#) to road safety, will include new trauma reduction targets, high-benefit road safety initiatives and is aligned with the [Future Transport Strategy 2056](#) goal of zero road trauma. Stakeholder and community consultation was conducted to develop the new 2026 RSAP and its priority actions for delivery over five years from 2022.

Maritime Safety Plan 2026

Transport's [Maritime Safety Plan 2021](#) (MSP2021), also based on the Safe System approach, lists a comprehensive list of initiatives aimed at reducing fatalities and serious injuries by 30 per cent. Extensive stakeholder engagement was conducted through forums and workshops from November 2020-September 2021 to assist with creating the draft [Maritime Safety Plan 2026](#) (MSP2026). Building on the MSP2021, the draft MSP2026 analyses fatality and injury safety data and develops countermeasures to reduce or mitigate risks to make every waterway journey as safe as possible.



Aboriginal Maritime Safety Plan 2022

NSW waterways connect Aboriginal people to family, are a means of transport and are important places for participating in cultural events. As such, safety is central to the practice of freshwater and saltwater culture in NSW. The NSW Government launched its inaugural [Aboriginal Maritime Safety Plan 2020-22](#), delivering on an action in the MSP 2021 and supporting the vision of Transport's [Reconciliation Action Plan 2019-2021](#).

It was developed with the community, and for the community, to identify key opportunities to change behaviours that will help reduce fatalities and serious injuries involving Aboriginal people on NSW waterways. It also seeks to contribute to improved cultural, educational and employment outcomes for Aboriginal people.

Marine Estate Management Strategy 2018-2028

Transport is working as part of the Marine Estate Management Authority and non-government partners to deliver safe and sustainable boating across NSW. This work forms part of the NSW Government's [Marine Estate Management Strategy 2018 – 2028](#) and seeks to balance protection of coastal and marine habitats and species, with ongoing access and safe and sustainable boating. Key achievements include:

Trialling a new type of mooring apparatus, known as environmentally friendly moorings (EFMs), to protect sensitive seagrass communities in Shoal Bay

Established a research collaboration with CSIRO to explore a further EFM trial to test performance against different variables, as well as gaining better understanding of any carbon offset potential

Amendments to the [Marine Pollution Act 2012](#).





A message from Julie Morgan

Executive Director, Environment and Sustainability
Transport for NSW

We are incredibly proud to be launching Transport's inaugural sustainability report.

When we first came together to discuss the future direction of Transport's sustainability efforts, we wanted to build on the journey we have already been on and strive for world-leading outcomes. Taking the strategic direction we had set in our Transport Sustainability Plan, we considered how to best embed this in our day-to-day decision making.

We wanted sustainability to be part of how we think, talk and measure success and to set a new benchmark for sustainability leadership.

As we embarked on our mission to become a leader in sustainable infrastructure, we identified eight focus areas and key targets for investment and support.

From increasing public transport use to reducing transport-related emissions, we are progressively setting targets to help us to deliver on our vision of creating a NSW where every journey is people and planet positive.

We have been pushing boundaries and unlocking innovative solutions on many of our projects right across Transport – but until now, we did not have an organisation-wide set of targets, decision-making tools or a reporting framework to enable a whole-system approach.

While sustainability is often being done well at a project level, our sustainability report is an opportunity to bring together the innovation and leadership efforts occurring across the organisation and in collaboration with our government and industry partners to create greater value and impact for our organisation, customers and community. In uniting our people through the sustainability work they're undertaking across the organisation, we're also enabling them to share their stories, challenges and knowledge. This, in turn, allows us to create efficiencies and champion our successes.

This report enables us to lay out a pathway for the future and provide a long-term vision for our incredibly passionate people who are already working to create a more sustainable future. From the sustainability leadership and commitment of individuals we have built the foundation for our organisation to create positive change. Their passion has fuelled Transport's sustainability innovation and leadership on a range of key projects in recent years.

With the launch of our first Transport Sustainability Report, we are excited at the possibilities ahead of us. This has been a key moment for us to take stock of some of the achievements around the organisation, and to gauge the work we need to complete to achieve our goals.

We look forward to sharing our progress with you as we bring our sustainability vision to life and we welcome your feedback along the way. You can share your feedback by emailing environmentandsustainability@transport.nsw.gov.au.

Alignment with Transport objectives



In striving to deliver our sustainability vision of a NSW where every journey is people and planet positive, we are aligned with broader Transport objectives.

These include our long-term vision, as laid out in Future Transport 2056, which aims to ensure we are adaptable and respond to the evolving needs of our community in future decades. The strategy foreshadows the large economic and societal shifts we will see and places the customer at the centre of everything we do.

It will prepare us to respond to rapid changes in technology and innovation to create and maintain a world-class, safe, efficient and reliable transport system.

[Asset Management Framework](#)

Asset Resilience Strategy

[Future Transport 2056](#)

[Transport 10 Year Blueprint](#)

[Future Transport Technology Roadmap 2021-2024](#)

Corporate Plans and Divisional Plans

[Future Energy Strategy](#)

Environment and Sustainability Management Framework

[Transport Reconciliation Action Plan](#)

[Maritime Safety Plan 2017-2021](#)

[Road Safety Plan 2021](#)

[Transport Environment and Sustainability Policy](#)

[NSW Climate Change Policy Framework](#)

[NSW Waste and Sustainable Materials Strategy 2041](#)

[NSW Government Resource Efficiency Policy 2019](#)

Transport Sustainability Plan 2021

[Transport Aboriginal Participation Strategy](#)

Transport People Strategy



✓ **Asset Management Framework**

Outlines our key systems, governance, processes and planned improvements that advance asset management maturity to provide a structured and systematic approach to asset management for the long-term sustainable management of assets and delivery of services to our customers. It aligns with corporate and state government planning as well as Transport objectives and integrates with other internal management frameworks.

✓ **Asset Resilience Strategy**

Directs how asset resilience planning will form part of all asset-planning decisions like prioritisation, design, construction, maintenance, safety, sustainability, security and availability and proposes candidate asset resilience programs for the NSW Resilience Betterment Fund to improve asset resilience in high-risk areas.

✓ **Future Transport 2056**

Sets our long-term vision, directions and principles for the future of Transport in NSW, guiding transport investment over the longer term.

✓ **Transport 10 Year Blueprint**

Lays out our desired outcomes, ambitions and strategic priorities for the next 10 years.

✓ **Future Transport Technology Roadmap 2021-2024**

Putting NSW at the forefront of using innovative technologies to transform transport for our customers.

✓ **Corporate Plans and Divisional Plans**

Key activities, initiatives and projects to be developed for the next one to five years.

✓ **Future Energy Strategy**

Outlines Transport's commitment to securing our transport energy needs from sustainable sources and supports the transport sector's transition to net-zero emissions by 2050.

- The [Future Energy Action Plan](#) defines the near-term initiatives for achieving the Future Energy Strategy objectives.
- [NSW Government's Electric Vehicle Strategy](#) The NSW Government's EV Strategy will drive sales of EVs to more than 50 per cent of new car sales by 2030-31, preparing the NSW road network for a low-emissions future.

✓ **Environment and Sustainability Management Framework**

Guides Transport on governance and assurance across its operating agencies and contractors, to achieve enhanced sustainability and environmental outcomes in a consistent and integrated way.



✓ **Transport Reconciliation Action Plan**

Acknowledges and pays respect to the role of Aboriginal and Torres Strait Islander peoples as custodians of the lands where we work and demonstrates our commitment to working towards reconciliation both within Transport and in communities across NSW.

✓ **Maritime Safety Plan 2017-2021**

Sets out initiatives which aim to reduce fatalities and serious injuries by 30 per cent and lays the foundation for the drive towards the long-term target of zero fatalities on the water.

✓ **Road Safety Plan 2021**

Targeted and proven initiatives that will help progress towards our road safety goals, addressing key trends, trauma risks and the types of crashes occurring on NSW roads.

✓ **Transport's Environment and Sustainability Policy**

Guides Transport as a key enabler of economic and social activity and articulated out commitment to delivering transport which contributes to economic prosperity and social inclusion in an environmentally responsible and sustainable manner, consistent with the Future Transport Strategy 2056.

✓ **NSW Climate Change Policy Framework**

Outlines the NSW government's long-term objectives to achieve net-zero emissions by 2050 and make NSW more resilient to a changing climate.

✓ **NSW Waste and Sustainable Materials Strategy 2041**

Focused on improving the state's policies and targets for waste reduction, landfill diversion and recycling, the NSW Waste and Sustainable Materials Strategy 2041: Stage 1–2021-2027 also examines the environmental benefits and economic opportunities in how we manage our waste.

✓ **NSW Government Resource Efficiency Policy 2019**

Designed to reduce the NSW Government's operating costs and lead by example in increasing the efficiency of its resource use.

✓ **Transport Sustainability Plan 2021**

An internal planning document designed to achieve Transport's sustainability vision of creating a NSW where every journey is people and planet positive. It outlines sustainability goals and is designed to make sustainability simple, consistent and transparent setting the foundation for the annual Transport Sustainability Report.

✓ **[NSW Circular Economy Policy Statement 2019](#)**

The [NSW Circular Economy Policy Statement](#) will help guide NSW Government decision making as we transition to a circular economy. It sets the ambition and approach for a circular economy in NSW, and provides principles to guide resource use and management.

Alignment with the United Nations Sustainable Development Goals



Government and business have a key role in addressing the United Nations (UN) Sustainable Development Goals (SDGs) by 2030.

At Transport, we collaborate with a broad range of stakeholders from industry, domestic and international government agencies, and our communities across NSW. With our scale and reach, Transport is in a key position to drive positive impact at scale and accelerate progress towards achieving the 2030 goals.

Transport has aligned our eight focus areas with the UN SDGs, and in future reports we will provide an update on how we are progressing against them.





Sustainability focus area

Respond to climate change



Sustainability goals

Consider climate change risks in all decisions

Net zero emissions by 2050

Alignment to the United Nations Sustainable Development Goals



Sustainability focus area

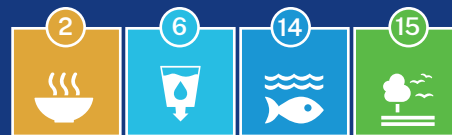
Protect and enhance biodiversity



Sustainability goal

No net loss of biodiversity

Alignment to the United Nations Sustainable Development Goals



Sustainability focus area

Improve environmental outcomes



Sustainability goals

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

Alignment to the United Nations Sustainable Development Goals





Sustainability focus area

Procure responsibly



Sustainability goals

All suppliers meet the standards in the Transport Supplier Sustainability Charter

Social and environmental outcomes are included in all procurement decisions

Go beyond minimum compliance targets in Aboriginal Procurement Policy

Alignment to the United Nations Sustainable Development Goals



Sustainability focus area

Partner with communities



Sustainability goals

Always leave a positive legacy for communities as a result of projects

Enable, apply and report on community engagement

Alignment to the United Nations Sustainable Development Goals



Sustainability focus area

Respect culture and heritage



Sustainability goals

Aboriginal culture integrated and preserved

Acknowledging and incorporating culture through stories, examples, best practice

Alignment to the United Nations Sustainable Development Goals





Sustainability focus area

Align and spend impact



Sustainability goals

All decisions consider value created from sustainability alongside financial analysis

Reduce whole of life costs for the transport network

Alignment to the United Nations Sustainable Development Goals



Sustainability focus area

Empower customers to make sustainable choices



Sustainability goal

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

Alignment to the United Nations Sustainable Development Goals



A look at the year

Respond to climate change



Respond to climate change

Why it is important



Climate change is the global challenge of our times. Human activities have driven an increase in Australian land temperatures to approximately 1.4°C above pre-industrial levels.

These increases will have significant consequences for our planet, including continued warming of ocean and land temperatures, more extreme heat events, heavy rainfall events, and a higher likelihood of drought in some regions.

We are already feeling the impacts of a changing climate in NSW. From the Black Summer fires, to the effects of heatwaves, flooding and coastal erosion, the evidence of a warming planet is unmistakable.

Transport's ability to mitigate and adapt to this crisis with our existing and future infrastructure projects is critical to our success. The construction and operation of Transport's network contributes to greenhouse gas emissions –and we have the potential to reduce them significantly. We strive to provide a world class, sustainable transport system that meets customer expectations and boosts the economic development of the state. We recognise that the impacts from climate change pose a significant risk to our business, infrastructure assets and the communities we serve and are committed to building climate resilience across our network.



Goals

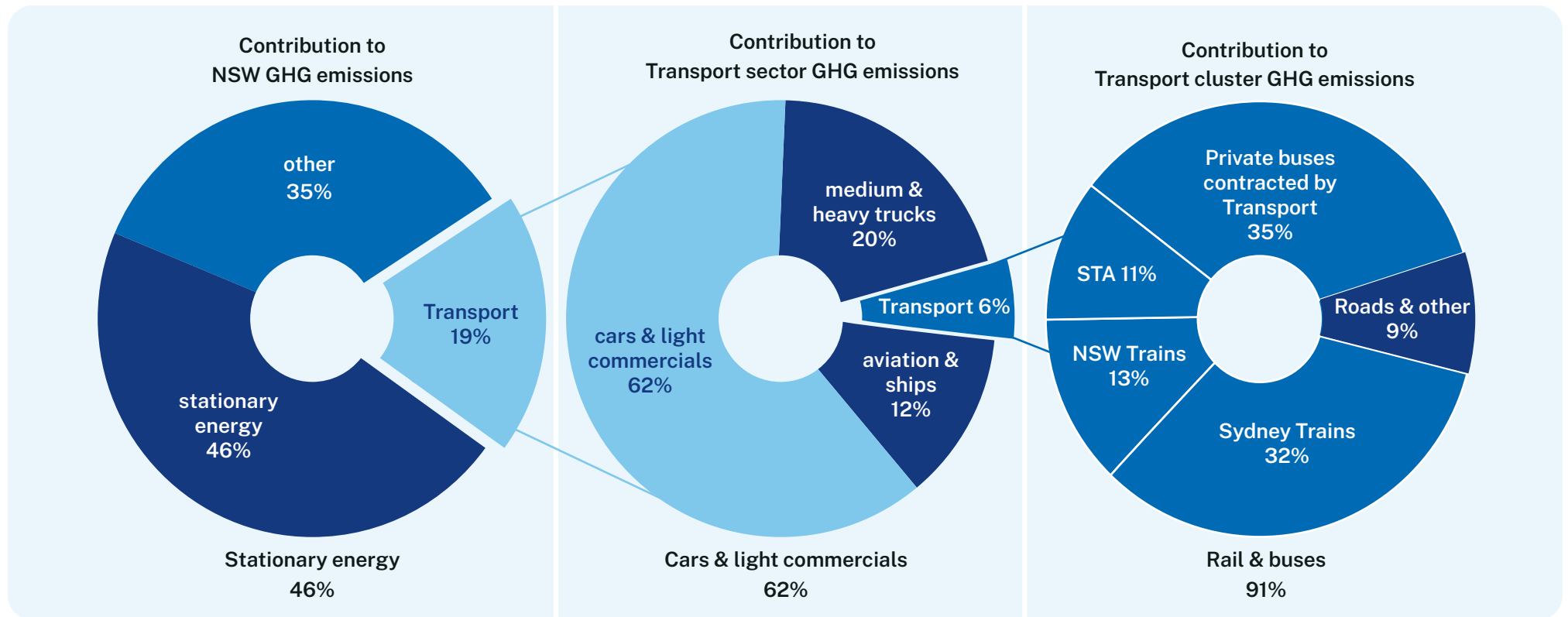
- Net zero emissions by 2050
- Consider climate change risks in all decisions

Overview

We recognise that our transport network makes a significant contribution to the state’s greenhouse gas emissions and take our role in transitioning to low-carbon options seriously.

The wider transport sector represents about 20 per cent of NSW greenhouse gas emissions, with our services contributing around six per cent of the total transport sector emissions. Rail and buses total about 90 per cent of scope 1 (direct) and scope 2 (indirect) emissions from our services. Our ferries, depots, offices, street lights and vehicle fleet make up the remaining ten per cent of direct emissions.

Our transport network spans NSW and is exposed to climate risks, such as extreme temperatures, sea-level rise, extreme rainfall and bushfires. We conduct climate change risk assessments to ensure our assets are climate resilient. These consider risk across the whole of an asset’s lifecycle – from planning to design, construction and operations. They assess the likelihood, consequence and severity of impacts, including likely costs, and we incorporate the findings into decision making. For new or modified assets, we conduct risk assessments early in the project lifecycle.





Our challenges

The transport sector uses more energy than any other part of the NSW economy. It is second only to the energy industry in greenhouse gas emissions. Emissions from transport are dominated by on road transport. The transport sector is a growing source of greenhouse gas emissions. It is projected to overtake the energy industry and be the largest source of emissions in the NSW economy by 2030. Increasing emissions from heavy vehicles, aviation and shipping are driving the growth.

Transport does not have direct control over road transport emissions. Encouraging the reduction of emissions outside of those directly produced by Transport's activities and operations is a crucial challenge. Electrification can significantly reduce greenhouse gas emissions from passenger and light commercial vehicles. However, there is no market-ready technology to significantly decarbonise heavy vehicles.

The potential impacts of climate change on our extensive transport infrastructure network are key considerations for Transport, with our network exposed to multiple climate change risks. It will be challenging to implement climate change risk assessment processes consistently. These processes need to identify which risks are the most severe across our network and also the best value approach to mitigating those identified risks.

Respond to climate change

Our approach



We have set a challenge to transition the entire NSW fleet of 8000-plus buses to zero-emission vehicles, as outlined in the [Zero-Emission Bus Transition Strategy](#).

Transport is committed to rapidly reducing our greenhouse gas emissions. Our [Future Energy Strategy and Action Plan](#), released in March 2021, outlines actions to support the transport sector's transformation to net-zero emissions by 2050.

Core actions include net-zero electricity for the electric rail network by 2025, reducing energy demand, implementing energy efficiency opportunities and transitioning to zero-emission buses which provide cleaner air quality, lower noise pollution and lower operating costs. We have set a challenge to transition the entire NSW fleet of 8000-plus buses to zero-emission vehicles, as outlined in the [Zero-Emission Bus Transition Strategy](#).

