



Sustainability
Annual Report
2021

**Towards a
sustainable
future**



First Nations Acknowledgement

We acknowledge the First Peoples and Traditional Custodians of the land we now call Victoria.

We recognise and respect their continuing connection to land, water and community, and pay respect to Elders past, present and emerging.

We acknowledge that this land was and always will be Aboriginal land.



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A portrait of a middle-aged man with short brown hair, wearing a dark grey suit jacket, a light blue striped shirt, and a blue patterned tie. He is looking directly at the camera with a slight smile. The background is a solid grey color.

Foreword

The three pillars of Rail Projects Victoria's Sustainability Policy are the environmental, social and economic legacies of our projects. While the COVID-19 pandemic provided another year of challenges in 2021, our project teams continued working to ensure we deliver our projects in a way that will connect communities in the healthiest, most sustainable way possible.

Over the past year we partnered with our construction contractors to maintain a high level of waste reduction and material recycling, a low level of water consumption, efficient use of energy, and conservation of ecology and vegetation across our work sites. We also worked to remain at the forefront of innovation, implementing several new technologies to reduce the environmental impact of our projects.

Drawing upon lessons learned from last year, our project teams continued to adapt to the social and practical constraints of the pandemic. Our stakeholder engagement and education programs were moved into the digital realm, and our project teams kept working towards targeted completion dates despite a remote working environment. We continued to uphold our commitment to cultural heritage preservation and continued several existing initiatives such as the Metro Tunnel Creative Program, to give back to communities affected by our works.

Our projects have continued to aid Victoria's economic recovery by creating jobs and supporting local businesses near our work sites. With several major construction projects currently underway, and more on the horizon, RPV and our contractors are training the next generation of rail infrastructure and construction professionals – with hundreds of apprentices, cadets and graduates gaining valuable experience through the delivery of our projects.

RPV's Sustainability Annual Report 2021 allows us to reflect on our achievements over the past year, as we made great progress on our projects in the face of ongoing uncertainties, while remaining committed to our sustainability principles.



Evan Tattersall
Chief Executive Officer
Rail Projects Victoria

Introduction

About Rail Projects Victoria

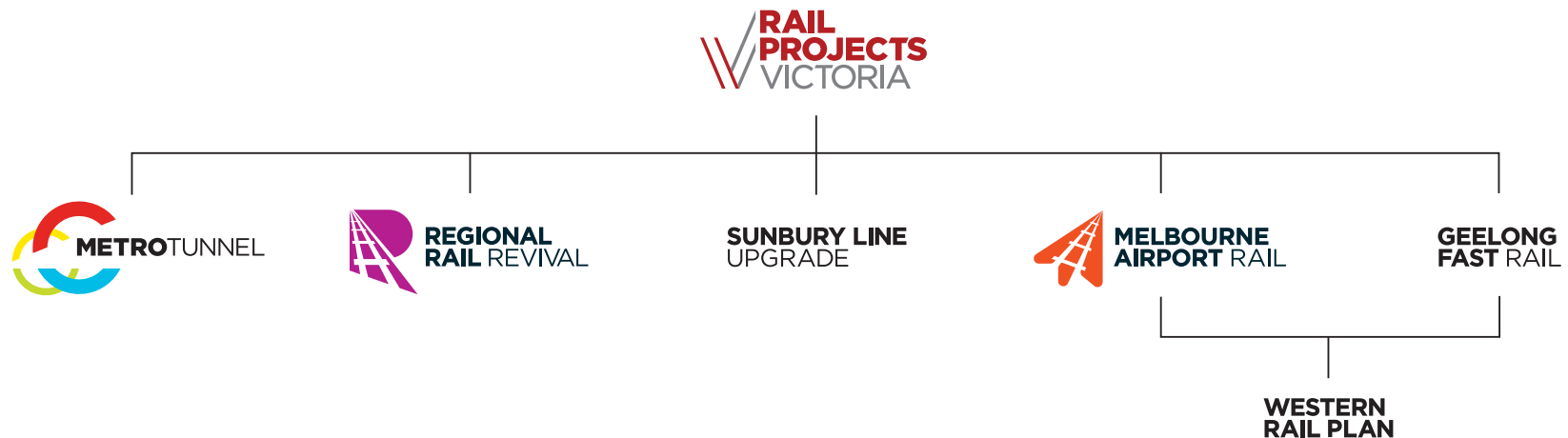
Rail Projects Victoria (RPV) is the dedicated project team within the Major Transport Infrastructure Authority responsible for the delivery of a number of rail infrastructure projects.

