



# Environmental Sustainability Strategy 2019-2023

Roads and Maritime Services



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Cover – Princes Highway Berry Bypass includes a noise mound, reducing traffic noise to homes.

# Foreword



Roads and Maritime Services is making NSW a better place to live by connecting communities and businesses safely and efficiently. Respecting our community and the environment is a key priority identified in our Corporate Plan and environmental sustainability is now embedded in our business processes, our operational activities and in the delivery of new and improved infrastructure.

The results of our efforts are demonstrated across a wide range of sustainability achievements to date. However, there is more work to do and through this strategy we are committing to further reduce the impact of our activities in the future.

The demand on our infrastructure and services is growing. We are custodians of \$94.4 billion worth of road and maritime assets which cover about six per cent of the State's landmass and represent about 26 per cent of the State's infrastructure. To meet the growing needs of the State we are delivering new and improved transport links with record levels of investment. This is an enormous responsibility as the decisions we make today must consider that the lifespan of our assets is typically 100 years or more.

Our sustainability commitment goes beyond managing our own environmental footprint. Our transport networks assist the State's economy to grow and our heritage, liveability and procurement initiatives have a positive impact on communities and businesses across the State. For these reasons, our sustainability planning is beyond individual projects and covers the long term and cumulative impact of our work.

This strategy outlines focus areas which address the most important environmental and sustainability issues associated with our activities. It also identifies how we are aiming to build on our existing achievements, to continue to improve over the next five years and how we will measure our success.

Working collaboratively, embracing innovation and promoting new technologies will be central to improving our sustainability performance. The success of this strategy will rely on critical contributions from our employees, contractors and supply chain and I would like to thank them for their continued commitment to assist Roads and Maritime deliver more environmentally sustainable infrastructure and services.

A handwritten signature in black ink, appearing to be 'K. Kanofski'.

Ken Kanofski  
**Chief Executive**



# Introduction

Environmental sustainability is an essential aspect of Roads and Maritime Services' corporate responsibility. This means considering the impacts of how we plan, deliver, operate, maintain and regulate NSW's road and maritime networks.

*Roads and Maritime Services Environmental Sustainability Strategy 2019–2023* (the strategy) builds on the achievements from previous strategies:

- *Roads and Maritime Services Environmental Sustainability Strategy 2015–2019.*
- *Towards a More Sustainable RTA; RTA's Environmental Sustainability Strategy 2010.*

These strategies have helped our agency integrate sustainability initiatives into core business activities and deliver key achievements.

The *Environmental Sustainability Strategy 2019–2023* identifies 10 focus areas to embed into the delivery of our infrastructure and services. Compared with previous strategies it has an additional focus area – corporate sustainability. This is aimed at building sustainability awareness and capacity in our workforce, and improving the environmental performance of our work places. Each focus area nominates an improvement objective supported by targets to measure our progress. Meeting our targets involves a range of key initiatives which we will action over the next five years.

The *Environmental Sustainability Strategy 2019–2023* addresses a range of legislative requirements and adopts key State Government policies and plans.



Birchgrove Wharf in Sydney's Inner West – litter and waste is regularly removed from Sydney Harbour.

# Strategic and regulatory drivers



## Key achievements



**Recycled more than 95%**  
of key materials such as **concrete, asphalt and virgin excavated natural materials** that were generated during **construction, maintenance or demolition**.



Completed conversion of all of our  
**4000 traffic lights**  
to high-efficiency LED lamps saving  
**72%** of electricity.



Developed an interactive web portal to inform the community about  
**Sydney's air quality** and our work in **upholding our high air quality standards**.



Worked with NSW Office of  
**Environment & Heritage biodiversity** agreements to place  
on **Roads and Maritime owned land at six locations across NSW** to help offset the impacts of road development on biodiversity.



**Removed 13.5 million litres** of raw sewage from **public pump-out facilities** in **Sydney Harbour**.



We carry out more than **200 Aboriginal cultural heritage consultation and investigation** assessments and deliver about **15 Aboriginal focus group meetings** a year.



Obtained **Heritage Council endorsement** of the **Roads and Maritime Timber Truss Bridge Conservation Management Plan 2018**, which guides all future work on timber truss bridges.



**Purchased 6% GreenPower** to offset carbon emissions associated with our **electricity consumption**.



**Removed 2500 cubic metres – 1640 truckloads – of litter and waste** from **Sydney Harbour** and the navigable waters of the **Parramatta and Lane Cove rivers** each year.



All WestConnex project stages to date have been given **Infrastructure Sustainability Council of Australia project sustainability ratings** of  
**Excellent or Leading**.

# Focus areas

The 10 focus areas address the most important environmental sustainability aspects associated with the activities of our agency. We will embed them into our processes for delivering infrastructure and services.

Each focus area has an objective, supporting targets and initiatives.



## Energy and carbon management

Minimise energy use and reduce carbon emissions without compromising the delivery of services to our customers.



## Climate change resilience

Design and construct transport infrastructure to be resilient or adaptable to climate change impacts.



## Air quality

Minimise the air quality impacts of road projects and support initiatives that aim to reduce transport-related air emissions.



## Resource use and waste management

Minimise the use of non-renewable resources and minimise the quantity of waste disposed to landfill.



## Pollution control

Minimise noise, water and land pollution from road and maritime construction, operation and maintenance activities.



## Biodiversity

Improve outcomes for biodiversity by avoiding, mitigating or offsetting the potential impacts of road and maritime projects on plants, animals and their environments.



## Heritage – Aboriginal and non-Aboriginal

Manage and conserve cultural heritage according to its heritage significance and contribute to the awareness of the past.



## Liveable communities

Provide high quality urban design outcomes that contribute to the sustainability and liveability of communities in NSW.



## Sustainable procurement

Procure goods, services, materials and works for infrastructure development and maintenance projects that over their lifecycle deliver value for money and contribute to the environmental, social and economic wellbeing of the community.



## Corporate sustainability

Communicate our sustainability objectives to employees, contractors and other key stakeholders, and foster a culture which encourages innovative thinking to address sustainability challenges.





# Energy and carbon management

## Objective

- Minimise energy use and reduce carbon emissions without compromising the delivery of services to our customers.



Roads and Maritime supports the long-term objectives of the *NSW Climate Change Policy Framework* including achieving net-zero emissions by 2050 and assessing carbon emissions savings in economic appraisals for major public infrastructure projects.

Operating our road and maritime networks, and constructing new infrastructure uses significant amounts of energy. We use energy to operate tunnels and buildings, to power traffic lights and street lights, and to drive heavy and light vehicle fleets. We're also using energy to deliver one of the largest transport infrastructure programs in the State's history. The majority of energy used in our activities and road transport generally still comes from carbon based non-renewable sources such as petrol, diesel and coal generated electricity, all of which generate carbon emissions.

Roads and Maritime's ongoing work in reducing congestion and improving travel times positively impacts on the energy used by drivers, commercial and heavy vehicle operators including freight operators, and other road users. Our programs have led to energy efficiency along with financial savings and more reliable travel times.

We aim to lead the road construction industry in reducing our carbon footprint, including in our supply chains, through a range of policies including the sourcing of construction material. We assess and implement efficiency opportunities as they arise using the energy management hierarchy (see below). We have already converted all of our 4000 traffic lights to high-efficiency LED lamps which have reduced our use of electricity for traffic lights by 72 per cent. We are now focusing on converting all street lights within our network.

## Energy management hierarchy

Priority		Management measure
 	<b>Most preferred</b>	<ul style="list-style-type: none"><li>• Avoid: avoid the need for using energy</li></ul>
		<ul style="list-style-type: none"><li>• Reduce: reduce demand by using energy efficient technologies</li></ul>
	<b>Least preferred</b>	<ul style="list-style-type: none"><li>• Substitute: substitute renewable energy in place of fossil-fuel generated energy</li></ul>

Target	Energy and carbon management targets
EC1	Reduce operational energy consumption as measured against level of activity by 15% by 2023.
EC2	Improve year-on-year construction energy efficiency on all State significant infrastructure projects.
EC3	Install energy efficient LED light sources into all new and end-of-life replacement street lights owned by Roads and Maritime.
EC4	Complete a feasibility study on sourcing operational electricity from carbon neutral or zero carbon energy sources by end of 2019. Implement feasible options by end of 2021. <sup>1</sup>
EC5	Improve year-on-year supply chain carbon emissions intensity (including embodied energy in materials) when sourcing construction materials for State significant infrastructure projects.
EC6	Purchase new light vehicles with a minimum fuel efficiency standard that is at least the market average for that vehicle category where fit for purpose. <sup>2</sup>
EC7	Improve the year-on-year average CO <sub>2</sub> emissions score <sup>3</sup> for our fleet of light vehicles up to 3.5 tonnes.