Transport will also assess climate change risks to our network. It will design and deliver a Transport network that is resilient to sudden shocks and long-term stresses, and responsive to climate change. Our [Climate Risk Assessment \(CRA\) tool](#) uses the latest NSW data from NSW and ACT Regional Climate Modelling (NARClIM) 1.5, Sharing and Enabling Environmental Data (SEED) and The Bushfire and Natural Hazards Cooperative Research Centre (BNHCRC).

It extracts climate indicators (past and future) for a representative set of our assets, including train stations, bridges, light rail and ferry wharves. The [CRA approach](#) has been applied to develop risk profiles during the design of More Trains More Services 2 and 3, the Commuter Car Park program, Faster Rail, Kiama to Bomaderry, Circular Quay and the Transport Access Program 3. The methodology aligns with Infrastructure NSW (iNSW) Gateway Reviews – independent expert reviews conducted on project development and delivery.

While we have a number of state-significant projects in the development pipeline, much of our network is operational and includes ageing assets. Maintenance of these assets presents an opportunity to strengthen climate resilience through implementation of mitigation and adaptation measures. Upgrades provide opportunities to make improvements to assets, such as drainage infrastructure, structures, signalling and overhead wiring.

Climate Risk Assessment for projects

0 Project registration/ INSW Gate 0

General pre-screening

Identify options for selection and assess risks. Demonstrate strategic alignment with government policies and objectives.

1 Project definition (SBC/INSW Gate 1)

Embedding CRA into Asset Management and Risks Management Framework

Detailed pre-screening for tier 4 projects
Identify options for selection and assess risks. Demonstrate strategic alignment with government policies and objectives.

2 Preliminary design (FBC/INSW Gate 2)

Inclusion in preliminary Environmental Impact Assessment

Complete CRA + CRA report

Identify high/very high risks and adaption feasibility of adaption measures, estimate implementation cost.

3 Detailed design

Inclusion into the design reports and Environmental Impact Assessment.
Integration into Asset Management Plan.

Adaption measures refinement and inclusion in the design reports.

Ensure that an asset operates according to Transport asset management objectives.

4 Construction

Opportunity to enact the adaption actions identified during design

Quality check

To ensure that built assets meet the design report requirements for the adaption measures.

5 Operation and maintenance

Highlights potential challenges and opportunities to improve climate adaption for future projects.

Monitoring of climate impacts

Data collection and analysis. Lessons learnt.

Respond to climate change

Our achievements



Electric buses for quieter and cleaner trips

The transport sector represents one of the largest and fastest growing sources of greenhouse gas emissions globally, and accounts for approximately 20 per cent of NSW's carbon dioxide emissions. Transport's direct emissions account for around six per cent of transport sector emissions. Diesel and compressed natural gas buses make up almost half of Transport's direct emissions, so transitioning our fleet will be an important contribution to delivering on the NSW Government's commitment to net zero emissions by 2050.

Technical planning is currently underway for the transition of the NSW bus fleet to zero emission buses as part of our commitment to achieve net-zero emissions by 2050. In partnership with industry, we will transition our 8000-plus bus fleet over a number of years to ensure sustainable and customer-focused outcomes.

The transition to zero emission buses will result in a 46 per cent reduction of emissions across Transport's operations and has potential environmental and health cost savings of \$1-2 billion over 30 years.

Electric buses are quieter, cleaner and have zero tailpipe emissions. This makes them ideal for preserving the amenity of local places and safer to operate in tunnels and underground interchanges due to reduced nitrous oxides and fine particulates. They also contain telematics and can provide on board driver training and assessment.

Other benefits include:

- Potential boost to NSW economy and regional industry development
- Skills growth in emerging technology
- An opportunity for improved amenities and social benefits around bus depots
- Lower operating costs of Battery Electric Buses compared to diesel buses

In parallel, Transport has been running a series of trials of zero emission buses to better learn and understand the technology. Results from the trials to date have shown that electric buses can perform the required operating range and hours in Greater Sydney. Further trials have been planned to test other aspects of the transition, such as hydrogen-powered electric buses, large scale depot upgrades and integrated system management platforms.

With the success of this and other zero emission bus trials, more electric buses will start replacing buses that currently run on diesel and compressed natural gas. By late 2021, we expect there to be around 45 zero emission buses operating around Sydney. These are significant steps towards the NSW Government's objective of replacing its 8000-strong bus fleet with zero-emissions technology by 2030 and the long-term commitment of reaching net-zero greenhouse gas emissions by 2050.

This will result in significant environmental and health benefits for the people of NSW and more financially sustainable bus operations in the longer term.



Sydney Metro Northwest

Sydney Metro has sourced 100 per cent of the operational electricity consumption requirements for the Northwest line from renewable energy via a power purchase agreement with the Beryl Solar Farm in regional NSW, avoiding 67,694 tCO₂e of greenhouse gas emissions.

Cross Dependency Initiative (XDI)

We are participating in the Cross Dependency Initiative project (XDI), led by Climate Risk Engines and the NSW Department of Planning, Industry and Environment. The initiative will develop a computational tool to help identify cross-dependent climate change impacts in water, electricity, transport, telecommunications and built environment infrastructures. The tool will encourage 'collaborative adaptation' so that all affected providers can contribute to the costs of upgrading or replacing an asset, creating considerable savings compared to adapting their own assets. Foundation Partners include: Transport for NSW, Sydney Water, City of Sydney and the Environment, Energy and Science.

Electric vehicle charging stations at Leppington and Edmondson Commuter Carparks

The [NSW Government's Electric Vehicle Strategy](#) focuses on future mobility and technology innovations to modernise transport for the community and businesses across NSW. Transport technology is evolving and people now have more options in the vehicles they use, including electric and hybrid vehicles. Electric vehicles offer significant economic and environmental benefits over conventional internal combustion engine vehicles, contributing to a modern and cleaner energy future. While we do not have direct control over emissions generated by on-road transport, our plan commits to co-investing in the electric vehicle charging infrastructure across NSW. We are working with charging suppliers and councils to increase the network in regional NSW and commuter car parks to provide customers access to public transport at key transport interchanges. The Leppington and Edmondson commuter carparks will each provide 10 electric vehicle charging spaces to provide facilities for those customers that drive electric vehicles and motorbikes.

Regional Rail Fleet adopts bi-mode technology

Transport for NSW is introducing bi-mode (dual diesel-electric) technology to the new Regional Rail Fleet, entering service progressively from 2023. The fleet's 29 new bi-mode trains will be able to transition to the high voltage electricity network in the Greater Sydney, Lithgow, Kiama and Newcastle regions. The switch to dual diesel-electric hybrid technology will reduce greenhouse gas emissions by 540 tonnes and diesel pollutants by three tonnes annually, as well as save approximately \$2 million each year in diesel fuel costs. These emission reductions will also result in approximately \$1 million in savings through associated health and environmental benefits.

Wye and Waratah Station upgrades

The Waratah and Wye Station upgrade works were completed as part of the Transport Access Program, Tranche 3 (TAP3) Program, which is a NSW Government program to improve station accessibility for people with mobility challenges. The stations were awarded a 'Leading' As Built rating by the Infrastructure Sustainability Council (ISC), following the project's achievement of numerous sustainable outcomes. The projects achieved a 32 per cent reduction in greenhouse gas emissions across the life of the project by specifying energy efficient LED lighting and heating, ventilation and air conditioning (HVAC) systems and implementing adaptation measures for all extreme and high climate change risks.

Regional Rail Initiative, Mindyarra Maintenance Centre – Dubbo

The 'Mindyarra' Maintenance Centre in Dubbo, named after the Wiradjuri word meaning "to fix or repair", will service the new Regional Rail Fleet. The Centre will use Holcim's ViroDecs carbon neutral concrete, saving an estimated 4950 tonnes of greenhouse gas emissions. At least 95% of the Centre's low-voltage energy will be supplied by onsite solar technology, with the remainder offset through carbon credits. A 100 kilolitre rainwater tank to be installed, with back-up bore water, for operational usage such as train washing and irrigation.

Net-zero greenhouse gas emissions for the commuter car parks program

The current Commuter Car Parks Program will provide convenient access to public transport at key transport interchanges and help to ease road congestion. One aim of the program is to provide a net zero emissions outcome, once operational, by using energy generated from solar photovoltaic (PV) systems installed on the car park rooftops. Technical modelling and a whole-of-life analysis for the program's eight multi-storey, seven at-grade car parks containing 6499 car park bays, has assessed the viability of PV and battery storage options, including the feed-in of excess solar energy to the local energy network. The commuter car parks will include installed electric vehicle charging facilities and charging ready electrical connections, for when the car parks are ready to take on more electric vehicle charging stations in the future.



Using waste mulch for power generation

The Springvale Bridge abutment rehabilitation project required the removal of several large multi-stemmed camphor laurel trees, a non-native weed tree, due to their potential to cause root-jacking to the reinforced earth wall supporting the bridge abutment. The project created mulch from the removed trees, which was then sent to a biomass power station at Broadwater and used as a biofuel to generate electricity. The electricity is supplied to the sugar mills, and surplus electricity exported into the national grid, providing renewable, cost-effective power, and avoiding large costs for disposal of the weed trees at a licensed waste facility.

Sydney Trains Energy Management Program

In 2020, Sydney Trains introduced an Energy Management Program to explore emission reduction initiatives. This program builds on work already delivered such as energy efficient LED lighting upgrades across 117 of our stations, replacing 16,000 fluorescent lights with LED on our Tangara fleet and the implementation of electricity sub-metering at 106 locations to better understand and manage our energy use.

Initiatives being examined under the new Program include:

- Installing a number of large behind-the-meter solar photovoltaic (PV) installations
- Developing and implementing a plan to make our electricity net-zero emissions before 2025
- Implementing an enterprise-wide energy data management system
- Trialling enhancements to the Heating Ventilation and Air Conditioning (HVAC) systems on our Waratah series trains with the potential to improve HVAC energy efficiency by up to 20 per cent
- Assessing options for recovering and reusing excess regenerative braking energy.

Respond to climate change

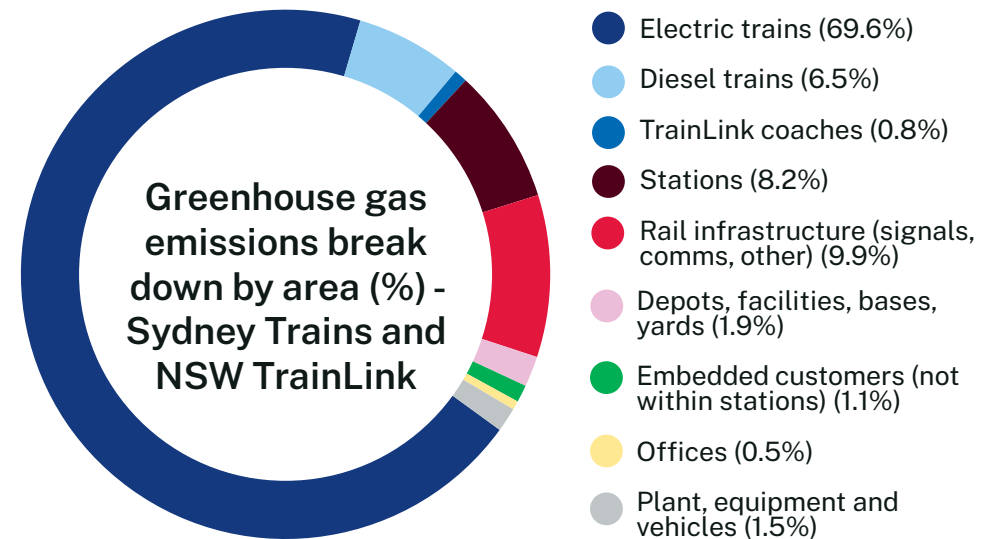
Performance data



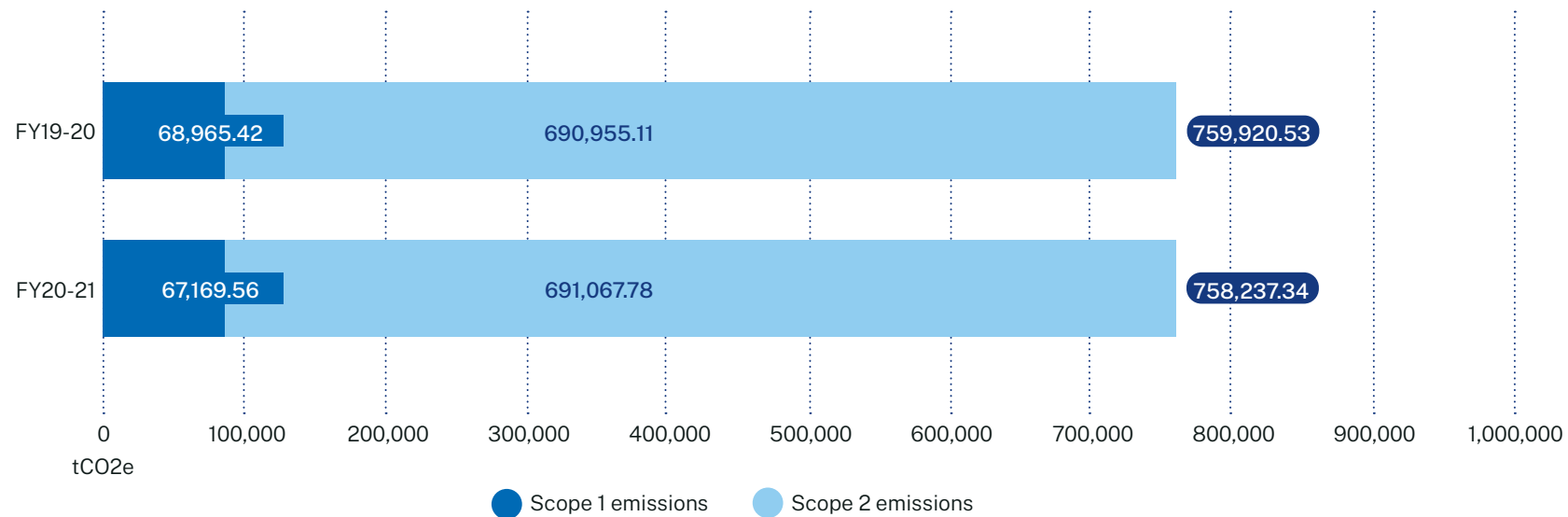
Energy and greenhouse gas emissions

Total emissions - Sydney Trains and NSW TrainLink

| Table 1: Area | tCO2e | % |
|---|----------------|-------------|
| Electric trains | 541,765 | 69.6% |
| Diesel trains | 50,957 | 6.5% |
| NSW TrainLink coaches | 6234 | 0.8% |
| Stations | 64,200 | 8.2% |
| Rail infrastructure (signals, comms, other) | 77,117 | 9.9% |
| Depots, facilities, bases, yards | 14,531 | 1.9% |
| Embedded customers (not within stations) | 8225 | 1.1% |
| Offices | 4223 | 0.5% |
| Plant, equipment and vehicles | 11,513 | 1.5% |
| Total | 778,765 | 100% |



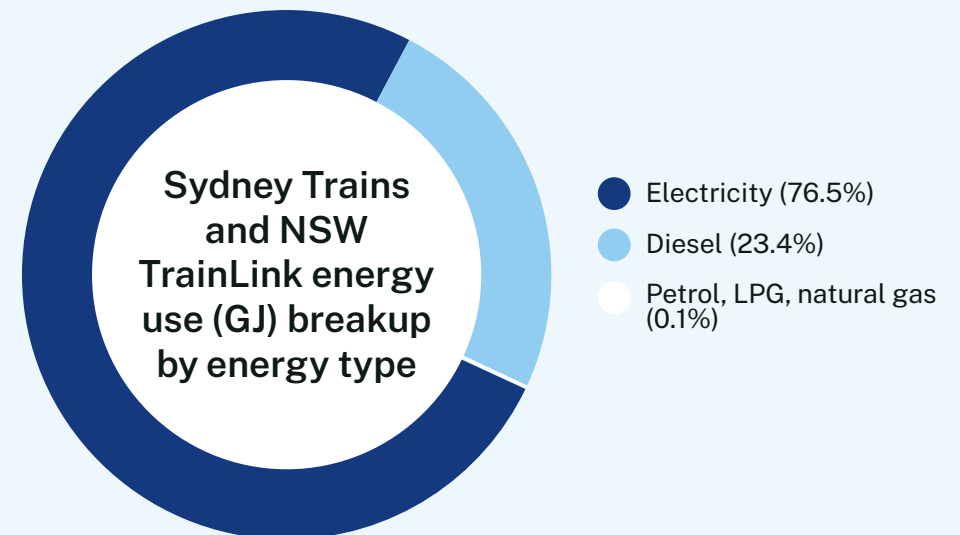
Sydney Trains and NSW TrainLink scope 1 and 2 GHG emissions– tCO2e



Note: the totals in this graph differs from table 1 because it does not include on-sold energy.

Table 1 includes all embedded customer energy use.

| Table 3: Fuel type | GJ | % |
|--------------------------|------------------|-------------|
| Electricity | 3,155,583 | 76.5% |
| Diesel | 963,695 | 23.4% |
| Petrol, LPG, natural gas | 4935 | 0.1% |
| Total | 4,124,213 | 100% |



Protect and
enhance
biodiversity



Protect and enhance biodiversity

Why it is important



With Transport's infrastructure network growing, we have a key role to play in building and operating infrastructure that has the least possible impact on biodiversity.

Australian ecosystems are rich in biodiversity – that is, the variety of life forms, including flora and fauna. Many Australian species are not found anywhere else in the world. Our plants, animals and ecological systems face numerous and wide-ranging threats.

Long established threats, such as habitat fragmentation and invasive species, will continue, and emerging threats, such as climate induced changes to fire regimes and increased droughts, will intensify existing threats well into the future ([DECCW 2010](#)).

Transport corridors often contain important biodiversity that is rare in the surrounding landscape. The construction and operation of transport infrastructure needs to be managed to avoid, minimise, mitigate and offset the impact on surrounding ecosystems and habitat connectivity. With Transport's infrastructure network growing, we have a key role to play in planning, building and operating infrastructure that has the least possible impact on biodiversity. We also have an important role in actively considering and managing biodiversity issues for roads and other infrastructure projects being carried out by others where we are a determining authority under Part 5.1 of the [Environmental Planning & Assessment Act 1979](#).