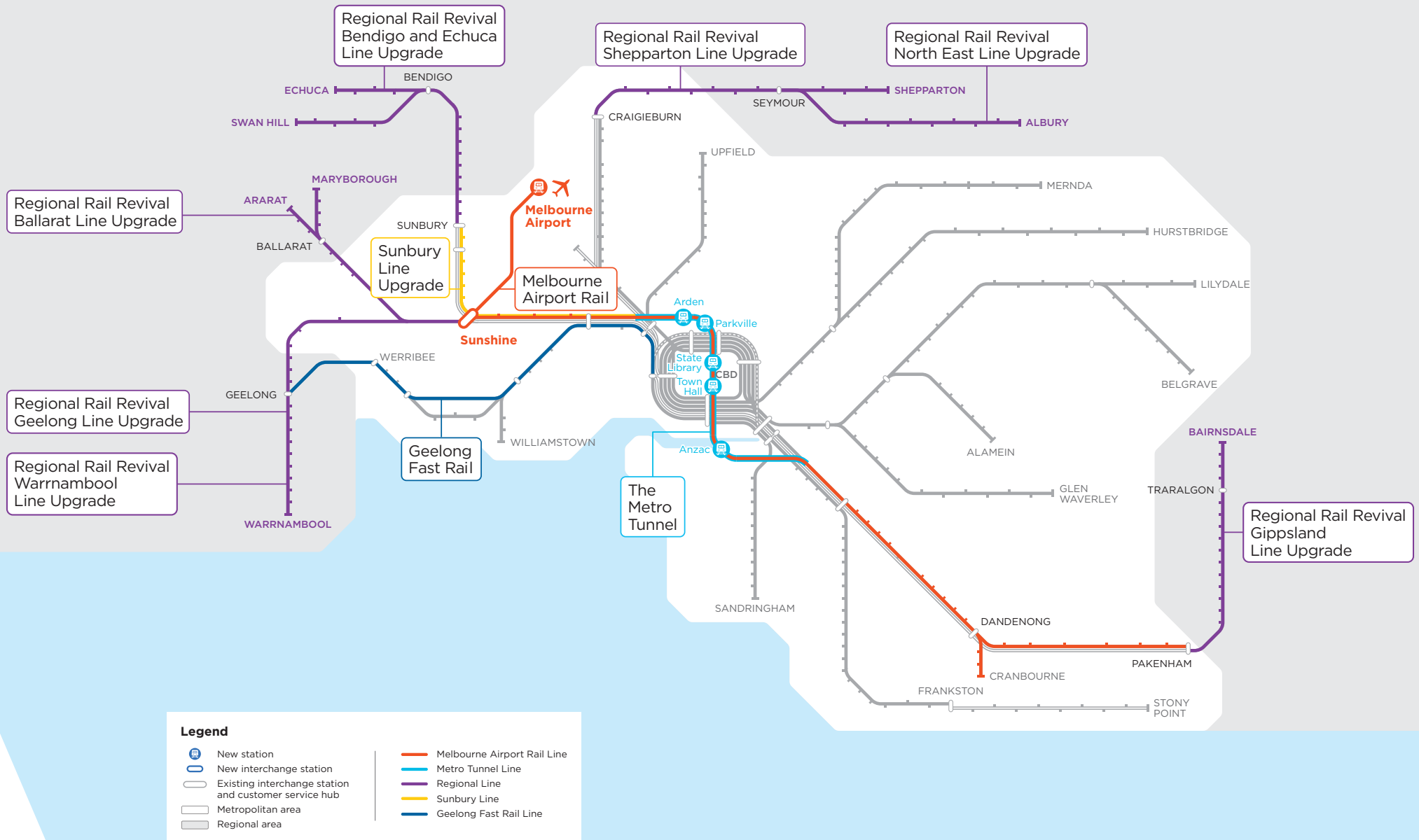
RPV is currently delivering Victoria's largest ever rail infrastructure pipeline, with more than \$30 billion invested in metropolitan and regional rail projects including the

Metro Tunnel and Sunbury Line Upgrade, the Regional Rail Revival, Melbourne Airport Rail and Geelong Fast Rail.

For each of these projects, RPV is responsible for the planning and development of project reference designs, site investigations, stakeholder engagement, planning approvals and procurement, construction delivery and project commissioning.