Key initiatives	Targets						
Monitoring, reporting and setting baselines for our direct and supply chain energy use and carbon emissions.	1	2		4	5	6	7
Investigating, and where appropriate, implementing new or innovative energy efficient or low emission technologies across our activities to support the NSW Climate Change Policy Framework objective to achieve net-zero emissions by 2050.	1	2	3	4	5	6	7
Setting project specific energy efficiency and carbon emission improvement targets for State significant infrastructure projects covering both direct and indirect emission sources.		2		4	5		
Educating and raising awareness in employees, contractors and our supply chain regarding the need for increased energy efficiency and reductions in carbon emissions.	1	2	3	4	5	6	7
Assessing our sites for their suitability for on-site solar leasing and battery storage, and where feasible and cost effective, install solar photovoltaic generation to support the NSW Government's 2021 and 2024 solar targets. <sup>4</sup>				4			
Partnering with energy suppliers to identify additional cost effective off-site low carbon energy sources.				4			
Developing a strategy by 2020 to transition all Roads and Maritime street lights and road signs to LED light sources.	1		3				
Using solar panels to power roadside signage, alert and messaging systems when cost effective and fit for purpose.	1	2		4			
Investigating options for low emission or higher energy efficiency heavy vehicles and machinery within the Roads and Maritime fleet.	1	2				6	7
Including upfront and ongoing requirements for energy efficiency performance, data collection and reporting in all contracts over \$50 million.	1	2		4	5	6	
Ensuring the road network effectively integrates with rail, air and maritime transport networks to efficiently move freight and increase access for B-Double and B-Triple trucks on the road network where there is a positive impact on fuel consumption.	1				5		
Promoting the use of innovation and technology to investigate and manage road network impacts such as hazardous road conditions, severe weather impacts, bushfires, travel incidents and congestion.	1						
Tracking and reporting on the average CO <sub>2</sub> emissions <sup>5</sup> from fleet vehicles up to 3.5 tonnes.	1						7
Implementing the NSW Electric and Hybrid Vehicle Plan.		2				6	7

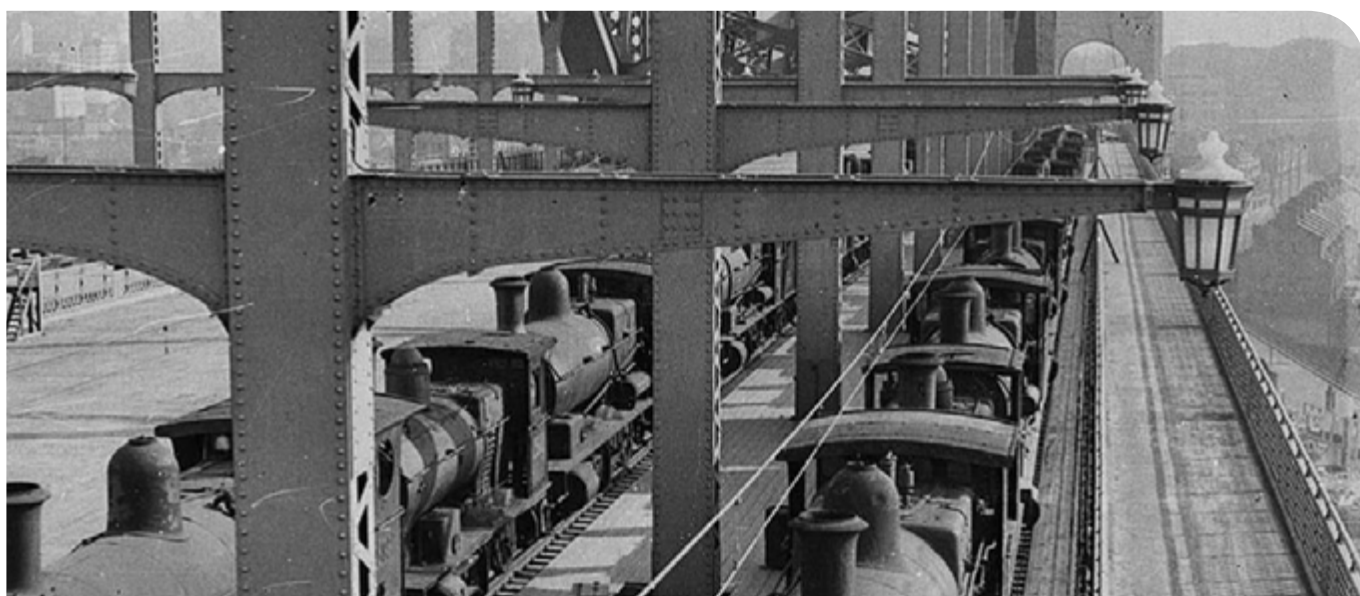
<sup>1,4</sup> The NSW Government has set solar photovoltaic targets (whole of government) of 25,000 MWh/a by 2021 and 55,000 MWh/a by 2024.

<sup>2,3,5</sup> Sourced from Australian Government's *Green Vehicle Guide* rankings as CO<sub>2</sub> (g/km).

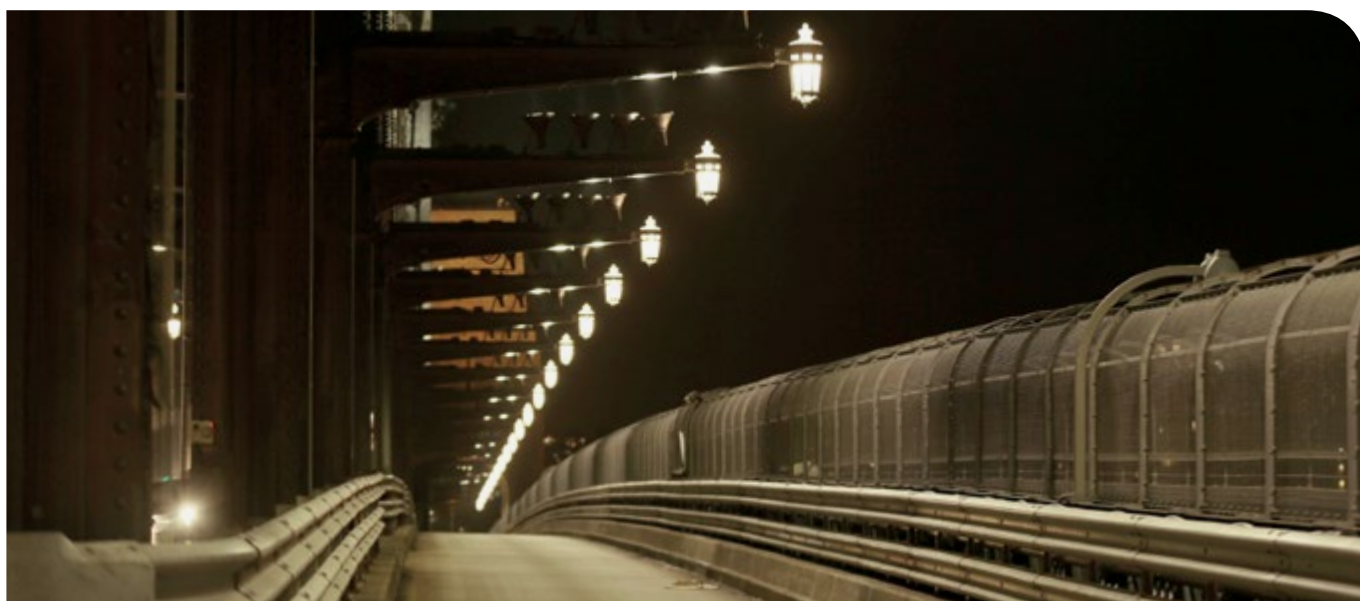
# Saving energy and restoring heritage on the Sydney Harbour Bridge

Roads and Maritime is installing 260 new energy efficient LED heritage-style light fittings on the Sydney Harbour Bridge. This will restore the Bridge's heritage values and contribute to Roads and Maritime target of installing LED lighting on roads throughout NSW. The new bronze and glass lanterns are replicas of those on the Bridge when it was opened in 1932.