Transport is committed to protecting biodiversity, which is vital for the survival of flora and fauna, genetic diversity, and the natural ecosystems which provide clean water and air as well as contribute to food security and human health. We work with local councils and communities to ensure the environments in which Transport operates are cared for, protected, enhanced and regenerated.



Goals

- No net loss of biodiversity



Overview

There are around 185,000 kilometres of public roads and 9400 kilometres of rail infrastructure in NSW. Some of this includes vegetated sections of road, rail, drainage lines and waterways, or linear reserves.

The linear reserve network covers around six per cent of NSW and contains important native flora and fauna and their habitats. The linear nature of most infrastructure means that direct and ongoing edge effects on biodiversity is unavoidable. Additionally, transport infrastructure creates increased movement and density of people. With hundreds of millions of trips being taken on our network every year, it is imperative to maintain and prioritise habitat connectivity.

Our priority is to avoid, minimise, mitigate and offset impacts on biodiversity at all stages of the infrastructure development process. We do this through a number of mitigation measures including the provision of dedicated fauna connectivity structures under new roads, installing rope bridges and glider poles for possums and gliders, excluding fauna from road corridors through fencing, and promoting fish passage through well-designed culverts and bridges.

Our challenges

With increasing demand for more and improved infrastructure, we recognise the impact our construction projects and transport services have on biodiversity. Route selection for new infrastructure must balance the impacts on biodiversity, alongside environmental considerations such as noise, heritage, and existing land-uses.

The communities in which we operate are concerned about the biodiversity impacts from infrastructure on iconic species, such as the koala. All new Transport projects in greenfield areas address both direct and indirect impacts.

However, our ongoing indirect impacts, such as wildlife vehicle strike, could be improved through emerging technologies including those that improve driver awareness of potential vehicle strike hotspots. Communities are concerned about vegetation removal in rural and urban areas. An ongoing commitment to provide biodiversity offsets and tree replacement programs is important for us to address biodiversity loss and the urban heat island effect of increased hard surfaces and decreased tree canopy cover.

Protect and enhance biodiversity

Our approach



Transport participates in the Biodiversity Offset Scheme, with the aim of going beyond the statutory offset requirements, where possible.

Transport has a goal of achieving no net loss in biodiversity. Our key strategy is to avoid impacts on biodiversity where possible, through detailed biodiversity assessment to guide route selection, or infrastructure alignment choices, to avoid sensitive biodiversity areas. Where we can't avoid these areas, we apply techniques to mitigate our impacts. Transport's [Biodiversity Guidelines](#) are designed to guide construction activities to protect environmentally-sensitive areas including riparian areas. They help projects manage pre-clearing processes, successfully establish native vegetation, re-use woody debris and bushrock, manage weeds and pathogens, provide replacement habitat for fauna and set protocols for the welfare of any animals found.

Where residual impacts on biodiversity are unavoidable, Transport participates in the Biodiversity Offset Scheme, with the aim of going beyond the statutory offset requirements, where possible. We do this by helping private landholders generate biodiversity credits and by entering biodiversity agreements over our own residue land. So far, Transport has worked with private landholders to generate more than 16,400 credits across 2022 hectares of land, and generated more than 17,300 credits across 1414 hectares of Transport-owned land.

These agreements establish enduring legal protection over the land and a funded framework for long-term management of flora and fauna and their habitats. Our 'Selling Biodiversity Credits to Transport' [fact sheet](#) is publicly available to explain our approach to purchasing offset credits.

Complimenting the provision of biodiversity offsets, Transport works with local communities to replace amenity and habitat trees lost to infrastructure development and supplements available nesting hollows with artificial hollows in partnership with our conservation partners. Transport is looking at options to extend this work across the infrastructure network as part of our commitment to achieving no net loss.

During 2020-21, the following approved major infrastructure projects triggered the Biodiversity Offset Scheme:

- Western Harbour and Warringah Freeway Upgrade
- M6 Extension Stage 1 Arncliffe to Kogarah
- Sydney International Speedway – Sydney Metro

Protect and enhance biodiversity

Our achievements



Habitat connectivity in regional NSW

Habitat connectivity is a key strategy to mitigate and minimise impacts of infrastructure programs on biodiversity. The 657-kilometres-long Pacific Highway Upgrade from Newcastle to the Queensland border is an example of our commitment to maintaining habitat connectivity.

Construction of the Pacific Highway Upgrade project has been ongoing since 1996, and has included many innovations for native flora and fauna, including:



Koalas

- Koala vehicle strikes reduced following 480 kilometres of fencing installation and 300 underpasses being created
- Koalas have been recorded in dedicated and combined-purpose underpasses, bridge and dedicated fauna overpasses
- 130 hectares of koala food trees planted on former sugar cane fields providing in perpetuity habitat for koalas
- Construction and use of three dedicated fauna overpasses for the Yelgun to Chinderah and Bonville upgrades.



Possums and gliders

- Installation, monitoring for ongoing design refinements of more than 35 glide poles, proven to provide connectivity for Yellow-bellied, Squirrel, Sugar and Feathertail Gliders
- More than 20 additional rope crossings for non-flying mammals, such as possums.



Native fish

- Rehabilitated habitat on Woolgoolga to Ballina Upgrade project was re-occupied by threatened Oxleyan Pygmy Perch, a first for this species anywhere, and was supported by a fish capture and relocation program
- Additional compensatory habitat constructed nearby by modifying natural shallow waterways to create deeper drought refuge pools for local populations, another first for this species.



Flora

- 16 threatened flora species directly impacted by Woolgoolga to Ballina project have been re-established close by in the local area, with works involved using the soil seedbank to propagate plants, including Singleton Mint Bush, Four-tailed Grevillea and the Tall Knotweed
- Six species were translocated on the Warrell Creek to Urunga Project
- Ongoing monitoring and research with early results is published in peer reviewed journals.

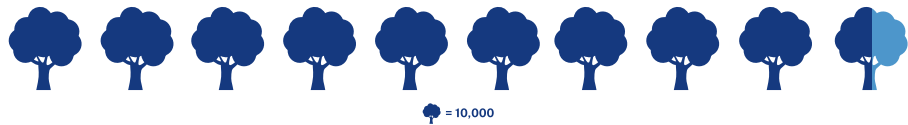


Emus

- Road bridges on the Woolgoolga to Ballina project designed to accommodate Emu movement, combined with specially-designed hybrid fences allowing emus to pass and exclude cattle.



Greening our cities



Transport has planted more than 95,000 trees since 2018, contributing to the Greening our City Premier's priority.

This initiative aims to increase the tree canopy and green cover across Greater Sydney by planting one million trees by 2022, amongst a broader commitment to plant five million trees by 2030.





Barrington and Monkerai Bridge Microbat Habitat Management

The New Barrington Bridge is a concrete structure built in 2020 to replace the original timber truss bridge. The original bridge had an average microbat breeding population of around 38. The project team introduced three types of permanent habitat structures in varying sizes set into the new bridge structure to offset the loss of habitat when the original bridge is removed.

Monitoring has shown evidence of microbat activity and six microbats were found in the new habitat on two monitoring occasions. Similarly, the rehabilitation project of the Monkerai Bridge in 2020, introduced two different permanent habitat types into the bridge girder to attract microbats to roost. Again, monitoring has shown evidence of microbats roosting in this new habitat.

Parramatta Light Rail

Parramatta Light Rail's Grey Headed Flying Fox Monitoring Project has been recognised as best practice in construction management and will be referenced in the National Flying Fox Guidelines. The Monitoring Project has resulted in greatly minimised construction impacts on the local Grey Headed Flying Fox population during their most active breeding period.

Parramatta Light Rail was also awarded a State-First innovation in its Leading Infrastructure Sustainability Design Rating for the first NSW light rail to incorporate a grass track, covering 10 per cent of the alignment. The grass track will contribute to urban cooling and leave a lasting positive impact on sensitive urban spaces.



New Intercity Fleet Maintenance Facility

The New Intercity Fleet Maintenance Facility (known as Kangy Ancy) on the Central Coast has undertaken significant revegetation work including replanting 950 native tree species and more than 200,000 juvenile grasses and shrubs on site, along with 30 nest boxes to provide habitat for native wildlife.

The project has also offset its impact through payment to the Biodiversity Conservation Trust and has supported conservation activities undertaken under the NSW Government's Saving Our Species Programme for Mahony's Toadlet.

New homes for the green and golden bell frogs

The construction of the M8 (formerly new M5) project at Kogarah had the potential to indirectly impact the habitat of the nationally listed green and golden bell frog.

Part of the management strategy was a captive breeding program at Symbio Wildlife Park and a habitat recreation program on Transport land at Arncliffe. Both these programs have progressed well with successful releases of tadpoles to three specially-built frog ponds next to the M8.

Ongoing monitoring is underway to see if these tadpoles will themselves successfully breed.



Davey Road's amphibian friends

New wetlands on the Hume Highway in Albury have been built to provide a habitat for the Sloane's Froglet, a threatened amphibian species, as part of the \$16.5 million Davey Road Interchange project. To minimise impacts to the natural environment during major construction, froglets and tadpoles were salvaged from the project site and released at a safe nearby location while the wetlands were built.

Native grasses were also relocated and replanted at the new wetlands, part of the long-term mitigation measures in place for the local population of the froglet.

Operation Gondwana Rewild - NSW bushfire recovery program

Approximately 15 per cent of Australian fauna rely on hollows for nesting or habitation. Hollows typically only form in trees more than 70-100 years old, however many old growth tree areas were badly affected by the 2019/20 bushfires. Transport, in partnership with government agencies and the community, joined Operation Gondwana Rewild to increase fauna habitat in bushfire affected areas, by installing over 800 carved habitat hollows, 1000 hardwood nest boxes and planting 24,000 native seedlings in partnership with Landcare NSW. The initiative used new technology, Hollowhog, to carve habitat hollows of varying sizes to suit different species. All nest boxes and carved hollows have been georeferenced to allow future monitoring. As each hollow will last for the life of the tree, the project has delivered the equivalent of over 50,000 years of nesting opportunities.



Improve
environmental
outcomes





Improve environmental outcomes

Why it is important

Reducing our reliance on precious drinking water reserves and safeguarding our waterways from pollution will ensure the ongoing health of our flora, fauna and communities.

The construction, operation and maintenance of infrastructure – including the noise it creates – can have significant impacts on the surrounding land, water and air.

Environmental protection strategies have been established to ensure organisations are accountable for addressing and minimising environmental impacts of their activities.

At Transport, we are committed to minimising our impact across land, water and air while meeting community expectations and NSW Government legislative requirements.

By prioritising the use of sustainable materials, we will lower the carbon footprint of materials and foster markets for recycling materials at the end of their life.

Using the [NSW Waste and Sustainable Materials Strategy 2041](#) to inform our approach to waste management and [circular economy principles](#) will increase our waste management efficiency. Reducing our reliance on precious drinking water reserves and safeguarding our waterways from pollution will ensure the ongoing health of our flora, fauna and communities. Minimising impacts to air quality, noise and vibration from Transport projects will benefit health, economic and social outcomes of surrounding communities.

Balancing all of these environmental factors ensures we are considering our projects and the communities, flora and fauna they impact holistically to deliver the most beneficial outcomes.



Goals

- 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



Overview

Together with our customers and community, we are working to improve our environmental outcomes.

Our efforts are focused on diverting waste from landfill, protecting, recycling and recovering valuable materials and preserving drinking water supplies by using less and supplementing this resource with alternative sources.

Technology and innovation are key strategic priorities that are helping us deliver customer-centred outcomes and improve environmental performance to make NSW a better place to live, work and visit.

Our challenges

Transport projects are pivotal to supporting the growth of NSW. However, they can have a substantial impact on the surrounding environment and communities, which is why we are committed to reducing or mitigating our impact wherever possible.

With a significant pipeline of infrastructure projects in the planning, development and construction phases and a vast operational transport network requiring ongoing maintenance, there are a number of competing environmental and sustainability priorities to manage during a project's lifecycle. Some competing priorities include: developing standards that allow for the approval and integration of more sustainable materials in design, while adhering to engineering and design life requirements; selecting environmental improvement measures while managing biodiversity impacts; and managing ongoing operational impacts, such as noise, dust and other air emissions.

Understanding our impact through reliable data and aligned performance management and reporting systems for our people, contractors and industry partners is key for mitigating and improving our environmental performance. Project contractors are required to report on their impact monthly. However, data is often reported differently against performance reporting requirements which can make it challenging to reconcile and analyse.

A review of data management and reporting mechanisms, aligned to the eight focus areas of this report, will inform and improve future environment and sustainability systems, procedures and processes.

Improve environmental outcomes

Our approach



Our Environment and Sustainability Management Framework (the Framework) provides an aligned and consistent approach to meeting environment and sustainability requirements for Transport, our contractors and industry partners.

The Framework defines interdependencies, roles, responsibilities, accountabilities, performance expectations and governance and assurance mechanisms to measure and continuously improve environment and sustainability outcomes.

A suite of procedures, guidelines and training materials accompany the Framework and are integrated into local management systems and contract documentation. These materials ensure legal requirements and stakeholder expectations are met, supporting our people and contractors to undertake consistently high-quality environmental impact assessments for proposals and achieve corporate commitments and statutory responsibilities. A strong focus of 2020-21 was aligning the agency's approach to environmental management by creating a single source of documents and tools.

Transport assures sustainable outcomes through rating tools such as the Infrastructure Sustainability Council Infrastructure Sustainability Rating Tool, Transport Sustainable Design Guidelines and contract compliance reporting.

We are refining multi-modal sustainability objectives and requirements and aligning them to our eight key focus areas, the [Transport Environment and Sustainability Policy](#) and the [Future Transport Strategy 2056](#).

Transport manages millions of tonnes of material on our road project sites each year. The construction and maintenance of roads involves substantial quantities of excavated soil, road building materials and the removal of excess materials and waste.

In road maintenance and construction, we meet the NSW Government's targeted recycling rates for construction and demolition waste. We recycle more than 95 per cent of materials such as concrete, asphalt and virgin excavated natural materials generated during construction, maintenance or demolition.

All construction projects are committed to undertaking regular environmental and sustainability inspections and regular internal and external audits, with six-monthly audits undertaken on major road and rail projects. Performance reviews are used to ensure compliance against environmental requirements, identify and prioritise environmental risks and provide guidance on corrective actions. All environmental incidents are reported through an incident procedure. The cause must be determined and corrective actions implemented.

To prevent incident reoccurrence, we analyse trends, improve procedures and run environmental training sessions and lessons learnt forums for our people and contractors. Further internal educational resources are available, such as newsletters and best practice videos.



We work to minimise our [construction](#) and [operational](#) noise impacts on the environment and the community through all phases of a project, from concept design to construction and operation. Projects are assessed against the relevant NSW Environment Protection Authority [operational](#) and [construction](#) noise guidelines, which outline the NSW Government's approach to assessing and mitigating noise. Our internal policies and guidelines align and work to support the NSW Government's approach. Noise modelling is conducted across project phases to assess and minimise impacts and identified noise mitigation measures then considered and implemented. Mitigation measures are based on a hierarchy of treatments favouring at-source treatments where feasible and reasonable.

For construction noise, this would include engineering and management measures such as use of quieter equipment, alternative work methods, respite periods, scheduling works during less sensitive hours among other measures. For operational noise, these would include at-source mitigation measures such as quieter road pavements, rail track friction management, resilient rail baseplates, noise barriers (walls and/or mounds) and at-receiver treatments such as architectural treatments.

To protect valuable drinking water, it is important that our projects replace the use of potable water with non-potable water sources. Our major construction projects can be intensive in their water use for construction activities such as dust suppression.

These projects are required to meet targets related to the replacement of potable water through initiatives such as capturing rainwater in tanks and sediment basins onsite, where feasible. During operations, projects assess the feasibility of initiatives such as installing water treatment plants.

We are integrating our systems, processes and guidelines and adopting what is working across the organisation. This process will help to improve our management systems and streamline data capture and reporting. We are focused on aligning environment and sustainability data performance criteria and the frequency of reporting during 2021-22. We are working towards a consistent, single source of documents and tools across environment and sustainability.

We will continue our investment and partnerships in research and trials of recycled materials used in asphalt and concrete on road and rail projects. Our Technical Services team has trialled the use of asphalt and concrete containing recycled crushed glass (RCG) and has adopted it in many of our discrete technical specifications. We are recycling our concrete pavement and are actively researching the emerging area of waste plastics usage in asphalt through Austroads.

Our marketing team is rolling out recycling campaigns across stations. The Sydney Trains Innovation Team, in partnership with the Transport Access Program (TAP), is implementing innovative behaviour change trials, such as Smart Bin technology, that features artificial intelligence to improve recycling rates at stations.

Improve environmental outcomes

Our achievements



Parramatta Light Rail

The [Parramatta Light Rail](#) project is predicted to achieve a 36 per cent reduction in embodied carbon emissions in materials use through construction and operations. These reductions have been achieved by designing a catenary wire-free system, the use of supplementary cementitious materials (SCM) and macro synthetic fibres (MSF) in concrete, reclaimed asphalt pavement (RAP) in asphalt and re-use of existing rail, sleepers and ballast across the alignment.

An Australian First innovation was awarded by the Infrastructure Sustainability Council (IS Council) for the use of a light rail boot within the trackform, designed by Trelleborg for 51R1 rail. The light rail boot helps the project meet the very high noise and vibration attenuation requirements. The project was also awarded an IS Council State First innovation as the first light rail system within NSW to use Macro Synthetic Fibres (MSF) within concrete for the trackform. The use of MSF reduces the quantity of steel reinforcement required and increases concrete durability and performance, reducing the risk of stray current and making for a faster and simpler installation.

The Northern Road project

As the Northern Road Upgrade project progressed through stages five and six in 2019 and into early 2020, it experienced drought-like conditions, level 3 water restrictions and bushfire smoke from the Black Summer bushfires. It also faced growing community pressure to justify use of high-quality drinking water supplies for construction purposes. To future-proof the project and protect valuable potable water sources, sediment basins were over-excavated by approximately 20 per cent. This created rainfall storage which could be used instead of potable water.