We have assembled a skilled team of highly experienced professionals from across the public and private sectors to ensure the objectives of our projects are realised for the Victorian community.





Projects in delivery



**REGIONAL
RAIL
REVIVAL**



New pedestrian overpass at Waurin Ponds Station.



SUNBURY LINE UPGRADE

Metro Tunnel Project and Sunbury Line Upgrade

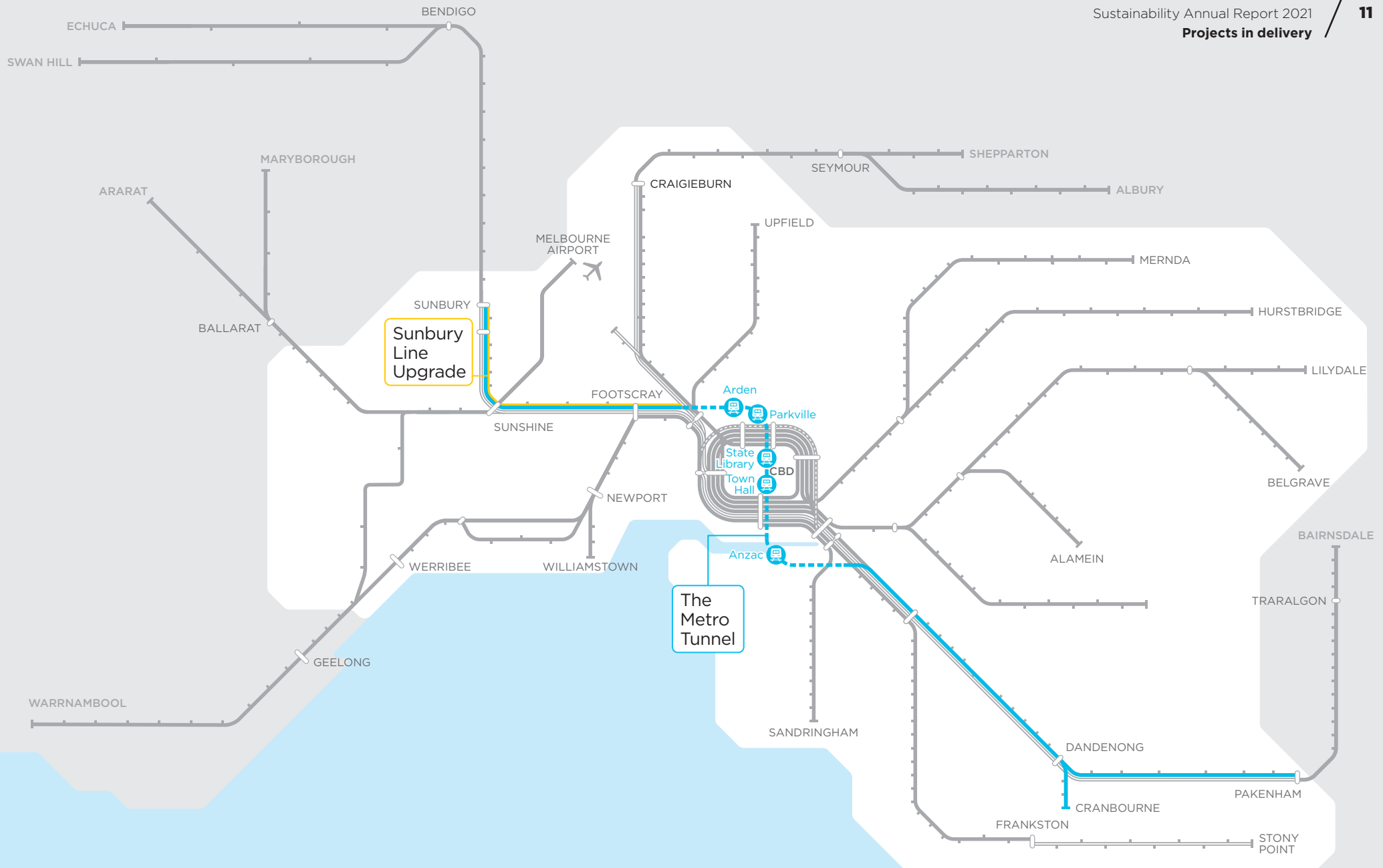
Wurundjeri, Bunurong

The Metro Tunnel will create a new end-to-end rail line from Sunbury in the west, to Cranbourne/Pakenham in the south east, with high-capacity trains and five new underground stations. The network capacity created by the project will enable more than half a million additional peak-hour passengers per week across Melbourne's train network.