Compared with conventional lighting (such as fluorescent, incandescent or halogen lamps) LED technology uses significantly less energy, has lower maintenance costs, and reduces work health and safety risks due to a reduction in the frequency of light globes and fittings needing to be replaced.



Original Bridge lanterns at the end of light arms circa 1932.



The new replica lanterns with LED lights are installed on original light arms. The light arms include LED lights within their frame.



# Climate change resilience

## Objective

- Design and construct transport infrastructure to be resilient or adaptable to climate change impacts.

The *NSW Climate Change Policy Framework* aims to make NSW more resilient to climate change. In addition to reducing carbon emissions through energy efficiency initiatives, the framework requires government agencies to embed climate change resilience and adaptation into decision-making for service delivery, infrastructure construction, purchasing and regulatory frameworks.

To reduce our exposure to climate change, Roads and Maritime assesses and manages the risk to our assets and services.

Our assessments cover a range of factors such as:

- likelihood of severe weather events
- sea level rise
- changes to flood risks and groundwater levels
- variations in temperature and rainfall
- bushfire risks
- loss of utilities and other interdependencies.

Once we understand the climate change risk, we embed resilience or adaptation options into the design and construction phase of projects, to safeguard infrastructure against environmental stresses.

Target	Climate change resilience targets
CC1	Assess climate change risks for all potentially affected projects and programs.
CC2	Address all identified climate change risks ranked as high or above during project planning.

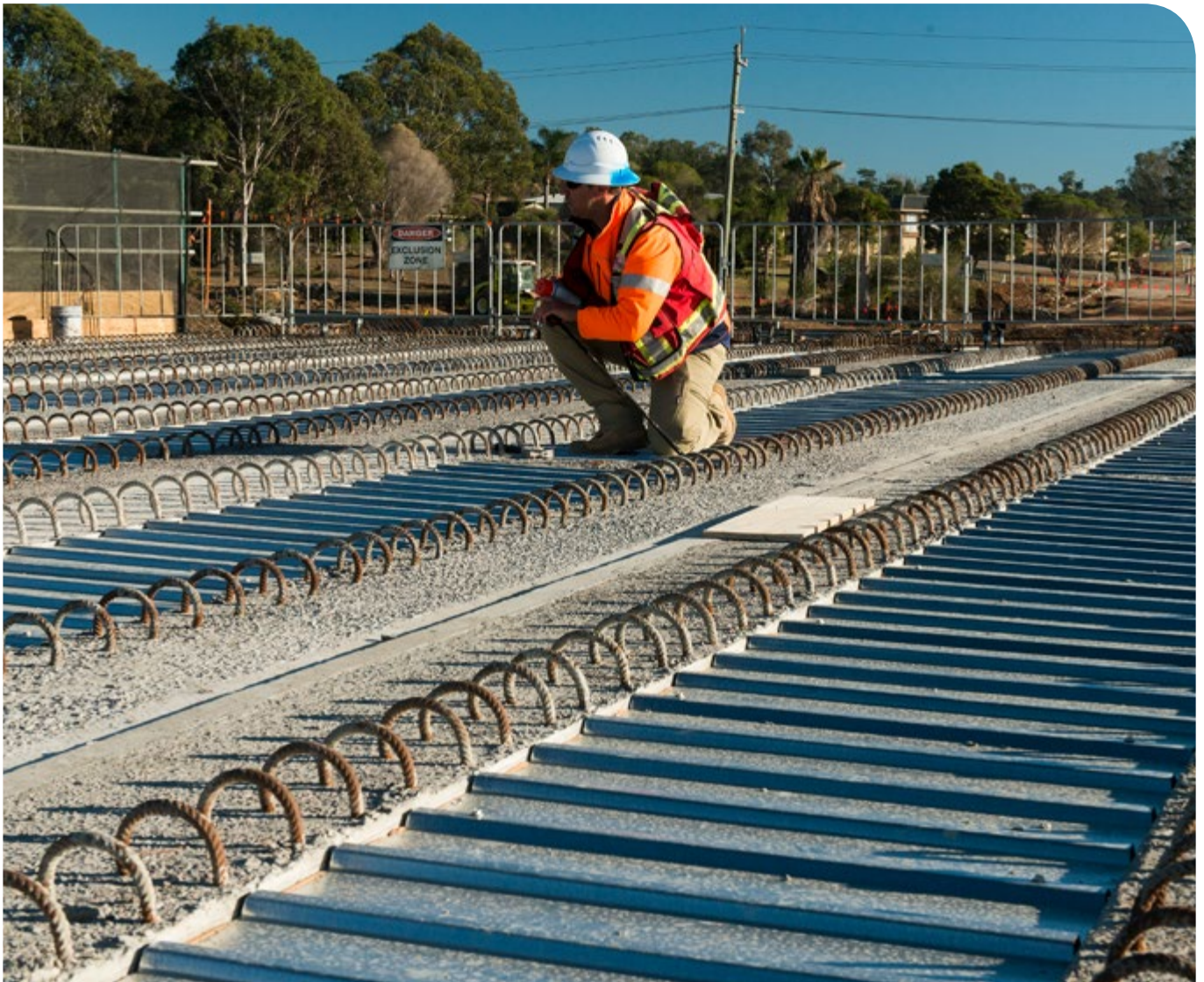
Key initiatives	Targets	
Reviewing climate change impacts and risks during the planning phase of potentially affected projects with a level of detail commensurate to the size of the project and the potential risk.	1	2
Designing infrastructure for the predicted future climate or designing for cost-effective adaptation in the future.	1	2
Consulting and partnering with key stakeholders to reduce vehicle carbon emissions and supporting new technologies to reduce road transport carbon emissions.	1	2
Minimising the carbon impacts associated with vegetation clearance by reducing project footprints where possible.	1	2
Maintaining our capacity to respond to significant events on our roads or waterways through emergency management plans to ensure our agency responds appropriately when required.	1	
Working within government agencies to identify interdependencies across transport, water, energy and telecommunications infrastructure during significant weather events.	1	2
Monitoring developments in climate modelling and ensure our approach is updated as new information is available.	1	
Ensuring our specifications for delivery, maintenance and operation of infrastructure consider suitable climate and weather-related constraints which include current best practice climate change predictions.	1	2



# Climate change impact on concrete

Researchers have shown that a changing climate – including from chronic factors like temperature and humidity and acute factors like extreme weather events – will impact on the condition of the concrete used in the structure of roads, bridges and other infrastructure.<sup>6</sup>

Roads and Maritime considers these impacts in the design and maintenance of assets to maximise their design life.



The Northern Road upgrade – Roads and Maritime considers the impacts of climate change in the design and construction of assets.

<sup>6</sup> CSIRO 2015, *Climate Impacts on Concrete Infrastructure*



## Objective

- Minimise the air quality impacts of road projects and support initiatives that aim to reduce transport-related air emissions.

Road transport remains a significant contributor to air pollution in NSW and particularly in the Greater Sydney Region. The projected growth in vehicle travel and road freight could, if vehicle emissions are not appropriately managed, exacerbate this issue over time. Strategies for reducing vehicle emissions for the broader transport sector include cleaner fuels, vehicles and fleets, reduced vehicle use and active transport (cycling and walking).

The Smart Roads program starts with the M4 Smart Motorway Project and uses technology to reduce congestion, which helps improve air quality. Features include traffic monitoring tools to enable improved and better-integrated network operation, and ramp meters to keep traffic moving smoothly and improve travel times. Roads and Maritime plays a key role in enabling the transport of freight to be as efficient as possible. It is critical that the road network links effectively with other freight transport modes.