The area experienced torrential rainfall in early 2020, with an extreme 540 milliliters of rain falling onsite over two months. The basins largely held up well and, as a result, there are now 24 active basins providing the project up to 14,375 kilolitres of capacity. These are equivalent to almost six Olympic-sized swimming pools, projected to provide up to 80 per cent of the project's non-potable water.

The project is preventing the use of virgin material by actively utilising onsite materials. It incorporates it into the pavement works and has imported 426,800 tonnes of excess fill material from the WestConnex M4-M5 link, Rozelle Interchange and surrounding projects.



Right Rubbish, Right Bin

The Sydney Trains Innovation Team and Transport Access Program teamed up to trial the 'Right Rubbish, Right Bin' initiative. The project is testing smart bin technology using artificial intelligence and customer interactions with existing bins. It works by identifying waste in a customer's hand and providing instruction on which bin to use, reducing contamination in recycling bins.

The smart bin provides data to cleaning staff on fill levels in the bin, helping to schedule bin servicing and cleaning times. The technology was tested at the Petersham training facility and is being trialled at Redfern Station, with additional bins to be installed at Pymble and Wolli Creek Stations and the new Transport building at Central Station. The trial is set to reduce contamination levels to less than 10 per cent, meaning improved recycling rates at the stations.

Rozelle Interchange (WestConnex)

The Rozelle Interchange project has installed a dust management system at the Iron Cove Link site that can be remote controlled from any smart device. The technology, produced by Orbit, allows the user to program and automatically control the B-hyve sprinkler system remotely. It provides smart watering, access to difficult areas, real-time updates and calendar scheduling.

It eliminates the need for additional water carts and results in better application and a faster reaction time to changing conditions. The technology is reducing a number of environmental impacts including greenhouse gas emissions, water consumption and noise for nearby residents. It also has safety benefits as there is less interaction between people and heavy equipment and reduced operator fatigue.



WestConnex

In a world first, the WestConnex M8 project has worked with suppliers Paradigm Flow Services and Efttech International to utilise Dry-Flo® technology for testing the fire deluge system. Dry-Flo® testing allows the in-tunnel water deluge system to be tested using low-pressure air, instead of high-pressure water. The team tested 678 deluge zones, with more than 10,000 sprinkler nozzles, across 18 kilometres of the project. This has saved 11 million litres of potable water.

Rozelle Interchange and Western Harbour Tunnel Enabling Works Project is the final stage of the WestConnex road tunnelling program. The 4.5-year construction program is expected to use more than 500,000 cubic metres of concrete, 70,000 tonnes of steel, 250,000 tonnes of aggregate and generate more than seven million tonnes of spoil. The project has implemented a number of more sustainable products as alternatives, including: reducing Ordinary Portland Cement (OPC) in certain concrete applications, using recycled crushed glass sand as an alternative to virgin sand and replacing traditional reinforcing steel in certain concrete applications with recycled plastic fibres. Research and development into these alternatives will influence the creation of a steady alternative supply for pavements, bedding and filling applications in NSW infrastructure projects.

Using recycled glass in Pacific Highway pavement

The Wells Crossing to Glenugie Pacific Highway project has replaced 15 per cent of the sand in the concrete lean mix for pavements with recycled crushed glass. One hundred per cent of the lower layer of concrete pavement was replaced, with approximately 2000 tonnes of recycled crushed glass used.

The recycled glass has been sourced from Lismore and will be used to cover two lanes along almost 10 kilometres of the Pacific Highway project. The trial has been developed in collaboration with EPA, ACCIONA (formerly Lendlease Engineering), and Transport for NSW, and will assist in determining the value and viability of these products and supply chains in the construction industry.



Recycled bottles paving the way for Albion Park Rail bypass roads

The Albion Park Rail bypass was opened to all four lanes in October 2021. The \$630 million project bypasses 16 intersections greatly reducing travel times. Road users now drive over the equivalent of 30 million glass bottles that have been recycled into crushed glass to replace sand in the asphalt process along the 9.8 kilometre-bypass upgrade.

All asphalt products used in road construction are mixed with sand, typically containing up to 2.5 per cent of recycled glass sand. The base asphalt layer used on the Albion Park Rail bypass is made up of 25 per cent recycled material, including 10 per cent recycled crushed glass and 15 per cent reclaimed asphalt pavement.

The project is one of the first to use this sustainability initiative on a large-scale, making it a significant sustainability achievement in NSW.

Recycled crushed glass aggregate

Recycled crushed glass has been utilised for the Sydney Metro Trains Facility expansion. Linewide contractor Systems Connect has substituted imported sand with the crushed glass for its bedding and overlay material in the installation of new drainage and intertrack drainage.

Approximately 1000 tonnes of the recycled glass was sourced from a NSW-based waste provider after being tested for compliance with environmental and technical requirements. Turning waste into a resource replaced the need to import virgin bedding sand, avoiding the impacts associated with extraction and transport of natural resources. It also brought cost savings to the project.



TufDuct ground level troughing

Construction of the Sydney Metro City and Southwest line requires the installation of Ground Level Troughing (GLT) to house services that run along the alignment. As GLT typically consists of concrete, a carbon intensive and heavy product that requires manual handling, TufDuct has been installed on the ground at Sydenham Station to achieve social, environmental and economic benefits. TufDuct is a 100 per cent recycled plastic troughing and is considerably lighter than GLT. It is also more durable and secure than concrete GLT lids, which can crack and damage cables causing additional maintenance, with TufDuct able to tolerate loads of 500 kilograms without sustaining any structural damage. The reduced weight of TufDuct also significantly reduces manual handling and plant required to handle heavy materials. It has a lower carbon footprint and is easily recyclable at the end of its life.

With a design life of 50 years, TufDuct is approximately half the cost of concrete GLT and significant time savings have been achieved through its implementation. During one installation, TufDuct was placed in roughly half the time taken to install concrete GLT.

Sydney Road Asset Performance contracts

Transport's Sydney Road Asset Performance Contracts (SRAP) have been established across the three Greater Sydney Zones (Harbour, River and Parkland). The SRAP contracts align with the United Nations Sustainable Development Goals and are focused on delivering sustainability outcomes. These outcomes will be measured over the life of the contracts through the attainment of an Infrastructure Sustainability Council Operational Rating.

Improve environmental outcomes

Performance data



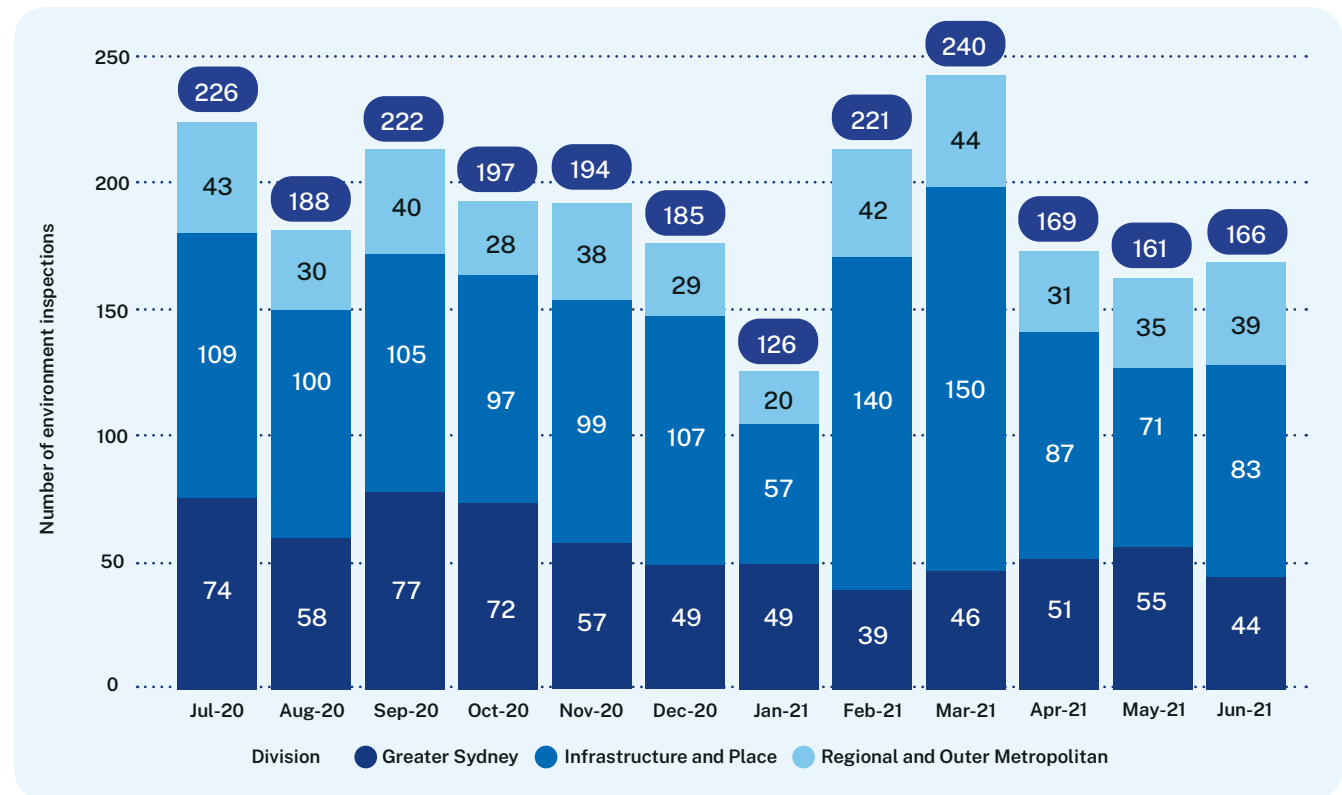
Environmental inspections

Transport undertakes environmental inspections on construction and maintenance sites, as well as on operational premises. This provides a lead indicator for the early identification of environmental risks, and assists with the prevention of environmental incidents and breaches of environmental requirements.

The inspections help us gather information on the environmental performance of our teams and our contractors, with the data analysed and used to assist with ongoing environmental performance improvement.

Environmental Inspections Data FY2020-21

Total inspections: 2295





Measuring sustainability performance

The key mechanism for embedding sustainability and performance across our projects is through the application of [Transport's Sustainable Design Guidelines \(SDGs\)](#) and the Infrastructure Sustainability Council (IS Council) Infrastructure Sustainability (IS) Rating Scheme. The IS Council Rating Scheme provides external, third-party validation to benchmark sustainability performance across the design, construction and operation phases of infrastructure assets in Australia and New Zealand.

The Scheme provides Transport with a structure to drive sustainability performance across the environmental, social, economic and governance aspects of our assets. It enables us to report asset performance in a common language and provides a mechanism for consistent application across all modes of transport.

[The Green Building Council of Australia's](#) (GBCA) Green Star rating scheme is used to provide third-party validation of sustainable design and construction for underground stations on the Sydney Metro City and Southwest project.

Transport currently has 84 projects registered and in progress across the different IS Ratings types – Program, Design, As Built and Operations. Six of these projects are yet to have their rating pathway determined and are in progress.

IS Rating Type

| Project/program | Program | Design | As Built | Operations |
|---|---------------------------|-----------|-----------|------------|
| Albion Park Rail Bypass | - | - | 1 | - |
| Beaches Link | IS Rating pathway pending | | | |
| CBD and SE Light Rail | - | 1 | 1 | 1 |
| Coffs Harbour Bypass | IS Rating pathway pending | | | |
| Commuter Car Parks Program | - | 1 | 1 | - |
| M6 | IS Rating pathway pending | | | |
| M12 Motorway - Central | - | 1 | 1 | - |
| M12 Motorway - West | - | 1 | 1 | - |
| M12 Motorway - East (Elizabeth Drive Connections) | - | 1 | 1 | - |
| M12 Motorway Program Rating | - | 1 | 1 | - |
| More Trains More Services (MTMS) - Stage 2 | - | 2 | 2 | - |
| More Trains More Services (MTMS) - Stage 3A | IS Rating pathway pending | | | |
| Newcastle Inner City Bypass: Rankin Park to Jesmond | - | - | 1 | - |
| New Intercity Fleet | - | 1 | 1 | 1 |
| Northern Road Upgrade - Stage 4 | - | - | 1 | - |
| Northern Road Upgrade - Stage 5 | - | - | 1 | - |
| Northern Road Upgrade - Stage 6 | - | - | 1 | - |
| Parramatta Light Rail (PLR) | 1 | 2 | 3 | 1 |
| Regional Rail Program | - | 1 | 1 | 1 |
| Sydney Gateway | - | 1 | 1 | - |
| Sydney Metro City & South West | 1 | 5 | 5 | - |
| Sydney Roads Asset Performance | | - | - | 3 |
| Transport Access Program (TAP) 3 | 1 | 14 | 14 | - |
| Warringah Freeway Upgrade | IS Rating pathway pending | | | |
| WestConnex Stage 3A - M4-M5 Link | - | 1 | 1 | - |
| WestConnex Stage 3B | - | 1 | 1 | - |
| Western Harbour Tunnel | IS Rating pathway pending | | | |
| Registered: 84 | 3 | 34 | 40 | 7 |
| Pathway pending: 6 | | | | |

Transport's Infrastructure Sustainability Council (ISC) registered, in progress and future projects.
Based on available data sourced from ISC

Improve environmental outcomes

Performance data



Waste

The construction and maintenance of roads involves the management of millions of tonnes of excavated spoil, road building materials and wastes. The table below shows that through our resource management activities, Transport is already achieving the NSW Government's targeted recycling rates of 80 per cent waste diverted from landfill in our regional road maintenance. We beneficially reuse and recycle more than 95 per cent of materials such as concrete, asphalt, virgin excavated natural materials (VENM) and excavated public road materials (EPRM) generated during road construction, maintenance or demolition.

| Material | Landfilled (tonnes) | Reused (tonnes) | Total (tonnes) | % Recovered |
|------------------|---------------------|-------------------|-------------------|-------------|
| VENM | 5086.55 | 231,128.88 | 236,215.43 | 98% |
| Asphalt | 487.60 | 67,079.57 | 67,567.17 | 99% |
| EPRM | 496.92 | 36,136.03 | 36,632.95 | 99% |
| Concrete | 1605.60 | 12,357.83 | 13,963.43 | 89% |
| Vegetation/Mulch | 1290.20 | 4125.86 | 5416.06 | 76% |
| Total | 8966.87 | 350,828.17 | 359,795.03 | 98% |

Regional Maintenance Division Waste Data FY21

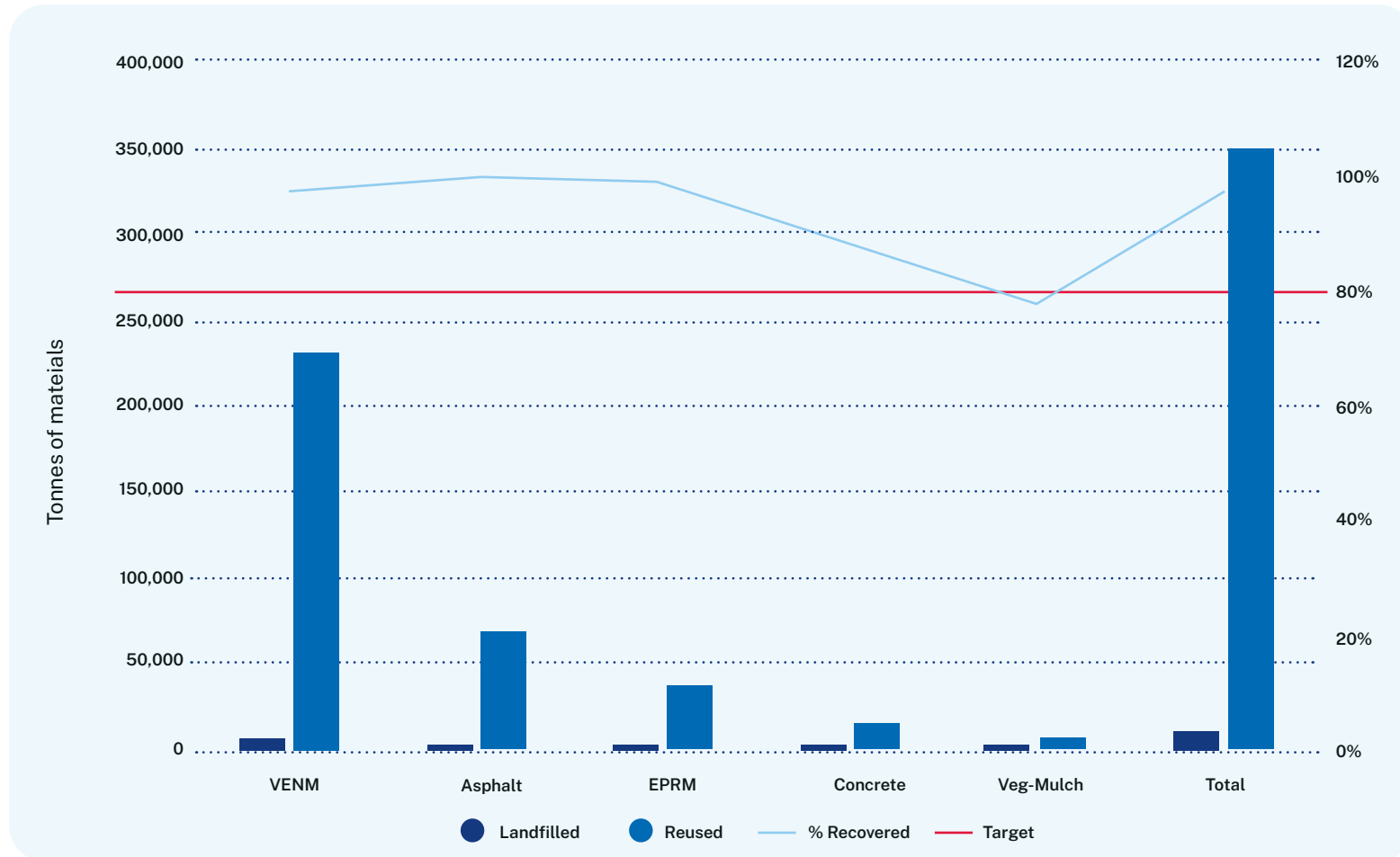
*Sydney Metro data not included

Improve environmental outcomes

Performance data



Regional maintenance and delivery waste data FY2020-21



Procure
responsibly



Procure responsibly

Why it is important



Procurement is one of the most powerful levers government has in achieving sustainable outcomes. The magnitude of procurement spend and the ability to set procurement requirements on goods and services means there is an opportunity to influence both supplier's activities and the market.