Several improvements are needed on the Sunbury Line to enable more modern trains to run on the line and to take advantage of the extra capacity on the rail network. The Sunbury Line Upgrade will see various upgrades within the rail corridor extending from Sunbury to Footscray. These upgrades will ensure more modern trains can reliably run all the way from Cranbourne and Pakenham to Sunbury, linked through the CBD via the Metro Tunnel.

Throughout 2021, construction has continued across several packages of work: Tunnels and Stations, Rail Infrastructure and Rail Systems¹. The Metro Tunnel Project is on track to be completed by 2025.

1. In 2022, the RIA and RSA integrated to form the Rail Network Alliance. The Rail Network Alliance comprise John Holland, CPB Contractors, AECOM, Alstom, RPV and Metro Trains.





Overview

The Regional Rail Revival program, which is a joint initiative of the Victorian and Australian governments, is upgrading every regional passenger train line in Victoria, and the Murray Basin Freight Network. Projects underway in 2021 with reportable sustainability achievements were the Gippsland Line Upgrade, the Shepparton Line Upgrade and the Warrnambool Line Upgrade.

Shepparton Line Upgrade

*Wurundjeri, Taungurung,
Yorta Yorta*

The Shepparton Line Upgrade will deliver more frequent and reliable services, and will allow modern VLocity trains to travel to and from Shepparton for the first time.

Stage 1 of the project enabled 10 additional weekly services on the Shepparton Line. Works on Stage 2 of the project continued throughout 2021, while Stage 3 works have commenced.

Stage 2 is targeted for completion in late 2022, and Stage 3 in late 2023.

Gippsland Line Upgrade

Wurundjeri, Bunurong, Gunaikurnai

The Gippsland Line Upgrade will deliver more frequent and reliable train services to the growing communities of Gippsland and will create 500 jobs in the region.

The project will enable much-needed extra services between the peaks from Traralgon to Melbourne, as track duplication, a crossing loop extension and second platforms at stations will provide more opportunities for trains to pass each other.

Warrnambool Line Upgrade

Wadawurrung, Eastern Maar

The Warrnambool Line Upgrade will deliver a fifth weekday return service between Warrnambool and Melbourne, boost safety and reliability for train passengers and motorists and enable VLocity trains to travel on the line for the first time.

Stage 1 of the project includes signalling upgrades between Waurnd Ponds and Warrnambool and a new crossing loop at Boorcan, with Stage 2 to deliver train detection technology upgrades at more than

50 level crossings and an upgrade to stabling at Warrnambool Station to accommodate VLocity trains.

Construction progressed on Stage 1 of the project through 2021 and is targeted for completion at the end of 2022. Stage 2 of the Warrnambool Line Upgrade is scheduled for completion in late 2023.

Waurnd Ponds Station upgrade

Wadawurrung

The Waurnd Ponds Station upgrade is part of the staged upgrades along the Geelong Line. The project will deliver a new platform and extra track at Waurnd Ponds Station, allowing trains to pass each other in this section and enabling more Geelong services to be extended to and from Waurnd Ponds. The project also includes new and upgraded car parking and an accessible overpass linking both platforms.

Major works at Waurnd Ponds Station were completed at the end of 2021, with the new platform, track and overpass to be commissioned and opened to the public in mid-2022.




Sustainability at Rail Projects Victoria

RPV sustainability vision

“Through our delivery of major projects we’re committed to connecting communities in the healthiest, most sustainable way possible. We’ll help to ensure a lasting legacy for present and future generations for a more liveable Victoria – environmentally, socially and economically.”





Rail Projects Victoria is committed to delivering sustainable infrastructure that benefits communities and the environment over the long term. In 2021, Rail Projects Victoria continued to drive outcomes across three pillars of sustainability. This report showcases some of the many achievements and outcomes across these three pillars.

Environment

Rail Projects Victoria aims to minimise the environmental impacts of our projects and pursue innovative opportunities to reduce harm and maximise benefits. In order to achieve these goals, we focus on management of:

- Energy efficiency
- Materials and waste
- Water consumption
- Ecology and vegetation
- Climate change resilience.

Social


Rail Projects Victoria aims to minimise and manage potential impacts of our projects on local communities and identify opportunities to work with the community to contribute positively to the social fabric in the areas we work in. We strive to achieve these through:

- Cultural Heritage
- Education Programs.