The NSW Government is undertaking an unprecedented program to build a network of new motorways in Greater Sydney. The region will have one of the most extensive networks of motorway tunnels in the world once complete.

To manage vehicle emissions inside tunnels, Roads and Maritime operates ventilation systems. Designed using best practice engineering, the ventilation systems maintain high air quality standards for communities around the motorways and motorway users. We aim to ensure that new cleaner vehicle technologies are compatible with our network and regulations and we are proactive in responding to vehicle technology changes as they emerge. Our motorways projects also provide for active transport options such as cycleways and pedestrian facilities in their design.

Non-road diesel plant and equipment are also significant contributors to air pollution. Non-road diesel engines are not regulated in Australia and if they are not equipped with emission control systems they can generate significant air pollutants. The construction of roads involves significant use of large diesel-powered equipment and we actively work to reduce emissions from our construction sites by using equipment as efficiently as possible.

Roads and Maritime has developed an interactive web portal to inform the community about Sydney's air quality and our work in upholding our high air quality standards.

Target	Air quality targets
AQ1	Projects and operations will identify and apply best practice controls and initiatives for in-tunnel network and ambient air quality.
AQ2	Construction activities will identify and apply best practice air emissions controls.

Key initiatives	Targets	
Monitoring air emissions across our projects and operations.	1	2
Ensuring best practice air emission control methodologies are applied in the design, construction and operation of roads.	1	2
To optimise the design and management of the road network to smooth traffic flows and manage congestion with the aim of reducing travel times for vehicles using the network.	1	
Implementing Transport for NSW's <i>NSW Freight and Ports Strategy Plan 2018-2023</i> to improve freight movement productivity and reduce truck travel times.	1	
Ensuring our network and regulatory systems enable early adoption of new, cleaner vehicle technologies.	1	
Promoting teleworking and video conferencing and avoiding travel in peak periods through flexible working hours at Roads and Maritime.	1	
Monitoring developments in road related air pollution science to guide best practice engineering and analysis in the design, construction and operation of the road network.	1	2
Supporting the NSW Advisory Committee on Tunnel Air Quality to ensure the NSW Government has up-to-date advice on the potential impacts from the operation of road tunnels.	1	
Actively monitoring and minimising non-road diesel emissions from our activities.	1	2
Ensuring non-road diesel plant and equipment used in our activities comply with relevant EU or US EPA emissions standards.	1	2

## Reducing emissions from vehicles

Over the past three decades, the number of vehicles on Sydney's roads has increased, however a number of initiatives and technological developments have resulted in substantial reductions to vehicle emissions. The number of vehicles is expected to further increase as the population of Sydney continues to grow, however total emissions from motor vehicles are set to fall further over the next 10 years due to the turnover of vehicles resulting in older vehicles being continually replaced by cleaner new vehicles.



Vehicle emissions can be reduced by using vehicles with modern emissions controls, reducing travel time by removing congestion or using active transport.



# Resource use and waste management

## Objective

- Minimise the use of non-renewable resources and minimise the quantity of waste disposed to landfill.


In a world of limited resources we must all be as efficient as possible in our use of materials. The manufacture, transport, use and disposal of materials and products all potentially result in adverse environmental impacts. The result of inefficient use of resources is waste which can pollute air and water, contaminate land, and take up land for landfill. In NSW we have to be conscious of our water consumption because many parts of the State are drought prone.

The management of waste is an enormous task which requires careful planning to balance the impact on the environment and the cost effectiveness of the process. Roads and Maritime manages millions of tonnes of material on our

project sites each year. The construction and maintenance of roads involves substantial quantities of excavated spoil, road building materials and the removal of excess materials and wastes.

In road maintenance and construction, we already achieve 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. To continue to improve waste and resource management, we apply the waste management hierarchy to our activities.

## Waste management hierarchy

Priority	Management measure
 <b>Most preferred</b>	• Avoid: avoid the use of materials and conserve resources
	• Reuse: reuse materials (like for like reuse)
	• Recycle: recycle or reprocess materials
	• Waste to energy: recover energy from the waste product
	• Disposal: dispose of material to a landfill
<b>Least preferred</b>	

Implementing the waste hierarchy reduces the quantity of material entering landfills and helps to reduce carbon emissions, save water and energy and conserve virgin resources.



Target	Resource use and waste management targets <sup>7</sup>
RW1	100% beneficial reuse of virgin excavated natural material.
RW2	100% recovery of clean concrete for beneficial reuse.
RW3	100% recycling of clean reclaimed asphalt pavement.
RW4	Minimum of 10% cement replacement material (when locally available), measured by mass, used in concrete during construction.
RW5	Minimum of 10% recycled content (when locally available) by volume in road base and sub base.
RW6	Prior to disposal of waste or wastewater an assessment of viable reuse or recycling options must be carried out.

Key initiatives	Targets					
Monitoring and reporting on significant waste streams.	1	2	3	4	5	6
Ensuring that infrastructure design and construction planning considers how to minimise the generation of excess spoil	1					6
Identifying where there is potential to recover and reuse materials on site	1	2	3		5	6
Substituting non-renewable materials with recycled or reused materials where they are fit for purpose, cost effective and affordable.	1	2	3	4	5	6
Working with regulatory stakeholders to ensure environmentally sound opportunities to legally recycle or beneficially reuse waste materials are maximised.	1	2	3	4	5	6
Managing waste to minimise transport related risks and impacts by using local disposal facilities where feasible and appropriate.						6
Working with our supply chain to assess the feasibility of reusing key wastes, such as glass, in road construction to reduce our consumption of virgin materials.	1	2	3	4	5	6
Monitoring and reporting on potable and non-potable water use in areas where water scarcity occurs.						6
Maximising the use of non-potable water in preference to potable water where feasible.						6

## Using logs and root-balls for river restoration

Tree root-balls are a common waste product from clearing vegetation because they are too large to mulch. Consequently they take up valuable space in landfill. Seeking reuse opportunities, the Woolgoolga to Ballina Pacific Highway Upgrade project team worked with local regulatory and community stakeholders to develop a valuable solution. The logs and root-balls cleared from the highway upgrade were used by community groups and organisations to reduce bank erosion and restore aquatic habitat. The logs and root-balls were pinned to the river banks for stabilisation and placed in the stream to re-establish fish habitat areas.

<sup>7</sup> Targets exclude applications where a waste material or its associated supply chain is not fit for purpose, where reuse or recycling is not cost effective or would increase the project's environmental footprint.



Workers with root-balls recovered from the upgrade.



Oxley River with severe bank erosion.



Oxley River following bank rehabilitation.



# Pollution control

## Objective

- Minimise noise, water and land pollution from road and maritime construction, operation and maintenance activities.

Roads and Maritime aims to be an industry leader in the management of environmental risks and it is our policy to ensure activities are managed to achieve best practice, cost effective environmental performance. Avoiding environmental impacts or pollution is prioritised in the initial planning phases of our projects through careful selection of road corridors and construction methods. For example a tunnel avoids many of the direct impacts on communities that might result from a surface road.

Large project sites often require unpaved areas, the movement of significant volumes of materials and large machinery. Project teams have to manage stormwater run-off, equipment noise, dust, vehicle movements, storage of fuels and stockpiling of construction material. All of these aspects can potentially impact the surrounding environment or community. Road construction must consider the operational and growth requirements of the network and some activities may be required outside business hours.

Roads and Maritime complies with environmental statutory requirements, licenses, approvals and permits, and has rigorous processes to identify and minimise environmental risks. These processes also apply to our contractors. We seek to avoid impacts to land through land and waste management practices that prevent the creation of future legacy issues or exacerbating existing issues.

Road developments often encounter contaminated land from historical activities. Contaminated material or spoil must be appropriately managed to minimise human and environmental risks. Where land is to be retained by Roads and Maritime and preserved for road-related use, contaminated materials can be safely encapsulated or emplaced on site. Rigorous environmental and whole-of-

life assessments are carried out to confirm the suitability of the site. Management on site avoids the use of landfill and the need to transport contaminated material. Rigorous environmental and whole-of-life assessments are carried out to ensure a better environmental outcome is achieved.