Government has an opportunity to deliver economic, social and environmental benefits through its selection of goods and services, in addition to its objectives of ensuring price, quality, timeliness and being fit-for-purpose.

Encouraging innovation in the supply chain provides a catalyst for suppliers to improve the performance of products and services which, in turn, means they have marketable and cutting-edge products or services for the wider business community.

Transport spends billions of dollars each year across its vast network of operations and projects. By setting supplier and procurement standards and targets as part of the procurement and contract management lifecycle, we are working to increase the sustainability of the supply chain and achieve value for money across the life of an asset to generate benefits for Transport, the community, the economy and the environment. Having a procurement process that allows effective engagement with suppliers and the identification of social risks is also critical for addressing the complex issue of modern slavery.

Workforce procurement is an important driver for the NSW Government to achieve economic growth and improve economic and social outcomes of the communities it operates in. Transport sets supply chain targets for workforce based on skills shortages and participation to support local and regional economies. These include participation targets for disadvantaged and diverse communities and businesses, small to medium enterprises (SMEs), engaging young people via education and work experience, supporting vocational career development through apprenticeships and traineeships and delivering sustainable social and environmental outcomes.

Transport is aiming to exceed the targets outlined in the [Aboriginal Procurement Policy \(APP\)](#), which contributes to the NSW Government's strategic economic policy of [Growing NSW's First Economy](#). The APP values the cultural, social and economic contributions of the Aboriginal community and is also driving a core outcome of the [Transport Reconciliation Action Plan](#) which aims to generate opportunities for employment and career development. Transport also implements strategies for improving workforce skills and capabilities, which enables targeted and transferable skills development in areas with local and national skills shortages.



Goals

- All suppliers meet the standards in the Transport Supplier Sustainability Charter
- Social and environmental outcomes included in all procurement decisions
- Go beyond minimum compliance targets in Aboriginal Procurement Policy



Overview

Transport is committed to using its purchasing power to deliver economic, social and environmental benefits. We are working to procure and deliver sustainable, efficient and cost-effective transport options, including responsible supply chains.

Our investment is focused on infrastructure that provides opportunities for employment, business growth, and delivers a skills legacy for disadvantaged and diverse communities in NSW. We procure goods and services from local and international supply chains and need to manage the risk of any contracts that potentially hold human rights, modern slavery, environmental or other social risks.

Our challenges

Our supply chains are multi-tiered and fragmented, with our direct contractors often engaging multiple subcontractors. This presents complexities in both the 'flow down' of contractual obligations, and in data collection and reporting.

Where these subcontractors are performing well, it can be challenging to measure direct spend and impact due to project specific processes for data collection and reporting. Transport uses tonnes of materials in our projects, including cement and steel, which are large emitters of greenhouse gases.

Transport is working with our suppliers to encourage a shift in the market to low carbon and sustainable materials.

Our contract requirements include social procurement criteria through mandated targets. These requirements drive employment of disadvantaged people and engagement of businesses, SMEs, Aboriginal-owned, regional and disability enterprises.

Availability and capability of these businesses can be limited in some locations, particularly where there is a large pipeline of work and a high demand for skilled workers. Across NSW there are unprecedented [skills shortages](#) in infrastructure and construction occupations, exacerbated by limited inward migration of skilled labour, due to COVID-19. Further, there are constraints for disadvantaged groups accessing opportunities, with gaining practical work experience often a key barrier for new entrants. COVID-19 is also presenting challenges to the delivery of training to support workforce skills development. Conversely, COVID-19 is also presenting opportunities to re-skill, or upskill, workers from other industries to help bridge skills gaps and reduce labour shortages.

Procure responsibly

Our approach



Our [Environment and Sustainability Policy 2020](#) commits to contributing to economic prosperity and social inclusion in an environmentally responsible and sustainable manner, including a commitment to sustainable procurement. Our [Procurement Policy](#) is our commitment to supporting economic participation, through diversifying our supplier base to include minority supplier groups. We assess the benefits and risks of investments and commit to spending public money efficiently.

Our decisions consider economic and ethical aspects to deliver value for money and social outcomes through the purchase of goods and services. Our Procurement Standard aligns with the guiding principles of the Procurement Policy and the [NSW Procurement Policy Framework](#), setting out the standards for the procurement of goods and services and must be implemented in conjunction with the Transport Delegations.

We mandate supplier contract requirements to improve employment and workforce skills development opportunities for underrepresented groups to drive long-term socioeconomic benefits, in line with NSW Government policies and regulations. We develop strategies, initiatives and requirements for social procurement and workforce development based on the location, including demographics and the local industry context. Workforce skills development builds transferable skills in areas with local and national skills shortages.

Transport provides access to multiple [resource guides](#) that support contractors to achieve these commitments. For purchases up to \$250,000, Transport gives first consideration, where feasible, to suitably qualified and registered Aboriginal businesses, contracts over \$250,000 and less than \$7.5 million aim to contract with suitably qualified Aboriginal businesses, where practicable and contracts above \$7.5 million must include minimum requirements for 1.5 per cent Aboriginal participation.

The Aboriginal Procurement policy also requires Transport to direct one per cent of total addressable spend and three per cent of goods and services contracts toward Aboriginal businesses.

We are addressing the complex societal issue of modern slavery and human rights within our supply chain. Our procurement process is being adapted to engage effectively with suppliers and identify any social risks.

Procure responsibly

Our achievements



Parramatta Light Rail

[Parramatta Light Rail's](#) contractor, Parramatta Connect, conducted a waste audit that identified paper towels, soft plastics, and takeaway coffee cups as challenging office waste streams to divert from landfill. The project engaged Mates on the Move (MotM), a social enterprise that provides education and work experience for people leaving prison in NSW. MotM sorts and transports the waste to a resource recovery facility centre, where they are converted into Processed Engineered Fuel (PEF). The project has saved monthly landfill costs, increased office waste diversion rates from 50 to 80 per cent, and provided training for numerous people, two of whom provide waste management services on the project.

M8 Motorway receives NSW Premier's Award

The M8 Motorway is the second major piece of the WestConnex Motorway network. The \$4.3 billion project received the 2020 NSW Premier's Award for 'Strong Economy', recognising the project's contribution to job and skills creation in the NSW economy. The project employed more than 18,000 people, trained more than 500 young professionals through its training academy and awarded 80 per cent of its contracts to NSW companies.

More Trains, More Services Stage 2 South Works Package

The More Trains, More Services Stage 2 South Works Package (MTMS 2) is committed to the NSW Infrastructure Skills Legacy Program to provide experience for local workers and suppliers on large infrastructure projects. The \$250 million project joined the [Supply Chain Sustainability School](#), providing suppliers access to the school's e-learning modules. The training helps businesses to grow workforce skills, make more sustainable and cost-effective decisions, and become more competitive.

Northern Road Upgrade Stage 2 and Stage 3

[Stage 2 of the Northern Road Upgrade](#) has spent \$14.8 million on Aboriginal businesses in accordance with the Aboriginal Participation in Construction (APiC) policy. The project achieved an APiC expenditure of 2.5 times its targeted spend of \$5.95 million, ensuring a boost to jobs and opportunities for Aboriginal businesses throughout the Western Sydney area. The Northern Road Upgrade Stage 3 Alliance also more than doubled its targeted spend and achieved 4.2 per cent expenditure on APiC.



NSW Government Legal Services Panel

Transport Shared Services delivered a new NSW Government Legal Services Panel, a whole-of-government panel, in 2021. It combines the purchasing power of NSW Government Agencies to secure more competitive outcomes for legal services. The Panel contract includes supplier obligations to provide Aboriginal employment, education, community and economic opportunities. Outcomes from the panel have included \$61 million in savings from \$1.2 billion spend and provision of support towards the Government's Social Procurement Policies.

Batemans Bay Bridge replacement project

The \$274 million [Batemans Bay Bridge replacement project](#) has built better connections in and around Batemans Bay for motorists, freight, river users, pedestrians and cyclists. Under the NSW Aboriginal Procurement Policy, the project also supported Aboriginal participation in construction, with more than 9.6 per cent of all hours worked performed by employees or sub-contractors identifying as Aboriginal people.

Major work started in early 2019 and the new bridge opening to two lanes March 2021 and to all four lanes in September 2021. Removal of the existing bridge should be completed by the end of 2021. Improvements to the foreshore are continuing, with project completion planned in early 2023. To date, more than \$3.5 million in expenditure relates to Aboriginal participation in construction, including spend on education, training and goods or services purchased from Aboriginal businesses.

In addition, Transport implemented the Infrastructure Skills and Legacy Program in collaboration with contractor John Holland Group and the Batemans Bay Local Aboriginal Lands Council (LALC). This helped to create a successful mentoring program for Aboriginal trainees on the project. The mentoring program was conducted by community Elders to ensure trainees on the project were supported throughout the structured learning phase and transitioned well into working in the construction industry. This important support contributed towards long-term retention of trainees on the project.



Regional Rail Project

Transport established an Aboriginal Working Group (AWG) on the [Regional Rail Project](#) to provide advice and support. The AWG has supported pathways for Aboriginal businesses and people into the project, including provision of tender writing workshops, a school-based traineeship program and a pre-employment program with Aboriginal participants. Eighteen Aboriginal businesses have been engaged on the project to date and the project is exceeding a number of its Aboriginal participation requirements.

As at June 2021, 57 per cent of the project's apprentices are Aboriginal, against a 10 per cent requirement, with 19 per cent of level 1 supervisor and above positions held by Aboriginal people, against a five per cent requirement. Five major packages for the Regional Rail Mindyarra Maintenance Centre have been awarded to an Aboriginal business and electrician and trade assistant roles have been recruited locally.



Procure responsibly

Performance data



In January 2021, the Aboriginal Procurement Policy for goods and services and the Aboriginal Participation in Construction Policy APIC merged into a new [Aboriginal Procurement Policy \(APP\)](#), covering both goods and services and construction.

Transport values the economic, social and cultural contribution of the Aboriginal and Torres Strait Islander peoples of NSW. Our procurement spend on goods, services and construction provides a significant opportunity to support employment opportunities and sustainable growth of Aboriginal businesses.

Under the new APP, procurement targets were implemented from January 2021. These included directing one per cent of the total addressable spend – where there are opportunities for agencies to engage Aboriginal businesses, but not including spend such as large construction contracts – as well as three per cent of total goods and services contracts to Aboriginal businesses. In the six months to June 2021, Transport achieved expenditure of \$19.5 million with Aboriginal business against our addressable spend target of \$23.3 million. Transport also established 48 goods and services contracts with Aboriginal businesses, exceeding our engagement target of 36 businesses for this period. While we did not meet our addressable spend target during this period, Transport’s annual Aboriginal Participation Strategy is being developed to address these shortfalls.

As part of the APP, we must include minimum requirements for 1.5 per cent Aboriginal participation in all contracts valued at \$7.5 million or above by requiring one, or a combination, of the following:

- At least 1.5 per cent of the contract value to be subcontracted to Aboriginal businesses
- At least 1.5 per cent of the contract’s Australian based workforce (full time equivalent) that directly contribute to the contract to be Aboriginal or Torres Strait Islander peoples
- At least 1.5 per cent of the contract value to be applied to the cost of education, training or capability building for Aboriginal staff or businesses directly contributing to the contract.

2020-21 Aboriginal participation spend

The total value of Transport contracts in 2020-21 was \$10,622,488,736. The table below indicates the Aboriginal participation spend within the contracts that were underway during the financial year. Many contracts are still in progress, including some that were only awarded late in 2020-21. The APP target of achieving a minimum of 1.5 per cent Aboriginal participation in all contracts valued at \$7.5 million or above relates to the total expenditure on Aboriginal participation at the completion of each contract. Therefore, for contracts that are still in progress, it is expected that the current APP expenditure will be less than the APP target. Historically, only a small proportion of contracts have failed to reach their APP target and, in many cases, the target amounts have been far exceeded.

| Spend category | \$ Actual | % Actual spend |
|------------------------------------|---------------|----------------|
| Aboriginal participation total | \$138,065,484 | 1.30% |
| Aboriginal employment | \$78,240,526 | 0.74% |
| Aboriginal owned businesses | \$46,724,694 | 0.44% |
| Engagement, education and training | \$9,847,362 | 0.09% |

Aboriginal Procurement Policy Data FY21

Partner with
communities





Partner with communities

Why it is important

Working with communities helps us meet their needs and develop and manage public spaces in a way that preserves and enhances their character and considers factors like comfort, safety, attractiveness and accessibility.

Communities need access to affordable and reliable transport in order to thrive. Equally, the future of transport will be determined by how communities function and their emerging needs.

By creating connected places and communities, Transport is able to enhance social inclusion and local economic development, while providing significant cultural and environmental benefits.

To achieve this, Transport is committed to providing meaningful community consultation and co-operative design to support the needs of the community. The result is integrated, place-based design and investment that creates vibrant, strong and socially-connected communities with improved quality of life, health, and economic and social wellbeing.

This approach also improves local amenities and liveability and promotes sustainable transport – including public transport, walking and cycling. Working with communities helps us meet their needs and develop and manage public spaces in a way that preserves and enhances their character and considers factors like comfort, safety, attractiveness and accessibility. Ultimately, Transport is working to ensure the communities it is operating within align on objectives and to create a more sustainable NSW.

Our NSW communities are incredibly diverse, as are the needs of people within them. At the end of 2020, there were more than eight million people living in the State – with the population projected to increase to between 11 million and 15.6 million by 2066 and most growth projected to occur in Greater Sydney. For almost 40 years, the majority of this population growth has come from overseas migration. It is important to consider the vulnerabilities specific groups might encounter when planning or running Transport projects.



Goals

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



Overview

Our positive contribution to society, the environment and the economy is fundamental to our social licence to operate.

Through authentic engagement with stakeholders during planning, design and construction, we improve outcomes and create a positive legacy for the diverse communities in which we work. We recognise the economic opportunities that our projects provide for improving local skills and employment opportunities and business growth. Our engagement approach is designed to deliver results that meet stakeholders' needs and ensure that decisions are informed by the people who use, or are affected by, our transport network.

Our challenges

Throughout the COVID-19 pandemic, face-to-face engagement with our stakeholders was challenging due to restrictions. We have adapted the way we engage to improve accessibility by increasing online engagement activities. We will continue to deliver different methods to ensure inclusive community engagement is achieved, including trialling digital environmental assessment documentation (Reviews of Environmental Factors). With the large volume of construction projects across NSW, we know that stakeholders can suffer from consultation fatigue and potentially disengage. We seek continuous feedback from stakeholders, but consistent and centralised reporting on outcomes remains challenging, as reporting and data management is often undertaken at a project level.

Creating connected places and communities to deliver social, economic, cultural and environment benefits is key to the future of NSW. However, our projects often have unavoidable impacts on the community. Transport is committed to and focused on reducing these impacts, including minimising waste, energy and water use, noise, vibration and air quality, to reduce disruption to both the community and environment.

Partner with communities

Our approach



Transport seeks to work with communities at every stage of each project's lifecycle.

Our [Stakeholder and Community Engagement Policy](#) drives a consistent approach to stakeholder engagement for all projects, ensuring consideration of the needs of our diverse communities.

We utilise the principles of the International Association for Public Participation (IAP2) engagement spectrum. Our strategy, Future Transport 2056, outlines our approach to planning, where we closely involve, listen to and collaborate with, our stakeholders.

We work with local stakeholders to anticipate and avoid possible negative consequences of our activities including land acquisition, noise or access to transport. During the development, design and approval phases of our major projects, concept designs are placed on public exhibition to seek community feedback, with issues addressed during project planning and responses communicated publicly. Through the design phase, we invite stakeholder feedback to inform final design.

During construction, we involve communities in key decisions through public meetings and community workshops, now accessible online. Stakeholders are informed of upcoming activities through media announcements, letterbox drops, community notifications, newsletters and site open days. Transport uses Customer Relationship Management systems, such as Consultation Manager, Salesforce, Social Pinpoint and Bang the Table, to manage, analyse and report on interactions with stakeholders.

Additionally, we need to consider issues facing communities such as urbanisation and ageing populations. We have created a range of plans in partnership with the community, including the [Disability Inclusion Action Plan](#), [Older Person's Transport and Mobility Plan](#), [Transport Access Program](#) and [Social Access Plan](#), to ensure our transport network is responsive to different needs and provides access for all.

For Aboriginal stakeholders, Transport employs a specialist engagement team to consult and collaborate to protect and enhance Aboriginal cultural and heritage values. [Our Reconciliation Action Plan \(RAP\) 2019-2021](#) is our roadmap to drive our contribution to reconciliation, both internally and in the communities in which we operate.

Partner with communities

Our achievements



Transport Access Program 3 (TAP3)

[Fairy Meadow Station](#), as part of the TAP3 program, Transport engaged the community to create a public art display on the rail bridge pillars. Artist Poncho Army has painted two murals based on the creative ideas of two local primary schools. The Fairy Wren artwork celebrates the abundance of Fairy Wrens at Puckey's Estate nature reserve and the Cabbage Tree Palm artwork recognises the significance of the native Cabbage Tree Palm to the Fairy Meadow community.

Lapstone Station has retained the historic station garden, as requested by the community during the planning process. Community members were involved in landscaping options and redesign of the station ramp.

Rozelle Interchange (WestConnex)

The WestConnex Transurban Community Grants Program offers grants of up to \$10,000 to support and deliver positive and lasting outcomes for communities.

Tempe Public School is just one school that has taken advantage of the grant to educate students about sustainability, install an irrigation water tank and repair the irrigation system. The new water tank has the capacity to irrigate the school oval and outer school gardens, which was particularly important during Sydney's water restrictions.