Roads and Maritime recognises that noise from roads and our projects impact on surrounding communities and as a result we have established a *Noise Criteria Guideline* to guide our management of noise for road developments. In addition to engineering noise controls, where practicable, we also carry out a range of management measures including but not limited to:

- consulting with community
- timing noisy construction activities during daylight hours where possible
- providing respite periods
- providing prior notification to residents of noisy activities
- monitoring and checking noise and vibration levels are consistent with predictions.

On the existing road network, the Roads and Maritime Noise Abatement Program provides a mechanism to address high levels of operational noise.

Our maritime networks in Sydney Harbour, and the Parramatta and Lane Cove rivers are routinely cleaned by removing hazards to navigation, litter and waste up to the Mean High Water Mark. These activities aim to protect the environment and visual appeal of our waterways in addition to ensuring the safety of recreational and commercial users.

Target	Pollution control targets
PC1	100% of environmental incidents are reported and tracked in incident reporting systems.
PC2	100% of Category 1 (significant) incidents are self reported. <sup>8</sup>
PC3	Schedule and complete environmental compliance audits on 100% of sites that incur a formal penalty notice or financial penalty from a regulator.

Key initiatives	Targets		
Maintaining environmental management systems which ensure our construction, operational and maintenance activities have the smallest possible pollution impact, meet acceptable community standards and comply with all statutory requirements.	1	2	3
Implementing land and contamination management practices on Roads and Maritime landholdings that avoid creating or exacerbating long term legacy issues.	1	2	3
Managing pre-existing contamination to mitigate land and water pollution and to meet legal requirements.	1	2	3
Actively playing a role in reducing the potential impact of pollution caused by users of the road network and waterways through: <ul style="list-style-type: none"> <li>monitoring pollution from vehicles that use roads and from vessels using waterways</li> <li>managing impacts from accidents</li> <li>managing spills into our waterways.</li> </ul>	1		
Using the Roads and Maritime <i>Noise Criteria Guideline</i> across our activities.	1	2	3
Managing our noise impacts, where practical and reasonable, using the following prioritised approach: <ul style="list-style-type: none"> <li>Eliminating noise sources</li> <li>Using materials, construction methods and equipment specifications that reduce noise generation</li> <li>Using engineering noise control methods such as enclosures, acoustic sheds and noise walls to reduce construction and operational noise at or close to the source</li> <li>Implementing noise management measures where impacts are above our guideline levels.</li> </ul>	1	2	3
Proactively identifying and auditing sites with a high environmental compliance risk.	1	2	3
Fostering a proactive reporting culture that promotes transparency in managing and reporting incidents internally and with regulators.	1	2	3
Sharing learnings from significant environmental incidents within Roads and Maritime and with relevant contractors and industry partners.	1	2	3
Keeping our roads and waterways clean through litter and debris collection and removal.	1	2	

<sup>8</sup> A Category 1 incident is a significant environmental incident as defined in the Roads and Maritime *Environmental Incident Classification and Reporting Procedure 2018*.



## Recovery of debris from container vessel

On 1 June 2018 the Taiwanese container vessel YM Efficiency carrying 2252 containers reported the loss of 81 containers overboard, with an additional 59 containers damaged onboard during heavy weather. At the time, the ship was about 30 kilometres south-east of Newcastle.

Roads and Maritime led the clean-up response once the debris reached the shoreline and assisted to identify locations of the lost containers. Roads and Maritime is coordinating the termination phase of the clean-up. When finalised, this will involve checking levels of cleanliness and longer term arrangements for surveillance and the recovery of debris as it surfaces.



Roads and Maritime led the clean-up and collected more than 1000 cubic metres of debris.



# Biodiversity

## Objective

- Improve outcomes for biodiversity by avoiding, mitigating or offsetting the potential impacts of road and maritime projects on plants, animals and their environments.

Biodiversity is the variety of life forms, including plants and animals and the ecosystems in which they live. Roads and Maritime plays a key role in protecting biodiversity around our roads and waterways.

Road corridors cover about six per cent of the State and often contain important biodiversity that is rare in the surrounding landscape. Road corridors can contain remnant native vegetation, habitat for threatened plants and animals and areas which provide habitat connectivity.

Road construction, maintenance and operations can have a range of impacts on biodiversity including:

- loss of habitat through direct clearing of native vegetation leading to the break up of contiguous areas of habitat into smaller areas
- creating a barrier to the movement of animals from one side of the road to another
- direct impacts on threatened species and endangered ecological communities
- spreading weeds, pests and diseases.

Our *Biodiversity Management Guidelines* aim to avoid or minimise impacts as our highest priority. Where avoidance is not possible, we aim to mitigate the impacts. Biodiversity offset agreements can be used when residual impacts cannot be avoided.

Our projects apply a range of measures within the guidelines to address impacts including:

- road alignments avoiding sensitive areas
- re-establishment of native vegetation
- fauna underpasses and overpasses
- nest boxes.

Our initiatives to offset impacts on biodiversity include collaboration with the NSW Office of Environment and Heritage to place biodiversity agreements over Roads and Maritime land at six locations across NSW. The agreements help to offset the impact of road development on biodiversity.

Roads and Maritime proactively carries out detailed biodiversity reviews in the development phase of all relevant projects and activities.

Target	Biodiversity targets
BD1	100% of applicable projects will apply the Roads and Maritime <i>Biodiversity Management Guidelines</i> .
BD2	All connectivity and mitigation measures will be monitored for effectiveness post implementation.

Key initiatives	Targets	
Avoiding impacts on biodiversity through route selection, planning and design processes.	1	2
Minimising impacts by applying best practice approaches to unavoidable habitat loss (eg following pre-clearing processes, establishing exclusion zones and careful management of weeds and pathogens).	1	
Mitigating impacts on biodiversity by providing fauna connectivity where appropriate, and supplementing habitat where needed (eg targeting vegetation rehabilitation, installing nest boxes and reusing woody debris and bush rocks).	1	2
All projects identified as State significant infrastructure or requiring a review of environmental factors must review the need for biodiversity offsets in accordance with Roads and Maritime Biodiversity Offset Policy.	1	
Avoiding the spread of weeds, pests and diseases outside of our sites through appropriate management of mulch and vegetation wastes generated, reused or removed from our sites.	1	
Working with relevant universities, agencies, local councils and community groups to reduce impacts on biodiversity including fauna strike incidents during the design and operation of the road network.		2
Monitoring of connectivity and mitigation measures will be reported within a framework of continuous improvement.		2

## Relocation of microbats – Sportsmans Creek Bridge Project

A large breeding colony of the threatened Large-footed *Myotis* microbat was located in the Sportsmans Creek Timber Truss Bridge near Grafton. The biodiversity assessment concluded that, if unmitigated, the removal of the timber bridge would likely cause the extinction of the local microbat population. To look for and encourage new ways to minimise long term impacts of the project on the colony, Roads and Maritime consulted local microbat experts and the NSW Office of Environment and Heritage.

With the bridge earmarked for replacement and the need to protect the colony, bat roosting areas were designed into the new concrete bridge. Staged exclusion of the microbats from the old bridge encouraged the bats to move to the new bridge in February 2018. Early monitoring has shown the colony has migrated successfully to the new bridge.

The project received a letter of commendation from the Australasian Bat Society and support from the NSW Office of Environment and Heritage. The lessons learnt from this project will be incorporated into future Roads and Maritime projects involving bridge and culvert replacements.





Myotis microbat roosting in the new bridge.



Bat roosting area incorporated into new bridge.



The new Sportsmans Creek Bridge.





# Heritage – Aboriginal and non-Aboriginal

## Objective

- Manage and conserve cultural heritage according to its heritage significance and contribute to the awareness of the past.

Roads and Maritime recognises that Aboriginal and non-Aboriginal cultural heritage contributes to the social identity and sense of place for communities. It is an irreplaceable record of the human history of NSW, tracing how people have lived and shaped the natural environment for many generations.