M12 Motorway

The [M12 Motorway](#) project undertook community consultation during its planning phase, leading to design changes with the addition of two new connections to the road network. The changes provide greater connectivity, improved access and a toll-free option for drivers accessing the Western Sydney International Airport. The project has worked with Balarinji Indigenous Design Studio to design indigenous artworks throughout the M12's motorway and pedestrian corridors.

The installations will feature the six seasons in the Nyoongar year, and form part of the project's Urban Design and Landscape Plan. During construction (2022-2026), the project will support more than 2000 direct and indirect jobs.



Nowra Bridge project – Princes Highway upgrade

The [Nowra Bridge project](#) included a second successful pre-employment program as part of the Infrastructure Skills Legacy Program with a focus on providing job ready candidates for other local businesses as part of the project's strategy to leave a legacy broader than the project. The program was developed with local industries to upskill people in the Shoalhaven area and support local business growth and job seeking skills. The six-week program provides candidates with skills in basic tool use, safety and communication. The first pre-employment program in 2020 had 11 local Aboriginal graduates, with five now working on the project and completing a civil construction traineeship and the remainder having opportunities with local with companies in the region.

Digital Review of Environmental Factors (REF)

Transport trialled a new online platform to present digital Review of Environmental Factors (REF) to the public. The digital REFs improve the experience for the community in accessing information provided in REFs. The digital REF use features such as interactive maps, imagery, audio visual and other clickable content. [Killara Station upgrade](#) and [Mamre Road upgrade](#) digital REFs are now available and able to be explored.

Respect
culture and
heritage



Respect culture and heritage

Why it is important



It is vital we not only manage risk to preserve our nation's ancient and more recent history, but look for opportunities to celebrate it and integrate knowledge, culture and stories into our network and projects.

Aboriginal employees and the broader Aboriginal communities we work with make a profound contribution to Transport, sustainability and our communities more broadly.

Transport's [Reconciliation Action Plan \(RAP\)](#) has been a central component in its strategy to improve its diversity and cultural understanding and outcomes.

According to the [2016 census](#), a third of Australia's Aboriginal and Torres Strait Islander population – approximately 265,685 people – live in NSW. Transport is working closely with community and our Aboriginal employees to ensure the preservation of culture throughout works and projects across our network. Our Aboriginal engagement team effectively listens to, consults and works with our Aboriginal stakeholders and landholders to reach beneficial agreements for all. We also actively look for opportunities to integrate the deep knowledge, stories and best practice examples from our Aboriginal and Torres Strait Islander peoples as we strive to improve the sustainability of our operations.

Transport owns and works in proximity to a range of heritage places and objects such as buildings, land and water-based archaeological relics, historic pieces of infrastructure like bridges or wharves, entire streetscapes or towns, cultural plantings, natural elements and memorials. We undertake environmental impact assessments and investigate opportunities for heritage interpretation to ensure our state's heritage is carefully and sustainably managed for generations to come. It is vital we not only manage risk to preserve our nation's ancient and more recent history, but look for opportunities to celebrate it and integrate knowledge, culture and stories into our network and projects.



Goals

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



Overview

Australia's heritage reflects the rich diversity of culture, history and experiences in our communities. Our transport network follows the traditional songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Aboriginal heritage specifically relates to the tangible (such as objects and places) and the intangible (such as dreaming stories, songs, cultural practices and traditions) associated with past and present-day Aboriginal communities. These objects, places and intangible elements of culture can be spread over large or small landscapes, often referred to as cultural landscapes. Non-Aboriginal Artefacts and places of heritage from more recent Australian history are also found within our transport network.

The communities in which we work choose to value some places over others, and it is these places, objects and cultural values that we must protect and conserve for future generations. The methodology aligns with Infrastructure NSW (iNSW) Gateway Reviews – independent expert reviews conducted on project development and delivery.

Our challenges

Transport has accountability for heritage as an owner of heritage assets requiring protection and conservation, a developer whose activities have direct and indirect impacts on heritage (tangible and intangible), and a consent authority for development that may impact heritage.

The breadth of our transport network spans every corner of NSW, therefore the potential impact on heritage places and objects across the lifecycle of our projects is substantial. The number of construction projects and operational assets makes it challenging for us to ensure a coordinated and collaborative approach to heritage protection, conservation, and cultural learning and reconciliation.

Respect culture and heritage

Our approach



Transport acknowledges and pays respect to Aboriginal and Torres Strait Islander peoples as custodians of the lands where we work.

We employ a dedicated Aboriginal Engagement team that works across Transport. We conduct all culture and heritage engagement and consultation using our [Procedure for Aboriginal Cultural Heritage Consultation and Investigation](#), a framework that helps us understand potential impacts.

Transport manages cultural heritage in accordance with NSW and Federal legislation. Transport must keep a Heritage and Conservation Register under the [NSW Heritage Act 1977](#). This register is used to support the management of heritage assets.

Transport's [RAP](#) 2019-2021, managed and delivered by our People and Culture team, demonstrates our commitment to reconciliation and is framed around the themes of respect, relationships and opportunity. Our Aboriginal Cultural Education program develops a greater appreciation and understanding around Aboriginal and Torres Strait Islander cultures to improve working relationships with Aboriginal people.



[Transport has two Section 170 registers](#)
[Heritage and Conservation Register | Transport for NSW](#)
[Heritage register - Heritage - Environment & heritage - About us - Roads and Waterways - Transport for NSW](#)

Respect culture and heritage

Our achievements



Reconciliation Action Plan (RAP)

Transport's RAP has been developed to make a positive difference to Aboriginal and Torres Strait Islander peoples in three significant areas – respecting and celebrating culture, building and strengthening relationships, and creating opportunities for employment and career development. Our plan includes actions to drive employment, empowerment and economic development, and enhance and develop greater cultural understanding. Proud Yaegl woman Frances Belle Parker created our RAP artwork, 'Our Songlines are Calling', a painting which shows the strong importance of our Traditional songlines when travelling through Country.



Title: 'Our Songlines are Calling'

Artist: Frances Belle Parker (Yaegl)

Date: 2019

Medium: Acrylic on Linen

Newell Highway Upgrade – Mungle Back Creek to Boggabilla

The [Newell Highway Upgrade project](#) has established an Aboriginal Bushfood and Medicine Garden at Boggabilla. The initiative has been created to teach Boggabilla children about traditional Aboriginal culture and provide the locals with access to the traditional foods. Local school students made a Brolga metal sculpture for the garden. The project used 2.34 per cent of the project's total spend to positively contribute to Aboriginal employment, and economic opportunities, and develop greater cultural understanding.

Aboriginal Maritime Safety Plan

Aboriginal communities are connected to waterways through history and culture and continue to use them for daily transport options. In Australia, there were nine Aboriginal and Torres Strait Islander people who suffered boating-related fatalities from 2007 to 2017. In NSW, 90 people experienced serious boating-related injuries between 2005 and 2019. In November 2020, Transport launched the [Aboriginal Maritime Safety Plan 2020-2022](#) to reduce the likelihood and consequences of boating incidents involving Aboriginal people on NSW waterways. The plan involves collaborating with Aboriginal communities to co-design culturally-relevant boating safety programs and aims to increase Aboriginal participation in the maritime economy by supporting opportunities for career pathways.



Cultural values mapping

Within the Lower Hunter Freight Corridor, Transport has engaged an Aboriginal-owned business and a team of local Aboriginal people to undertake an Aboriginal cultural values assessment for the study area. The values assessment integrates the ethno-historic record with oral tradition. It uses artwork and digital materials to present findings and highlight adjustments required for corridor alignment options to avoid culturally-sensitive lands and assist in repatriating the knowledge collated back to community in a meaningful way. As part of the strategic planning for the Princes Highway Upgrade, Transport is engaging with Aboriginal communities from Nowra to the Victorian border to better identify and map areas of cultural sensitivity within the landscape and reduce future impacts.

Naming of New Intercity Fleet

The [New Intercity Fleet](#) trains will travel through areas of Darug country, extending from the Sydney CBD to the Blue Mountains and other Aboriginal countries, including Wiradjuri, Awabakal and Dharawal. In acknowledgement of the Darug Aboriginal culture, the trains are named Mariyung – the Darug word for emu. The Mariyung carriages will feature special artwork designed by local Darug woman and artist, Leanne Mulgo Watson.

Byron Bay Bus Interchange

As part of the [Byron Bay Bus Interchange](#) works, a dilapidated heritage-listed water tower, dating back to the late 1800s, was the only remaining structure within the former locomotive siding. The project team restored the water tower, celebrating the industrial heritage monument and integrating it into the urban design for the precinct. Conservation included rebuilding structurally-unstable sections of brick and replacing missing bricks with new hand-made bricks.



Thresholds exhibition

Sydney Trains was a major partner of contemporary art exhibition 'Thresholds' at Tin Sheds Gallery in early 2021. Thresholds received a Highly Commended Award at the 2021 National Trust Heritage Awards. The exhibition, a collaboration by artist Julia Davis and Lisa Jones and curated by Claire Taylor, was a poetic response to the abandoned heritage railway tunnels under Sydney's Hyde Park that are connected to St James Station. The exhibition spoke to heritage and place and included large-scale drawings, photographs and an immersive, multichannel video installation with stereo sound. Thresholds presented a number of artworks that can be considered creative engagement with heritage, telling the story of heritage-in-place through visually revealing some of the material histories of the site. In addition to the exhibition, there was also a public program of speakers from State Library of NSW, City of Sydney, Sydney Living Museums/Sydney Open, University of Sydney, University of New South Wales, Sydney Contemporary.

(Artists: Julia Davis and Lisa Jones. Project Partners: GREYSPACE – Curator Claire Taylor, Tin Sheds Gallery, The University of Sydney, Sydney Trains, The Copyright Agency's Cultural Fund, Create NSW)

Transport's moveable heritage

The Heritage team and the Workplace Design team collaborated on a heritage exhibition in the new Macquarie Park office foyer. The display features aerial photography equipment from the 1940s from Transport's moveable heritage collection and juxtaposes 1943 aerial photographs – the first taken 'from the skies' to aid Transport planning in NSW – with modern satellite imagery. The display shows the changing face of Macquarie Park over time and highlights Transport's focus on holistic Transport planning and utilising new technologies. The project means that part of our heritage collection can be seen, enjoyed and appreciated, and offers a way for staff and visitors to connect with both the place they're in and the ongoing legacy of their work.



Align spend
and impact



Align spend and impact

Why it is important



Our current projects are helping to shape our cities, centres and communities for generations to come.

In the midst of the global climate crisis and growing issues around pollution, waste, water, biodiversity and resource availability, sustainability has rightly become a central principle in infrastructure planning.

When deciding where and how to invest in our transport infrastructure, it is important that we obtain best value.

In some cases, projects may require a larger initial outlay of funds but will provide a more economically viable and sustainable solution long term. We know that what we do has a significant social and environmental impact, and that is why we are making decisions that look beyond the financial cost to ensure we are making the best overall decision for our state.

Our current projects are helping to shape our cities, centres and communities for generations to come. We're delivering the largest transport infrastructure program Australia has seen including \$13.4 billion of investment in infrastructure projects in 2020-21. It's in our interest, and the interest of our taxpayers, to maximise the value of Transport's investments through sustainable spending.



Goals

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



Overview

Transport considers how to enable the greatest positive social and environmental impact at each point in the decision-making process and throughout a project, from development, procurement, design, construction, operation, maintenance, refurbishment and recycling of assets.

To maximise value for money across the project lifecycle, we have embedded sustainability into the business case development for all Transport projects. Understanding the financial cost and environmental and social benefits of a project during its lifetime allows Transport to determine its impact and make sustainable decisions.

Our challenges

To achieve sustainability outcomes, a range of options need to be analysed. However, sustainability benefits can be difficult to demonstrate, especially when simple financial cost-benefit analysis is used. Transport uses Benefits Realisation Management (BRM) to identify and measure costs and benefits, as well as define the success and impacts of a project. Our fragmented data capture systems can make it difficult to obtain information on the sustainability benefits across a project's life. Additionally, current skills shortages within the Australian infrastructure sector makes it difficult to attract and retain the necessary people and skills to ensure sustainability is embedded into the asset life cycle.

Align spend and impact

Our approach



Strong, evidence-based decision making is key to the successful delivery of transport investments.

A business case is an important management tool that provides insight into the justification of potential investments. The [Transport Business Case Guide](#) requires business cases that inform evidence-based and outcomes-focused whole-of-life expenditure decisions that are in the public interest and demonstrate value for money. The business case must address the risks and opportunities across nine investment assurance review criteria areas, including sustainability. When addressing sustainability, it must consider nine environmental and sustainability criteria and include sustainability strategies, targets and initiatives for adoption. The business case process follows a whole-of-life approach and aligns to the Asset Management Framework, where sustainability opportunities are balanced with risk considerations across the asset lifecycle.

The Infrastructure NSW [Infrastructure Investor Assurance Framework](#) (IIAF) applies to Government projects with a value of \$10 million and above. The IIAF is the applicable Gateway Coordination Framework under the [NSW Gateway Policy](#), administered by NSW Treasury. Government agencies must provide evidence against seven key focus areas as part of an [independent gateway review](#), with focus area three being 'Social, Environmental and Economic Sustainability'. Transport's Strategic Business Case and Final Business Case include the Sustainability Strategic Management Plan (SSMP), developed to respond to questions from focus area three in the [Infrastructure NSW IIAF gateway workbook](#).

The SSMP is a business process that ensures sustainability is strategically embedded into the program or project.

Transport uses BRM to identify, quantify, document and track benefits and outcomes throughout the lifecycle. A BRM plan, register and benefits map is prepared by the project to ensure the proposed project delivers the forecasted benefits identified in the business case. A benefit register is kept to document identified performance measures, baselines and identification of owners or sponsors.

Transport recently conducted a corporate functions review and created two new functions, Contract and Commercial Management, and Category Management. They are responsible for managing Transport's contracts, managing supplier risk, developing category strategies and procurement pipeline planning. In October 2019, NSW Treasury published a new Asset Management Policy for the NSW Public Sector. A key requirement of this policy is the preparation of Strategic Asset Management Plans for each agency. The Transport Asset Management Framework outlines how we are implementing the organisation's agreed asset management objectives--our approach for the long-term sustainable management of assets and delivery of services.

Transport is also implementing the new [Treasury Outcomes Budgeting framework](#), which recognises that decision-making for the allocation of public resources should be based on the outcomes achieved for people.

Align spend and impact

Our achievements



Transport wins 2020 ISC Organisational Leadership Award

In 2020, Transport was awarded the IS Council (formerly ISCA) Organisational Leadership in Infrastructure Sustainability Award for the Public Sector. The award recognised our commitment to sustainable planning, procurement, delivery and operations. Transport was commended for mandating sustainability targets beyond minimum governance requirements, such as solar and climate risk evaluation, to ensure assets are climate resilient. We were also recognised for our industry-leading work in achieving Social Procurement and Workforce Targets. The award acknowledged our work in building a publicly-available [IS Rating Toolkit](#) to help facilitate sustainable outcomes for Transport projects, regardless of contractor experience in sustainability delivery. The rating tool is particularly focused on upskilling tier two and three contractors.

Light rail drives sustainable outcomes

Transport's three light rail projects are pioneering innovative sustainability solutions, while delivering more public transport capacity and reliable services for the people of NSW. The [Sydney CBD and South East light Rail](#), [Newcastle Light Rail](#) and [Parramatta Light Rail](#) projects are focused on major infrastructure investment that maximises social, economic and environmental benefits.

Sustainability has been at the forefront of the decision making and design processes for the projects. From the Strategic Business Case to Final Business Case and final design, all three projects have embedded sustainability into the decision-making framework with outstanding results. They are fuelling jobs growth and the economic development of disadvantaged and diverse NSW communities and businesses, achieving ambitious sustainability targets such 'Excellent' and 'Leading' IS Council ratings, and have been awarded numerous accolades for the implementation of Australian first and state-first sustainability innovations.

The Sydney CBD and South East Light Rail, Newcastle Light Rail, and Parramatta Light Rail projects will play a key role in enabling the state's sustainable transport future by contributing to better sustainability practices and energy efficiency and reducing the state's carbon footprint.



NSW Sustainability Bond Programme

With increased interest in investing in projects that provide better sustainability outcomes, the [NSW Sustainability Bond Programme](#) issued its first 'green bond' in 2018. The TCorp Sustainability Bond has allocated \$209 million to the Transport Access Program Tranche 3 (TAP3) program. The investment supports the program's objective to improve access to public transport for people with disabilities or limited mobility, in line with the Australian Disability Standards. In 2020, around 59 per cent of NSW train stations were deemed accessible and by 2023, when the TAP3 program is complete, 73 per cent of NSW train stations will be accessible.

Pacific Highway upgrade – Woolgoolga to Ballina

Transport has worked together with ACCIONA (formerly Lendlease Engineering), Pacific Complete and Lismore City Council to demonstrate the industry viability of recycled crushed glass (RCG) in concrete. The partnership trialled the product on the Pacific Highway, Woolgoolga to Ballina project. Though proven as suitable for many construction uses, its application within concrete has not previously been deemed cost competitive, posing barriers to its application.

By applying around 2000 cubic metres of concrete pavement containing RCG on the project, more than one million glass bottles were diverted from landfill. The trial has increased industry demand and reduced the cost per tonne, making a viable business case for the use of RCG in concrete across the industry.

Following on from the success of these trials in 2019 and supported by Transport for NSW, the Wells Crossing to Glenugie (WC2G) section of the Woolgoolga to Ballina Pacific Highway upgrade project adopted the RCG in concrete initiative with over 12,800m³ of lean mix concrete pavement placed over an eight kilometre section. This equates to 1500 tonnes of crushed glass diverted from landfill (approximately eight million bottles) and the equivalent saving of natural sand resources.

Empower
customers
to make
sustainable
choices



Empower customers to make sustainable choices

Why it is important



Ultimately, Transport is working to achieve a more sustainable future for our communities in partnership with our customers.

There are now more than 7.6 billion people living on Earth. Equipping individuals to make informed decisions around sustainability has the potential to have a material impact on the planet.

In NSW, there is a vast road and public transport network available to residents and visitors. It is vital the community is provided with easy access to clear and accurate information on the positive and negative impacts of their day-to-day behaviours and habits. Encouraging people to reduce their private car use by choosing alternative transport options, such as public transport, walking or cycling, will drive greater environmental, social and economic sustainability outcomes. Reducing private car usage provides the additional benefit of improving safety outcomes on our roads. We aim to communicate these benefits to our customers to inspire them to make more sustainable changes in their own lives.

Ultimately, Transport is working to achieve a more sustainable future for our communities in partnership with our customers. By empowering our customers to make informed and sustainable decisions about transport mode usage, we will create a greener NSW.



Goals

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



Overview

The way people use the transport network is changing. In the future, it is predicted that our customers will be less likely to have a driver's licence or own a car.

Their travel patterns will also differ from today because they are more likely to be flexible about where, and what hours, they work. We see an increase in customers considering alternative transport options such as public transport, walking, cycling and micro-mobility devices.

In the past our customer's annual travel included:

-  • More than **424 million trips** on Sydney, intercity and regional trains
-  • Over **391 million trips** on metropolitan, outer metropolitan, rural and regional buses
-  • Nearly **13.5 million journeys every day** on Sydney's road network
-  • Over **500 million** 'walking only' trips
-  • **2.2 billion** walking and cycling trips.

Our challenges

While we are encouraging customers to shift from private vehicles to public transport as a more sustainable choice, they may not mode shift for a number of reasons. These include public transport being – or being perceived to be – more expensive than private transport, with customers making a trade-off between efficiency, cost and sustainability. They can also face a lack of first and last mile options and a lack of accessible public transport, particularly outside metropolitan areas.

Influencing and changing customer behaviour is a key challenge across marketing campaigns, projects and initiatives. Our customers often have habits and preferences for how they like to commute on public transport, such as their preferred mode, how they plan and pay and the times in which they travel. Disrupting set habits and behaviours can be difficult

The COVID-19 pandemic has significantly impacted how customers interact with the transport network and the service they expect to receive. At the beginning of the pandemic, we acted quickly, establishing a COVID-19 taskforce to respond to changing customer needs to maintain confidence in our services. To help take the burden off the public transport network and keep our customers and communities safe, we rolled-out pop-up cycle lanes, automated pedestrian crossings, increased cleaning of public transport and introduced measures to allow social distancing. Across our regional train services, we increased key messaging around booking ahead during COVID-19 to ensure services are booked at safe capacities and enable our customers to social distance on board.

Empower customers to make sustainable choices

Our approach



Everything we do is customer-centred. To engage effectively with our customers, we need to understand and adapt to their changing transport needs. Our marketing campaigns are therefore increasingly using human-centred design and co-design principles.

By assessing, testing and validating solutions with customers, we can adapt to deliver safe, productive and sustainable transport options. Market research prior to campaign launch helps us set benchmarks for evaluation and our creative testing process ensures our communication materials and campaign messages perform well with our target audiences, boosting campaign reach and effectiveness. Post-campaign evaluation helps to understand the performance of a campaign and inform future campaigns.

All communication campaigns adhere to the compliance guidelines and peer review process of the [Government Advertising Act 2011](#). Approval of campaigns is required by the Transport Secretary and is received through a Secretary Compliance Certificate. Any campaign more than \$250,000 is peer reviewed to ensure it is fair and responsible, contains an 80/20 split of metropolitan/regional media spend and has a 7.5 per cent spend allocation targeted to Indigenous and culturally and linguistically diverse communities. Audits are undertaken by NSW Treasury every year, with NSW government agencies randomly selected. Service or campaign-related complaints can be made through Transport's social media channels and a call centre that operates between 6am-10pm every day, with a commitment to triage a complaint within 24 hours. In the reporting period, there have been no instances of non-compliance regarding marketing communications.

Our breadth of regional and metropolitan services offer alternative transport modes to private car use. We aim to make it easy for customers to plan a trip by providing information that is accurate and timely, as well as presenting different and more sustainable transport options. In regional areas, we are improving services through the [16 Regional Cities Services Improvement Program](#) and the New Intercity Fleet service, increasing customer access to public transport and socioeconomic opportunities. We have delivered a community transport awareness campaign aimed at seniors aged 65-plus, or 50-plus for Aboriginal or Torres Strait Islanders as well as customers who are transport disadvantaged, to provide easier connections to daily tasks and local trips. The campaign has been designed to increase awareness and provide education on eligibility and booking processes to help customers stay mobile, independent and at home.

A successful transport system is safe, integrated and offers facilities for walking, cycling and public transport. It also delivers positive social, economic and environmental outcomes. We aim to provide our customers with a variety of transport options to ensure they feel safe and can experience sustainable door-to-door journeys across the NSW transport network.

Transport utilises Travel Demand Management (TDM), an approach to transport planning and operations which focuses on influencing the factors that affect demand, rather than concentrating efforts on additional supply or capacity. The benefits of using TDM include improved customer journeys and experiences, and transport network and land use efficiencies including reductions or deferrals of capital spending upgrades and enablement of broader benefits to society. Transport has a dedicated TDM unit targeting long term, sustainable travel behaviours to support social, economic and environmental outcomes.

Empower customers to make sustainable choices

Our achievements



Driving socioeconomic opportunities in regional NSW

Our NSW regional cities are thriving economic areas, but often lack transport options for the first and last mile of customer's journeys. To improve public transport frequency and connections for these areas, we rolled out the [16 Regional Cities Services Improvement Program](#), our commitment to improving public transport service connections throughout regional NSW. This aims to improve access to work, schools, health, social and recreational activities. We trialled the Route 980 Caringbah South 'Turn Up and Go' regional bus service from late 2019 to late 2020 to increase bus service frequency and improve train connections. The trial saw an increase in bus use by 250 per cent, reduced private car use and improved customer access to social and economic connections.

Our on-demand travel credit scheme, through Opal Connect, gives customers up to \$2 travel credit for every transfer between on-demand services within 60 minutes. This incentivises customers to use on-demand options for the first and last mile of their public transport journey.

Further, the New Intercity Fleet service will provide state-of-the-art trains connecting customers to Sydney, Central Coast, Newcastle, Blue Mountains and the South Coast areas. The new fleet provides improved safety, accessibility, comfort and technology on trains that are 33 per cent more energy efficient than the old fleet.

Keeping communities healthy through active transport options

Our customers have set habits and preferences when they travel, including which transport modes they use, how they plan and pay for their trip. We are encouraging customers to make more sustainable transport choices, such as cycling and walking for short trips.

Our recent behaviour change campaign encouraged cycling and walking across our transport network. By March 2021, bike riding had increased by 2.4 per cent and walking by 1.1 per cent, compared to October 2020. We are walking the talk by encouraging our employees with school-aged children to take up cycling through the 'Ride on the footpath with your kids' campaign.

As part of our vision for a greener and healthier future, all our new projects must include modes of active transport in their scope, with more than 28 kilometres of new cycleways now being added across NSW. Parramatta Light Rail's active transport links will encourage cycling and walking and connect the light rail network and other types of public transport. The project's newly-installed bridge, spanning James Ruse Drive at Rosehill, will accommodate the light rail and a walking and cycle path.

Our transportnsw.info website shows active transport options for cycling and walking to encourage customers to be more active. The site will soon include location information for bike lockers.

Customer safety

Customer safety is the highest priority for our public transport network, or when maintenance activities are occurring. We keep customers up-to-date and informed of all track works and present alternative public transport options. At Parramatta Station, our awareness campaign encouraged customers to use wider gates to reduce injuries caused by customers using narrow gates when travelling with luggage. Our pedestrian and cyclist campaign in Sydney's CBD and south east encouraged motorists, pedestrians and cyclists to share the road network, encouraging sharing the road network safely. The campaign resulted in zero fatalities and a decrease in reported safety incidents. Our digital team is now working on a campaign to ensure female safety after dark while travelling on public transport.



COVIDSafe Travel Choices

In response to requests for support from businesses and peak bodies preparing to return safely to the workplace in a COVID-19 environment, the Transport Customer Behaviour team launched the COVIDSafe Travel Choices initiative in May 2020. The initiative was designed to help businesses and their employees make the right decisions about if, when and how to travel for work as restrictions began to ease. It is also supporting employers to target sustainable long-term travel behaviour for their employees beyond COVID-19.

The COVIDSafe Travel Choice approach has been agile, responding to frequent changes in COVID-19 prevalence, policies, attitudes, working practices and travel trends. It has centred on employer and employee needs and insights. A recent evaluation showed it played an important role during Transport's pandemic response in 2020, acting as a source of government information and policy for employers.

The initiative's design was informed by stakeholder engagement, insights from industry, the transport network, international trends and COVIDSafe best practices, with a key focus on data. Since its inception, more than 300 stakeholders have been engaged in collaborative conversations, including through workshops and forums at the Travel Demand Management (TDM) Community of Practice.

Scenarios and situations were often changing daily during the COVIDSafe Travel Choices program. This shows TDM can be agile, responsive, apply to a wide audience and a diversity of scenarios, planned and unplanned, and play a key role managing travel behaviour when situations change.

Get involved



Help us create a NSW where every journey is people and planet positive.

Transport is on a sustainability journey. This report marks a significant step forward as we outline our focus areas and goals, and reinforce our commitment to improving environmental, social, cultural and economic outcomes. It supports our Transport Sustainability Action Plan, providing us direction as we move forward on our mission. The process of compiling our inaugural report has allowed us to identify areas for improvement in both our actions and how we report on and track progress. Our learnings from this document and feedback from stakeholders will inform the next iterations of both our sustainability planning and reporting.

We know the best way to achieve a better, more sustainable future for NSW is through working hand-in-hand with our customers, partners and the broader NSW community. To showcase our efforts and the progress we're making, we've created an online portal where you can view our annual report, plus videos and other content profiling our case studies. We will share regular updates throughout the year, so you can see how we're tracking against our goals and targets. The portal is also a chance for us to interact with you and seek your input on our sustainability initiatives and progress.



You can submit your questions and feedback on the portal via sustainability.transport.nsw.gov.au



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Glossary



| Term | Definition |
|--|--|
| Aboriginal heritage | The tangible (objects) and intangible (dreaming stories, songlines, places) cultural practices and traditions associated with past and present-day Aboriginal communities. |
| Active transport | Physical activity undertaken as a means of transport. It includes travel by foot, bicycle and other non-motorised vehicles. |
| Addressable spend | For the purposes of the Aboriginal Procurement Policy, addressable spend is defined as a category of spend where there are opportunities for agencies to engage Aboriginal businesses. |
| Ballast | Free-draining coarse aggregate or metallurgical slag used to support railway tracks. |
| Biodiversity | The variety of life forms, including flora and fauna, the genes they contain and the ecosystems in which they live. |
| Biodiversity credit | Biodiversity credits are the common unit of measure for offsets in the Biodiversity Offsets Scheme and the previous BioBanking Scheme. Biodiversity credits are used to measure both: <ul style="list-style-type: none"> • The unavoidable impacts on biodiversity from development and clearing at a development site, and • The predicted improvement in biodiversity condition gain at a stewardship site. |
| Biodiversity offset | The gain in biodiversity achieved from the implementation of management actions on areas of land to compensate for losses to biodiversity from the impacts of development. |
| Biodiversity agreements | Includes both biodiversity stewardship agreements and biobanking. |
| Biodiversity Stewardship Agreement (BSA) | Land that is designated by a biodiversity stewardship agreement to be a biodiversity stewardship agreement for the purposes of the Biodiversity Conservation Act 2016. BSA's are voluntary agreements between the Minister for the Environment and a landholder to permanently protect and manage an area of land to improve its biodiversity. It enables landholders to generate biodiversity credits, which landholders can sell to: <ul style="list-style-type: none"> • a developer; or • to the Biodiversity Conservation Trust (BCT); or • to other interested parties. |
| Biobanking | A voluntary biodiversity offset scheme aimed at helping to address the loss of biodiversity by habitat degradation and loss. |
| Benefits Realisation Management | A process that proactively identifies benefits, plans for their realisation and tracks achievement versus plan. It involves executing and measuring the benefits, as well as, organising and managing so that potential benefits expected from investment in a project are actually realised. It is a continuous process running through the whole project lifecycle. |
| Carbon emissions | Total greenhouse gas emissions expressed as carbon dioxide equivalent CO ₂ -e. |
| Carbon footprint | The amount of greenhouse gas released into the atmosphere as a result of the activities of a particular individual, organisation or community expressed in CO ₂ equivalents. |
| CBD | Central Business District. |
| Climate change | A change in the state of the climate that can be identified (e.g. by statistical tests) by changes in the mean and/or variability or its properties and that persists for an extended period of time, typically decades or longer. |

| Term | Definition |
|---|--|
| Climate resilience | The ability to anticipate, prepare for and respond to hazardous events, trends, or disturbances related to climate. |
| Circular economy | An economic system that tackles global challenges like climate change, biodiversity loss, waste and pollution. |
| COVID-19 | Coronaviruses are a large family of viruses known to cause respiratory infections. These can range from the common cold to more serious diseases such as Severe Acute Respiratory Syndrome (SARS) and Middle East Respiratory Syndrome (MERS). This new coronavirus originated in Hubei Province, China. The disease caused by the virus is named COVID-19. |
| Co-design | Enabling or empowering people affected by a policy issue to contribute to its solution. It brings citizens and stakeholders together to design new products, services and policies. |
| CSIRO | Commonwealth Scientific and Industrial Research Organisation. |
| Customer | Everyone who uses transport services or infrastructure is a customer of the NSW transport system. Whenever a person drives, travels by train, bus or light rail, or walks or cycles, they become a customer of the transport system. Our customers also use our transport networks for business purposes, to deliver goods and services, and to move freight across the State and beyond. |
| Direct impacts | Direct impacts on biodiversity include those related to clearing native vegetation and threatened species habitat and impacts on biodiversity values prescribed by the Biodiversity Conservation Regulation 2017 (the BC Regulation). |
| Ecological system | A system formed by the interaction of a community of organisms with its environment. |
| Edge effects | A change in species composition, physical conditions or other ecological factors at the boundary between two ecosystems or the ecological changes that occur at the boundaries of ecosystems (including changes in species composition, gradients of moisture, sunlight, soil and air temperature, wind speed and other factors). |
| Embodied carbon | The sum of all the greenhouse gas emissions resulting from the mining, harvesting, processing, manufacturing, transportation and installation of building materials. |
| Energy efficiency | The ratio of transport output to energy input. |
| Environmental improvement measure | Management responses or corrective actions required following environmental incidents, inspections or audits. |
| Environmental incidents | An environmental incident is an event or set of circumstances, as a consequence of which pollution (air, water, noise, or land) or an adverse environmental impact has occurred, is occurring, or is likely to occur. Adverse environmental impact includes contamination, harm to flora and fauna (either individual species or communities), damage to heritage items and adverse community impacts. An unexpected find that is not managed in accordance with relevant procedures/ guidelines is also considered an environmental incident. |
| <i>Environmental Planning and Assessment Act 1979 (NSW)</i> | Provides the legislative framework for land use planning and development assessment in NSW. |
| Environment Protection Authority (EPA) | The NSW Environment Protection Authority (EPA) is the primary environmental regulator for NSW. |
| Evolving Transport | The integration of Roads and Maritime, Sydney Trains, NSW Trains, State Transit and Sydney Metro. |

| Term | Definition |
|--------------------------------------|--|
| Fauna | Any mammal, bird, reptile or amphibian. |
| Fauna fence | Fencing designed to prevent fauna access to construction areas or operational infrastructure. Fauna exclusion fencing is often combined with connectivity measures designed to provide safe passage for fauna. |
| Fauna furniture | Built structures installed as part of a connectivity structure that are designed to increase the likelihood that target fauna are safely using the structure. Examples include refuge poles and ledges. Fauna furniture can also be supplemented by natural features such as boulders and rocks. |
| Flora | Any species of plant or fungi. |
| Genetic diversity | Refers to the differences in the genetic makeup of a distinct species and to the genetic variations within a single species. |
| GHG/greenhouse gas emissions | Greenhouse gases absorb and emit radiant energy within the thermal infrared range, causing the greenhouse effect. This includes carbon dioxide, methane, and nitrous oxides. |
| Global Reporting Index (GRI) | A widely used framework used for sustainability reporting. |
| Ground level troughing | Normally used for main cable routes where trenching is not feasible e.g. subways, tunnels, station platforms or narrow sections of the rail corridor. |
| Habitat | An area or areas occupied, or periodically or occasionally occupied, by a species, population or ecological community, including any biotic or abiotic component. |
| Habitat connectivity | Elements of the landscape that permit movement of organisms or genetic flow across the landscape by linking otherwise isolated areas. |
| Habitat fragmentation | Describes the result of removal (usually by clearing) of large parts of a natural area, resulting in the retention of only small parts (fragments or remnants) of habitat. |
| Human-centred design | An approach to problem solving commonly used in design and management frameworks. It develops solutions to problems by involving the human perspective in all steps of the problem-solving process. |
| Human rights | A set of moral and legal guidelines that promote and protect a recognition of our values, identity and ability to ensure an adequate standard of living. The basic standards by which we can identify and measure inequality and fairness. |
| HVAC systems | Heating, ventilation and air conditioning. |
| Indigenous person | A person of Aboriginal or Torres Strait Islander descent who identifies as such and is accepted by the community in which they live. |
| Indirect impacts | Impacts that occur when the proposal affects native vegetation and threatened species habitat beyond the development footprint or within retained areas (e.g. transporting weeds or pathogens, dumping rubbish). This includes impacts from activities related to the construction or operational phase of the proposal and prescribed impacts.) |
| Infrastructure Skills Legacy Program | Infrastructure investment to boost the number of skilled construction workers and create fresh pathways to employment across the state. |