We are the custodians of a large number of heritage assets, many of which relate to the historical development of the NSW road network. The history of many roads goes back to the early days of European settlement in NSW and many were built using convict labour.

Where the construction of new infrastructure has the potential to impact on the historic environment either directly or indirectly, Roads and Maritime prioritises avoiding impacts where possible. When addressing unavoidable impacts we aim to mitigate impacts on affected heritage values and to balance our heritage and cultural legacies and our activities.

Where our developments have the potential to impact Aboriginal cultural heritage we partner with the local Aboriginal community to address any issues and conduct Aboriginal cultural heritage assessments. Where Aboriginal cultural heritage is present we use the opportunity to collectively learn more about Australia's Aboriginal history.

Retaining or rebuilding heritage assets can deliver sustainable outcomes by extending operational life, reducing construction costs and the consumption of new materials and producing less waste. Where feasible, we use innovative solutions to renovate older assets to modern operational standards while protecting their heritage so they can be retained. For example, we have strengthened century-old timber truss bridges so they are able to safely accommodate modern road freight vehicles.

Target	Heritage Targets
HG1	All identified heritage assets must be assessed in early project planning stages to allow appropriate consideration of potential impacts and solutions.

Key initiatives	Targets
Avoiding or minimising impacts on heritage assets where feasible through route selection or by innovative designs.	1
New or revised conservation management plans prepared for State Heritage Register-listed items will recognise and address Roads and Maritime's heritage commitments.	1
Retaining or rebuilding heritage assets so they remain in service where they can reasonably meet network requirements.	1
Identifying and maintaining the heritage significance of assets in accordance with relevant legislation.	1
Preserving and developing our heritage knowledge and sharing this knowledge with the community and interested stakeholders.	1
New or revised studies of heritage asset types will address long term sustainability issues where relevant.	1

# Heritage features on timber truss bridge rehabilitation

Middle Falbrook Bridge, also known as Glennies Creek Bridge, is a timber truss bridge built in 1904. Given its heritage significance, location on the road network and use, Middle Falbrook Bridge was identified for rehabilitation to meet current vehicle loads, while preserving its heritage features.

The work involved replacing and strengthening all bridge components above the piers including the timber trusses, deck, traffic barriers and approach spans. This ensured the bridge met current load standards and was capable of carrying a 42.5 tonne semi-trailer or equivalent without significantly affecting the timber trusses.

The bridge is one of 26 in the Roads and Maritime *Timber Truss Bridge Conservation Strategy*, which was developed in consultation with the Heritage Council of NSW. It was part of Roads and Maritime *Timber Truss Bridge Conservation Management Plan 2018* – endorsed by the Heritage Council of NSW – and guides all work on timber truss bridges.

The NSW Government funded the Middle Falbrook Bridge as part of its Bridges for the Bush program to improve road freight productivity in regional NSW and to reduce timber bridge maintenance costs by replacing or upgrading bridges.



Trusses were built off-site to reduce the risks associated with working at height above the waterway.



The upgraded Middle Falbrook Bridge retains its heritage.



# Liveable communities

## Objective

- Provide high quality urban design outcomes that contribute to the sustainability and liveability of communities in NSW.

Roads are an integral part of our cities and towns and their design and management contributes to the quality of the public domain, and the sense of place and identity for communities. It also provides a high quality journey for drivers, cyclists, pedestrians and other users.

Balancing these place and movement functions is an important part of Roads and Maritime's role, which contributes to Future Transport 2056.

Corridor studies are being carried out which identify the Place and Movement qualities of a road or street.

Major road projects such as motorway tunnels and highway bypasses are helping protect places overly dominated by movement. An example of this is the Berry bypass.

Whatever the place or movement role of the road or street the network should be designed and managed well, integrated with integrated with green infrastructure like parks and open spaces, urban bushland and waterways, and provide good aesthetics. Adopting urban design principles in planning, developing, constructing and managing road networks can help sustain a high quality of life for communities and help ensure towns are viable and liveable.

Well-designed and managed roads can:

- minimise physical separation of communities and help provide healthier active transport options
- provide roadside space for pedestrians and outdoor activities contributing to the liveability of an area
- provide a safe and secure environment for all road users

- reduce vandalism, provide long term durable products and reduce the need for additional work and consumption
- provide views and an experience of the natural and cultural landscape contributing to community wellbeing
- minimise noise and air quality issues
- provide shade and cooling through tree planting and maintenance. (A 10 per cent increase in tree cover provides at least a one degree Celsius reduction in the land surface temperature<sup>9</sup>)
- reduce watering and maintenance and support native wildlife by using native plants wherever they can.

Roads and Maritime has published guides to deliver best practice urban design such as the use of resources, sustainable materials, and how to provide safer active transport connections. The publications include *Beyond the Pavement* – urban design policy, procedures and design principles – and companion documents, the *Landscape Guideline*, *Bridge Aesthetics* and the *Noise Wall Design Guideline*.

<sup>9</sup> NSW Office of Environment and Heritage 2015 *Technical Guidelines for Urban Green Cover in NSW*, NSW Government, Sydney.



Target	Liveable communities targets
LC1	Meet the objectives of the Roads and Maritime Beyond the Pavement policy on all projects.
LC2	In the Greater Sydney Region and major regional cities, complete road development projects with no net loss of tree canopy cover. <sup>10</sup>

Key initiatives	Targets	
Applying the <i>Beyond the Pavement</i> policy to all Roads and Maritime infrastructure projects that have an appreciable impact on the built and natural environment and achieve the following outcomes: <ul style="list-style-type: none"> <li>road and maritime transport infrastructure fits sensitively with the built, natural, community and cultural environments in which it is situated in both urban and rural locations</li> <li>infrastructure planning and design contributes to the accessibility and connectivity of communities and a general permeability of movement through areas by all modes of movement, including walking and cycling and public transport.</li> </ul>	1	
In the Greater Sydney region, and major regional cities, managing tree coverage to support the Greater Sydney Commission's 40 per cent tree canopy cover target for our projects.	1	2

## Berry bypass improves liveability

The liveability of Berry in the Shoalhaven region was dramatically improved with the Princes Highway bypass. The bypass improved the environment, safety and ambience of the important tourist village for its thriving community.

The bypass included a grass noise mound to protect the town from noise and reduce the aesthetic impact of the bypass.

The bypass also improved travel times for the 16,000 motorists who use the highway every day.



The bypass has improved liveability in Berry town centre.

<sup>10</sup> Excludes areas subject to existing biodiversity offsetting requirements and the selection and positioning of trees must meet the requirements of the Roads and Maritime Landscape Guideline.





Princes Highway, Berry bypass.



# Sustainable procurement

## Objective

- Procure goods, services, materials and works for infrastructure development and maintenance projects that over their lifecycle deliver value for money and contribute to the environmental, social and economic wellbeing of the community.

Roads and Maritime purchases significant volumes of goods including office supplies, services, materials and works, and achieving sustainable procurement plays a key part in the execution of this strategy.

Sustainable procurement refers to procuring goods, services, work, and utilities in a way that achieves value for money on a whole-of-life basis considering the costs and benefits not only to an organisation, but also to society, the economy, and the environment.

Roads and Maritime follows the NSW Treasury Gateway Review System for construction, goods and services, property and accommodation procurement. Major projects greater than \$10 million, or those requested by Treasury, have sustainability as an evaluation criterion in this process.

Our procurement strategies are designed to ensure a fair, ethical, socially responsible and transparent outcome that provides value for money and manages risk appropriately. To drive sustainable outcomes, and continually improve our procurement processes, we have integrated sustainability considerations into the planning, sourcing and management phases of our procurement lifecycle.

A significant proportion of our procurement is made by our delivery partners rather than directly purchased. In tenders we set minimum standards for the sustainable design, construction, and delivery of transport infrastructure and services. This approach has the following benefits:

- the financial and non-financial aspects of purchasing decisions, including sustainability, inform our assessment of tenders

- businesses supported by this strategy are incentivised to create innovation, investment, supplier diversity and sustainable practices
- implementing socially responsible procurement practices assists people to access the same opportunities regardless of personal circumstances
- environmental impacts and risks are measured and considered across the life of the goods, services, materials and works and at any stage in their production, use or disposal
- procurement processes provide the opportunity to influence sustainable practices in our supply chain.