| Term | Definition |
|---|---|
| Infrastructure NSW (iNSW) | Infrastructure NSW is an agency of the Government of NSW that provides independent advice to assist the Government in identifying and prioritising the delivery of critical public infrastructure across the State for economic and social wellbeing. |
| Infrastructure Sustainability Council (IS Council) | Infrastructure Sustainability Council (IS Council) is a member based, not-for-profit, industry peak body. IS Council works to advance sustainability outcomes in infrastructure through the development and facilitation of the IS rating scheme. |
| International Association for Public Participation (IAP2) engagement spectrum | The International Association for Public Participation (IAP2 International) is responsible for the spectrum that shows varying levels of participation that defines the public's role in any community engagement activity. |
| LED | Light-Emitting Diodes |
| Lifecycle cost | The process of assessing the cost of a product over its lifecycle or a portion thereof. Lifecycle costing is a technique that is used for predicting and assessing the cost performance of constructed assets. |
| Light rail boot | The rubber insulation that separates the steel rail from the concrete. It controls stray electrical current, noise and vibration and improves the life of the track. |
| Low carbon | Simply means less carbon dioxide. Can be achieved through energy efficiency, renewable energy sources, low environmental impact, zero waste and sustainable materials. |
| Macro synthetic fibres | Modern concrete reinforcement used as crack control and structural reinforcement in concrete. |
| Marine Pollution Act | An Act to protect the State's marine and coastal environment from pollution by oil and certain other marine pollutants discharged from ships. |
| Material footprint | The attribution of global material extraction to domestic final demand of a country. The total material footprint is the sum of the material footprint for biomass, fossil fuels, metal ores and non-metal ores. |
| Modern slavery | The severe exploitation of other people for personal or commercial gain and includes anything that falls within the definition of that term in the Modern Slavery Act 2018 (NSW). |
| Natural ecosystem | A community of living and non-living entities; occurs freely in nature. |
| Net-zero emissions | Achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere. |
| New Intercity Fleet | A fleet of trains that will travel through areas of Darug country, extending from the Sydney CBD to the Blue Mountains and other Aboriginal countries, including Wiradjuri, Awabakal and Dharawal |
| No net loss | Projects will have achieved no net loss where the expected loss from infrastructure development has been offset by: <ul style="list-style-type: none"> • Purchase or Biodiversity Conservation Fund (BCF) payment of the required number and type of biodiversity credits in accordance with the Biodiversity Assessment Method (BAM) or Transport's guidelines; and/or • Conservation measures have been delivered in accordance with the requirements of Transport's policy and guidelines. |

| Term | Definition |
|--|---|
| Non-Aboriginal heritage | Places, buildings, works, relics, movable objects or precincts considered significant based on historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic values. |
| NSW | New South Wales. |
| NARClIM | NSW and ACT Regional Climate Modelling. |
| On-demand service | Transport services that are responsive to the demands of individual customers, rather than a fixed timetable or route. They can provide new or improved coverage to areas where traditional public transport is difficult to provide. They may act as feeder services to stronger public transport corridors. |
| Opal connect | A separate account to the Opal account and On Demand app account which can be used to pay for On Demand travel and earn travel credits. |
| Operating agencies | Transport's operating agencies include Government transport agencies Sydney Trains, NSW TrainLink, State Transit and Sydney Metro. |
| Ordinary portland cement | A basic ingredient of concrete, mortar, stucco, and non-speciality grout. |
| Point to Point services | In NSW, point to point transport is any passenger service in a vehicle (other than a bus) that can take customers on the route they choose, at a time that suits them, for a fare. This includes taxis, limousines, rideshare services, airport transfers and other hire vehicles. |
| Private operators | A private person, corporation or partnership, cooperative or unincorporated association, or joint venture or consortium that constructs, improves, rehabilitates, owns, leases, operates, or manages for a fee. |
| PPAs | Power Purchase Agreements. |
| PV | Solar Photovoltaic. |
| Protected conservation area | A clearly-defined geographical space that is recognised, dedicated and managed, through legal or other effective means, to achieve long-term conservation of nature with associated ecosystem services and cultural values.) |
| Public transport | Includes train, bus (government and private), ferry (government and private) and light rail (government and private) services. |
| Reclaimed asphalt pavement | Asphalt which was previously used as an engineering material and which must not contain a detectable quantity of coal tar or asbestos. |
| Regenerate | Bring new and more vigorous life to (an area, industry, institution, etc.). |
| Replacement tree planting | Tree-replacement programs designed to compensate for the unavoidable removal of street or other amenity trees, both native and exotic, that are valued by people due to their beauty, function, historical or cultural significance. |
| Secretary Compliance Certificate | A certificate that indicates the communications campaign adheres to the Government Advertising Act 2011. |
| Section 170 Heritage and Conservation Register | A register established in accordance with section 170 of the Heritage Act 1977 to record all heritage items in the ownership or under control of Transport. |
| SEED | Sharing and Enabling Environmental Data. |

| Term | Definition |
|---|---|
| Small to Medium Enterprises | A business with revenues, assets or numbers of employees that fall below a certain level. |
| Social procurement/ responsible procurement/ sustainable procurement/ workforce development | <p>The use of an organisation's buying power to generate social value above and beyond the value of the goods, services or construction being procured.</p> <p>Procurement is a practical and important mechanism to achieve government's social and economic policies and objectives.</p> <p>Workforce development relates to government's role in building industry skills and increasing labour market diversity to benefit our customers and communities, build NSW and local economies and future-proof the Transport investment pipeline.</p> |
| Social licence | Ongoing acceptance of a company or industry's standard business practices and operating procedures by its employees, stakeholders and the general public. |
| Songlines | A route through the landscape which is believed to have been travelled during the Dreamtime and which features a series of landmarks thought to relate to events that happened during this time. |
| Supplementary cementitious materials | Materials that, when used in conjunction with portland cement, portland limestone or blended cements, contribute to the properties of hardened concrete through hydraulic and/or pozzolanic activity. |
| Supply chain | A network and sequence of processes between a company and its suppliers to produce and distribute a specific product or service. |
| Sustainability | <p>Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. 1987 Bruntland Commission Report.</p> <p>At Transport, this means considering that the decisions we make today and into the future must balance social, environmental, and economic outcomes for our customers, metropolitan and regional communities, and our State.</p> |
| Sustainability disclosure | Reporting on environmental, social, governance and economic issues. |
| Sustainable materials | Materials used throughout our consumer and industrial economy that can be produced in required volumes without depleting non-renewable resources and without disrupting the established steady-state equilibrium of the environment and key natural resource systems. |
| Sydney Metro | A NSW Government agency constituted by the Transport Administration Act 1988. |
| The BNHCRC | The Bushfire and Natural Hazards Cooperative Research Centre. |
| Telematics | A device that merges telecommunications and informatics and enables information to be shared wirelessly. |
| Threatened species | A critically-endangered species, an endangered species or a vulnerable species listed in Schedule 1 of the Biodiversity Conservation Act 2016. |
| United Nations Sustainable Development Goals | A set of 17 Sustainability Development Goals that provide a shared blueprint for peace and prosperity for people and the planet, now and into the future. |
| Virgin material | A basic material that has never been previously used, developed or processed. |

| Term | Definition |
|-----------------------------|--|
| VENM | Virgin Excavated Natural Material that: <ul style="list-style-type: none"> • Has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agricultural activities • Does not contain sulphidic ores or soils. |
| Waste management efficiency | Reusing and recycling to maximise the use of resources and reduce the creation of waste, pollution and emissions. |
| Weeds | Plants that are unwanted in a given situation and which usually have detectable negative economic, environmental or social impacts. |
| Whole-of-life costs | Total cost across the life of the project. Typical areas of expenditure which are included in calculating the whole-of-life cost include planning, design, construction and acquisition, operations, maintenance, renewal and rehabilitation, depreciation and cost of finance and replacement or disposal. |

Appendices



Appendix 1: People Strategy indicators

| People strategy pillar | Headline indicators | Core change levers | Metrics |
|--|--|--|--|
| <i>How we will achieve our aspiration of thriving people doing meaningful work</i> | <i>Key measures of improvement across our five pillars, supported by change levers and metrics</i> | <i>What we will focus on until the end of 2023 to drive the first horizon for change</i> | <i>How we will track progress across our change levers, projects and initiatives</i> |
| Working together for the greater good | % agreement from employee responses to the question “My organisation works towards achieving the greater good for the community” | Inclusive and diverse | <ul style="list-style-type: none"> • Attraction, promotion and retention of diverse groups • Employee perceptions of inclusion at work |
| | | Empowered and connected | <ul style="list-style-type: none"> • Employee attitudes relating to change, collaboration and empowerment • Utilisation of and satisfaction with flexible working options |
| Evolution of work | % agreement from employee responses to the question “My organisation is making improvements to meet future challenges” | Modern workplaces | <ul style="list-style-type: none"> • Employee attitudes towards the accessibility and efficacy of workplaces |
| | | A sustainable workforce | <ul style="list-style-type: none"> • Progress towards capability and succession plans • Talent acquisition and performance • Reduction in contingent labour |
| Great place to work | % employees who report a positive experience at work | Fairness and respect | <ul style="list-style-type: none"> • Adherence to common role framework • Experience of bullying, harassment and grievances |
| | | An aligned culture and engaged workforce | <ul style="list-style-type: none"> • Cultural shift aligned to our aspirations • Employee attitudes relating to engagement with the organisation, engagement with work and recognition |
| | | Leadership for all | <ul style="list-style-type: none"> • Collective shift towards five ways of leading behaviours in recruitment and development assessments • Utilisation of five ways of leading resources |

| People strategy pillar | Headline indicators | Core change levers | Metrics |
|--|---|--|---|
| <i>How we will achieve our aspiration of thriving people doing meaningful work</i> | <i>Key measures of improvement across our five pillars, supported by change levers and metrics</i> | <i>What we will focus on until the end of 2023 to drive the first horizon for change</i> | <i>How we will track progress across our change levers, projects and initiatives</i> |
| Growing meaningful careers | % agreement from employee responses to the question "I am satisfied with the opportunities available for career development in my organisation" | Optimising performance | Attraction, promotion and retention of diverse groups Employee perceptions of inclusion at work |
| | | Dynamic career pathways | Employee attitudes relating to change, collaboration and empowerment Utilisation of and satisfaction with flexible working options |
| | | Continuous learning | Update of self-directed learning options and behavioural measures of learning agility Utilisation of development plans |
| Safe and well at work | % employees who report a satisfactory sense of wellbeing | Our people are cared for | Employee perceptions of wellbeing at Transport for NSW Participation in wellbeing programs |

Appendix 2: Employee benefits

| Leave | Flexibility arrangements |
|--|--|
| <ul style="list-style-type: none"> • 4 weeks annual leave per year with leave loading for non-Senior Service staff • Up to 15 days of sick leave/carer's leave p.a. • 8 weeks of extended (long service) leave after 10 years of service • Up to 14 weeks of paid maternity or adoption leave, and up to 104 weeks of unpaid parental leave • Eligible staff can purchase up to four weeks of additional leave over a 12 month period | <ul style="list-style-type: none"> • Part-time work • Job sharing • Working remotely from different locations • Variable start and finish times or shift swaps • Using paid or unpaid leave • Accrued flex leave or allocated days off for eligible staff |
| Health | Professional development |
| <ul style="list-style-type: none"> • Employee Assistance Program – free access for staff to confidential professional counselling services • Annual flu vaccination • Fitness passport – Access to more than 400 gyms, pools and recreational centres across NSW at a competitive rate | <ul style="list-style-type: none"> • Study assistance – financial contributions and study leave available to staff undertaking relevant part-time study • Higher duties and secondments • Leadership development programs • Innovation capability programs • Online and classroom based courses • Communities of practice • Women in Leadership online community • Young Professionals Network |

Appendix 3: Safety policy and procedures

| | System review and supporting systems | Governance and assurance | Awareness and competency | Safety and wellbeing |
|---|---|---|---|--|
| Shared Transport Mandatory Standards | <ul style="list-style-type: none"> • Safety Consultation and Communication • Safety Change Management • WHS Risk Management • Information Management • Health and Safety Reporting | <ul style="list-style-type: none"> • Safety Governance and Leadership • Safety Objectives, Targets and Planning • WHS Assurance and Continuous Improvement • Safety in Procurement • Contractor Management • Asset Lifecycle Management • Safety Incident Management • Safety Inspection, Testing and Monitoring • Emergency Preparedness and Response | <ul style="list-style-type: none"> • Rail Safety • Safety Training and Competency | <ul style="list-style-type: none"> • Fitness for Work • Injury Management • Health and Occupational Hygiene |

| | System review and supporting systems | Governance and assurance | Awareness and competency | Safety and wellbeing |
|-----------------------------|---|--|--|---|
| Transport procedures | <ul style="list-style-type: none"> • Change Management • Consultation and Communication • Document Development, Review and Approval • Hazard and Risk Management • Health and Safety in Design (HSID) • Health and Safety Reporting | <ul style="list-style-type: none"> • Continuous Improvement • Emergency Management • Incident Management • Managing Hazardous Manual Tasks • Safety Inspection and Testing • Security • WHS Assurance • WHS Contractor Management • WHS Procurement | <ul style="list-style-type: none"> • Confined Spaces • Electrical • Excavation • Hazardous Chemicals • Heavy Vehicle CoR • Hot Works • Managing Workplace Violence • Noise • Plant and Equipment • Remote or Isolated Work • Safe Driving • Safety Training and Competency • SWMS • Working at Heights | <ul style="list-style-type: none"> • Asbestos • Managing Airborne Contaminants • Managing Workplace Environments • Drug and Alcohol • Fatigue Management • First Aid • Health Assessment • Health Surveillance • Human Factors • Injury Management • PPE • Psychological Health and Wellbeing |

Appendix 4: Internal strategies, policies and other documents or processes referenced

| Document | Overview |
|--|---|
| Aboriginal Engagement Framework – Ngiyani Winangaybuwan Bunmay | A framework to assist Transport staff facilitate appropriate Aboriginal engagement that informs the continuous improvement of our policies, projects and programs. |
| Aboriginal Procurement Policy | The Aboriginal Procurement Policy (APP) will contribute to the NSW Government’s strategic economic policy of Growing NSW’s First Economy. Government procurement provides a significant opportunity to increase skills and economic participation within the State’s Aboriginal and Torres Strait Islander communities. |
| Asset Management Plan | Incorporates design reports and environmental impact assessments to ensure that assets operate according to Transport asset management objectives. |
| Asset Resilience Strategy | The standard practice for assessing ambient environmental conditions for future transport asset and service resilience. |
| Climate Risk Assessment (CRA) | Climate assessment on how climate risk might be addressed across influential stages of the asset lifecycle for Transport projects. |
| Enterprise Risk Management Framework | The methods and processes used by an organisation to manage risks and seize opportunities related to the achievement of their objectives. |
| Final Business Case | Documented proposal that is used to inform an expenditure or policy decision. |
| Independent Design Review Panel | The Transport Design Review Panel (DRP) is delivered by the Place and Urban Design team within the Customer Strategy and Experience Branch of the Customer Strategy and Technology division of Transport. The DRP provide independent, expert and impartial design review and advice to improve the quality of a wide range of Transport projects and programs. |
| Jobs for People with Disability plan | An internal plan to guide Transport’s actions under the Disability Inclusion Action Plan. |
| Marine Estate Management Authority | Advises the NSW Government on the management of the NSW Marine Estate. The Authority brings together the heads of the NSW Government Agencies with key marine estate responsibilities. |
| People Strategy | Designed to foster a workforce of engaged, talented and diverse forward-thinkers which will enable Transport to deliver the priorities of its 10-year Blueprint strategy. |
| Procedure for Aboriginal Cultural Heritage Consultation (PACHCI) | The Procedure for Aboriginal Cultural Heritage Consultation and Investigation is a process for investigating potential impacts to Aboriginal cultural heritage as a result of Transport planning, development, construction and maintenance activities. |
| Procurement Standard | The Transport for NSW Procurement Standard sets the standards for the procurement of goods and services for Transport. These align Transport to the guiding principles in the Transport Procurement Policy and NSW Procurement Policy Framework that must be read in conjunction with the Transport Delegations. |
| Reconciliation Action Plan (RAP) | An inaugural Transport-released document that acknowledges and pays respect to the role of Aboriginal and Torres Strait Islander peoples as custodians of the lands where we work. The RAP demonstrates Transport’s commitment to working towards reconciliation both within Transport and in communities across NSW. |

| Document | Overview |
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| Secretary Compliance Certificate | A certificate that indicates the communications campaign adheres to the Government Advertising Act 2011. |
| Sydney Roads Asset Performance Contract (SRAP) | Transport's Sydney Roads Asset Performance contracts. |
| Strategic business case | Prepared after a need has been identified. It goes beyond available information to assess the robustness of the need and consider a broad range of alternative solutions, including preliminary estimates of costs, benefits and timing. It is used to justify the resources necessary to develop a Final Business Case and its supporting documentation. |
| Sustainability Strategic Management Plan | A document that provides the framework for identifying and managing sustainability risks, impacts and opportunities for a project. It covers sustainability obligations associated with environmental, social and economic outcomes of the investment to be met, managed and tracked across the relevant phases of the asset lifecycle. |
| Transport Audit and Risk Committee | Provides independent advice to the Secretary on the effectiveness of the agency's governance and risk management arrangements. |
| Transport Business Case Guide | Explains the steps and content required for a business case. Transport requires business cases to inform evidence-based and outcomes-focused whole-of-life expenditure decisions that are in the public interest and demonstrate value for money. We achieve this by requiring that all transport programs and projects (capital and recurrent, including Information and Communications Technology) have a fit-for-purpose business case, which meets with NSW Government policies and Transport guidelines, prepared and submitted for approval. |
| Transport for NSW delegations | Documentation that identifies the roles within TfNSW that have been given authority to make specific decisions. Delegations of authority, from the person with the ultimate legislative authority, empower staff of Transport to make decisions and take action on behalf of Transport (or the authorising entity). |
| Transport Supplier Sustainability Charter | Sustainability initiative currently under development. |
| Transport Sustainability Plan | An internal planning document that sets yearly goals and actions with a focus on making sustainability simple, consistent, transparent, tangible and accessible. The plan sets the foundation for annual sustainability reporting and addresses legislative requirements. |
| Transport Sustainable Design Guidelines | The Sustainable Design Guidelines seek to deliver sustainable development practices by embedding sustainability initiatives into the planning, design, construction, operations and maintenance of transport infrastructure projects. |
| Treasury Outcomes Budgeting Framework | Provides a common framework for reporting, managing agency resources and design making. It ensures the public sector stays focused on the delivery of outcomes for the people of NSW. |
| Workforce procurement strategies | Documents how an organisation runs its procurement function. It provides an overview of the governance framework and a roadmap for the way an organisation conducts its procurement activity. |

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