All WestConnex project stages to date have been given Infrastructure Sustainability Council of Australia project sustainability ratings of Excellent or Leading.

Socially responsible procurement is a strategic approach to meeting social and economic objectives which support overall sustainability outcomes. It involves using procurement processes and purchasing power to generate positive social and economic outcomes. Roads and Maritime promotes the use of small and medium-sized enterprises, Aboriginal businesses and Australian disability enterprises through its procurement strategies.

The Aboriginal Participation in Construction (APiC) policy is an initiative of the NSW Government Procurement Board to support greater participation by Aboriginal people in government construction projects across NSW. Roads and Maritime has supported Aboriginal participation through encouraging the employment of apprentices and trainees within our workforce and that of our delivery partners on targeted road projects and we are now adopting a wider industry focus through APiC.

Target	Sustainable procurement targets
SP1	All tendered procurement must include non-price selection criteria that assess relevant sustainability and social procurement measures.
SP2	We will not procure from suppliers known to be applying poor labour practices.
SP3	Where fit for purpose, 100 per cent of timber and timber products will be sourced from sustainably managed forests which have obtained Forest Management Certification. <sup>11</sup>

Key initiatives	Targets		
Ensure assessment criteria, and associated weightings, for tenders include relevant environmental and social responsibility outcomes.	1	2	3
Including sustainability performance criteria in our contracts to increase awareness in our supply chain.	1	2	3
Implementing the Aboriginal Participation in Construction Policy.	1		
Where possible, procuring from small and medium-sized enterprises Aboriginal businesses and Australian disability enterprises by including such requirements in procurement strategies and policies.	1		
Monitoring our supply chain to identify and address issues related to poor labour practices.	1	2	
Carry out periodic reviews of our procurement activities to measure and maintain sustainable procurement performance.	1	2	3
Supporting local suppliers to minimise haulage distances of construction materials when feasible.	1		

## Local workers gain skills and qualifications

Implementing the NSW Aboriginal Participation in Construction policy on the Pacific Highway upgrade increased Aboriginal participation to almost ten percent of the project's total workforce. More than half of the Aboriginal workforce has gained experience working on multiple sections of the highway and attained a certificate or qualification.



Employees and contractors gain on-the-job experience on major infrastructure projects.

<sup>11</sup> Certification from the Forest Stewardship Council, the Australian Forestry Standard or other equivalent standard.



# Corporate sustainability

## Objective

- Communicate our sustainability objectives to employees, contractors and other key stakeholders, and foster a culture which encourages innovative thinking to address sustainability challenges.

A focus on Corporate Sustainability can empower our workforce and garner support for the objectives in this strategy. We have more than 6000 employees and contractors. Our delivery partners and supply chain employ thousands more people to support our activities. It is critical that we lead by example, communicate our sustainability objectives and share our knowledge on best practices.

Showing our commitment and promoting innovation and technology solutions will be a key part in the success of this Strategy. We want sustainable thinking to be core part of the day-to-day work of our staff and all who are involved in supporting our activities.

We have introduced a range of information technology and office solutions that reduce employee travel, save time, and save resources. We are continuing to relocate employees to more efficient buildings or to upgrade our existing offices. Our office refurbishments include energy and water efficient appliances, more efficient lighting and recycling facilities. We have converted a number of major offices to activity-based working including our Milsons Point head office. Activity-based working encourages people to be flexible as it provides adaptable environments for various tasks, to collaborate and to use technology. The use of office space is maximised with areas including collaboration spaces, quiet rooms, small and large meeting rooms.

Information technology solutions allow our employees to efficiently share information

electronically instead of printing hard copies.

We operate a fleet of more than 1500 light vehicles to support the activities of the agency. Optimising the size and type of vehicles in our fleet is a key initial step in reducing our carbon emissions. Adding to our current fleet of hybrid vehicles we aim to progressively introduce plug-in electric vehicles as reasonably priced options become available.

Our external publications need to be accessible to a wide audience and, increasingly, electronic communications meet this need and can reduce paper consumption. Delivering information to the community and other stakeholders on our activities, our projects and our achievements in innovative ways will be our preferred method of communication.



Target	Corporate sustainability targets
CS1	All employees are to be provided with sustainability training at a level commensurate with their responsibilities by the end of 2020.
CS2	100 per cent of all paper purchased by Roads and Maritime to be high recycled content paper (50 per cent or more recycled content) by end of 2020.
CS3	Minimum NABERS Energy and Green Star standards ratings for new buildings or refurbished offices (>1000m <sup>2</sup> ) are to be 5 stars. <sup>12</sup>
CS4	Phase out purchase of single use kitchen items by end of 2020.

Key initiatives	Targets			
Ensuring offices purchased or leased are rated against the NABERS system prior to tenure and meet the NSW Government Resource Efficiency Policy requirements.			3	
Increasing year-on-year recovery and recycling rates of office waste including paper, recyclable containers and toner cartridges.			3	
Segregating waste bins to separate general waste from recyclables in all Roads and Maritime offices.		2	3	
Recycling excess IT equipment if feasible or using environmentally friendly disposal options.			3	
Establishing a paper recycling system in all Roads and Maritime offices.		2	3	
Purchasing office paper that has 50 per cent or more recycled content.		2	3	
Publishing exclusively electronic media versions of external and internal publications rather than printed copies where possible.		2	3	
Monitoring and maximising the utilisation rates of our light vehicle fleet.			3	
Increasing the number of hybrid and/or plug-in electric vehicles in our fleet and installing charging facilities to exceed the requirements of the NSW Electric and Hybrid Vehicle Plan.			3	
Investigating the use of alternative transport services with the aim of enabling a reduction in our light vehicle fleet if proven to be practical, safe and cost effective.			3	
Continuing to investigate options to further enhance remote or flexible working opportunities for employees with innovative technology solutions to reduce land and air travel.	1		3	
Introducing activity-based working to more offices to reduce commuting and to maximise the use of existing office space.			3	
Developing and implementing employee awareness initiatives to enhance sustainability knowledge within our workforce.	1	2		4
Promoting turning off lights, air conditioning and appliances when not in use.	1		3	
Establishing forums to share sustainability knowledge and best practices with our supply chain and contractors.	1		3	
Purchase of electric vehicles and charging infrastructure.			3	

<sup>12</sup> Refer to the NSW Government Resource Efficiency Policy for details on star ratings.

## Office designs improve sustainability

Refurbishments of the Roads and Maritime offices at Milsons Point, Parramatta, Rozelle, Wagga Wagga, Newcastle and the Central Coast were designed to meet the growing needs of the agency and achieve a National Australian Built Environment Rating System (NABERS) energy rating of 4.5 stars.

Environmental sustainability performance measures were designed into the refurbishments, including installation of energy and water efficient appliances, motion sensor LED lighting, and waste recycling systems. The refurbishment introduced activity-based working to the offices which reduces commuting and maximises the use of office space.



Roads and Maritime head office at Milsons Point - sustainability features were built into the design.

# Implementation

The strategy has been developed to foster innovation and ongoing improvement through 10 focus areas. Specific initiatives will be incorporated into projects, programs and business plans as follows:

- Individual projects will consider this strategy in their development but we recognise that other requirements may be needed to meet project-specific objectives or statutory approvals.
- Roads and Maritime will establish and maintain guidelines, standards and procedures to support the implementation of the strategy.
- To ensure economic sustainability, all initiatives in this strategy will be assessed under normal Roads and Maritime expenditure governance processes to ensure they present best value for money for the agency and the community.
- Initiatives will appropriately balance environmental, social and economic outcomes by considering relevant issues such as:
  - impact on the delivery of other organisational priorities
  - benefits to the community
  - managing projects in remote locations
  - work health and safety
  - impact on employees and external resources
  - impact on infrastructure delivery schedules.

## Measuring and reporting our progress

At a minimum, the environmental sustainability performance criteria and assessment applied to our projects will include:

- All projects must address the requirements of the Roads and Maritime *Technical Guide Sustainability in Infrastructure Design and Construction*, and relevant targets in this strategy.
- Projects declared as State significant infrastructure<sup>13</sup> must assess their sustainability performance using either a verified Infrastructure Sustainability Council of Australia Design and As-Built Rating or an equivalent methodology.
- Roads and Maritime will continue to investigate options for sustainability performance assessment suitable for the size, risk and complexity of our projects.
- Roads and Maritime will collate data and provide ongoing reports on progress in achieving our environmental sustainability objectives through:
  - inclusion of sustainability performance information in the Roads and Maritime Services annual report
  - annual reporting to meet NSW Government Resource Efficiency Policy requirements
  - showcasing good sustainability outcomes
  - sharing sustainability learnings in the transport sector where appropriate
  - using innovative technology to improve access to our environmental and sustainability information for the community and stakeholders.

<sup>13</sup> As per the *Environmental Planning and Assessment Act 1979 (NSW)*

# Objectives of strategic and regulatory drivers

## Appendix 1

Drivers	Objectives
<b>Key legislation</b>	
<b><i>Environmental Planning and Assessment Act 1979 (NSW)</i></b>	<p>The Act encourages ecological sustainable development and the effective integration of economic and environmental considerations into decision-making processes. There are four main principles supporting the achievement of ecological sustainable development:</p> <ul style="list-style-type: none"> <li>• precautionary principle</li> <li>• intergenerational equity</li> <li>• conservation of biological diversity and ecological integrity</li> <li>• improved valuation and pricing of environmental resources.</li> </ul>
<b><i>Transport Administration Act 1988 (NSW)</i></b>	<p>The Act sets a common objective and service delivery priority for transport agencies to promote delivery of transport services in an environmentally sustainable manner.</p>
<b><i>Protection of the Environment Operations Act 1997 (NSW)</i></b>	<p>The Act is the key piece of environment protection legislation administered by the NSW Environment Protection Authority and applies to Roads and Maritime's activities and projects.</p>
<b>Roads and Maritime Services' plans and policies</b>	
<b><i>Roads and Maritime Services Corporate Plan 2019-2022</i></b>	<p>The corporate plan includes six strategic priorities and initiatives to support these priorities. Our priorities are:</p> <ul style="list-style-type: none"> <li>• increase customer value</li> <li>• get more out of the network</li> <li>• keep safety at the heart</li> <li>• respect our community and the environment</li> <li>• deliver the Government's program</li> <li>• partner to improve services</li> </ul>
<b><i>Roads and Maritime Services 2016 Environment Policy Statement</i></b>	<p>The statement commits Roads and Maritime Services to undertaking its activities in a safe and environmentally responsible manner while effectively managing any risks that may lead to an impact on the environment. Our benchmark is best practice, cost-effective environmental performance for our road and maritime network.</p>
<b><i>Roads and Maritime guidelines and technical specifications</i></b>	<p>A range of guiding documents that support road operations, maintenance, design and construction.</p>
<b>Other plans, policies and legislation</b>	
<b><i>Heritage Act 1977 (NSW)</i></b>	<p>The Act is intended to:</p> <ul style="list-style-type: none"> <li>• promote understanding and conservation of the State's heritage</li> <li>• managing items of heritage significance</li> <li>• protect items pending an assessment of their State heritage significance</li> <li>• encourage the adaptive reuse of heritage items</li> <li>• conserve items of State heritage significance</li> </ul>
<b><i>Biodiversity Conservation Act 2016 (NSW)</i></b>	<p>The Act is intended to:</p> <ul style="list-style-type: none"> <li>• conserve biological diversity</li> <li>• promote ecologically sustainable development</li> <li>• prevent the extinction and promote the recovery of threatened species and ecological communities</li> <li>• protect habitat</li> <li>• ensure that the impacts on threatened species and ecological communities is properly assessed</li> </ul>



Drivers	Objectives
<b>NSW Climate Change Policy Framework 2016</b>	<p>The aim of the framework is to maximise the economic, social and environmental wellbeing of NSW in the context of a changing climate, current and emerging international and national policy settings, and actions to address climate change. It has the aspirational long-term objectives of:</p> <ul style="list-style-type: none"> <li>• achieving net-zero emissions by 2050</li> <li>• NSW is resilient to a changing climate</li> </ul>
<b>Greater Sydney Commission 2018 The Greater Sydney Region Plan A Metropolis of Three Cities</b>	<p>The Greater Sydney Region Plan:</p> <ul style="list-style-type: none"> <li>• sets a vision to 2056 and establishes a 20-year plan to manage growth and change for Greater Sydney in the context of social, economic and environmental matters</li> <li>• informs district and local plans and the assessment of planning proposals</li> <li>• assists infrastructure agencies to plan and deliver for growth and change and to align their infrastructure plans to place-based outcomes</li> <li>• informs the private sector and the wider community of the growth management and infrastructure investment intentions of government</li> </ul>
<b>Infrastructure NSW Gateway Review Process</b>	<p>Sustainability indicators form a key component of the Gateway Review Process. The review is a NSW Government process that assesses the progress of projects against a range of criteria (including sustainability) to inform the procurement process.</p>
<b>NSW Treasury Gateway Review System</b>	<p>Gateway Review System assesses the progress of major government recurrent projects. NSW Treasury is responsible for the State's overall gateway policy.</p>
<b>Future Transport 2056</b>	<p>Transport for NSW's strategy sets the vision, directions and outcomes framework for customer mobility in NSW, which will guide transport investment. It includes a suite of strategies and plans for transport developed in concert with the Greater Sydney Region Plan A Metropolis of Three Cities, the NSW State Infrastructure Strategy 2018-2038, and the Department of Planning and Environment's regional plans, to provide an integrated vision for the State.</p>
<b>Transport Environment and Sustainability Policy Framework</b>	<p>The framework establishes a collective and coordinated approach to deliver the NSW Government's environmental and sustainability agenda across the Transport cluster. It includes objectives, targets, measures and action plans to deliver positive environmental outcomes.</p>
<b>NSW Government Resource Efficiency Policy 2019</b>	<p>The policy aims to drive resource efficiency with a focus on energy, water and waste, and reducing harmful air emissions.</p> <p>The policy aims to ensure NSW Government agencies:</p> <ul style="list-style-type: none"> <li>• meet the challenge of rising costs for energy, water, clean air and waste management</li> <li>• use purchasing power to drive down the cost of resource-efficient technologies and services</li> <li>• show leadership by incorporating resource efficiency in decision-making.</li> </ul> <p>The policy includes measures, targets and minimum standards to drive resource efficiency.</p>
<b>NSW Waste Avoidance and Resource Recovery Strategy 2014-21</b>	<p>The NSW Environment Protection Authority prepares a new waste avoidance and resource recovery strategy every five years. The key areas identified in the strategy support investment in much-needed infrastructure, encourage innovation and improve recycling. They also help develop new markets for recycled materials and reduce litter and illegal dumping.</p>
<b>Aboriginal Participation in Construction Policy 2015</b>	<p>The policy aims to "increase the employment and education opportunities for Aboriginal people within the construction industry" by setting a "targeted project spend" to be directed to Aboriginal-related employment and education activities, procurement of goods or services from recognised Aboriginal businesses or other programs.</p>
<b>Transport for NSW 2018 NSW Freight and Ports Plan 2018-2023</b>	<p>The plan sets the NSW Government's priorities for the sector over the next five years. It is a supporting plan to <i>Future Transport 2056</i> and is focused on achieving five key objectives: economic growth; efficiency, connectivity and access; capacity; safety; and sustainability.</p>
<b>Transport for NSW 2019 NSW Electric and Hybrid Vehicle Plan</b>	<p>The plan supports the transformation of transport through technology and provides a clear direction to guide government and industry actions on electric vehicles. It is focussed on three priority areas: vehicle availability; charging points; and customer information.</p>



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13 22 13



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March 2019

RMS.19.1182

ISBN: 978-1-925891-19-5