Economic

Rail Projects Victoria aims to contribute to a resilient and prosperous economy that offers opportunities for all. Our initiatives include:

- Employment Programs
 - Social Procurement.
- 



Rail Projects Victoria's sustainability outcomes are guided and supported by internal frameworks, processes and policies which sit within the broader State legislative, policy and regulatory context.

Sustainability governance

Internal processes

Sustainability Policy

The RPV Sustainability Policy applies to all projects we deliver, outlining the following vision for our projects:

Through our delivery of major projects, we're committed to connecting communities in the healthiest, most sustainable way possible. We'll help to ensure a lasting legacy for present and future generations for a more liveable Victoria – environmentally, socially and economically.

To achieve this vision, RPV is committed to:

- Optimising the design of our projects to ensure they are delivered to operate sustainably
- Managing resources efficiently through embedding energy, water and material saving initiatives into the design, construction and operation of the projects
- Avoiding, minimising and offsetting harm to the environment and the loss of biodiversity
- Protecting and conserving the natural environment
- Preparing for the challenges presented by climate change.

The vision and objectives in the Sustainability Policy are directly managed by the Sustainability Team, while interfacing aspects such as environmental compliance, social procurement and safety are managed by other teams across Rail Projects Victoria. These disciplines are guided by their own policies and frameworks, with the Sustainability Team playing a supporting role as appropriate.

Sustainability Framework

We implement our Sustainability Policy by developing sustainability frameworks and strategies for our programs and projects.

RPV's Sustainability Framework identifies five focus areas:

- Energy
- Materials
- Water management
- Liveability and legacy
- Climate change resilience.

Organisational sustainability commitments are translated into project specific actions, objectives and targets, supported by sustainability management plans.

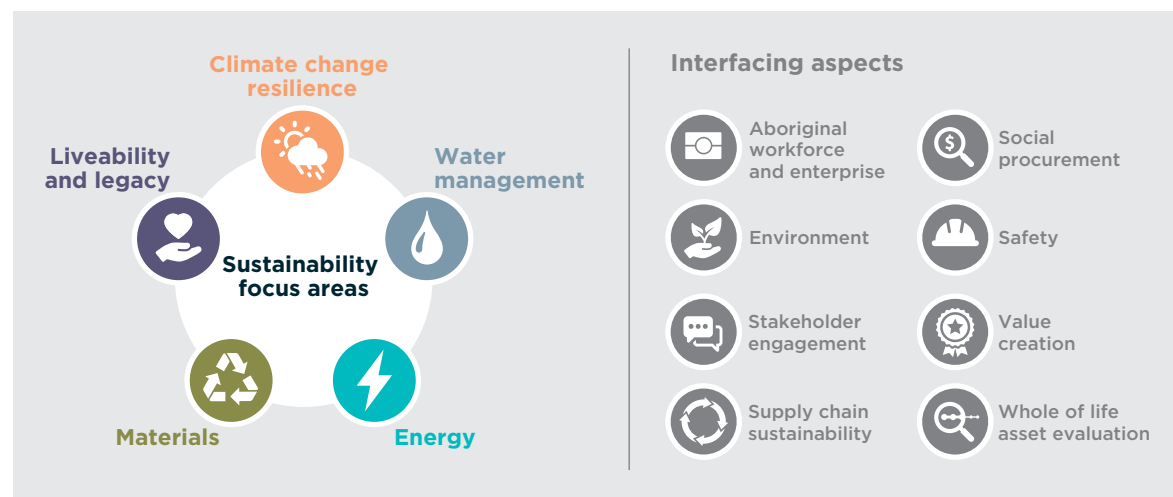
These plans articulate the processes for working with delivery partners to ensure we achieve our sustainability requirements.

Monitoring performance

RPV monitors the sustainability performance of its projects throughout the delivery phase.

This monitoring program includes:

- Collecting and reviewing project sustainability performance information monthly
- Externally auditing the projects' sustainability programs regularly to provide assurance that our sustainability requirements are being met.



External influences

The Rail Projects Victoria sustainability vision sits within a legislative, policy and regulatory context which includes the Transport Integration Act 2010, Climate Change Act 2017 and Victorian Government Recycled First Policy. This context helps frame and guide the integration of sustainability across our projects.

Transport Integration Act 2010

The Transport Integration Act 2010 requires transport agencies to manage the transport system in a way that actively contributes to environmental sustainability. This includes minimising transport-related emissions, promoting less harmful forms of transport and improving the environmental performance and energy efficiency of all transport modes.

Victoria's Climate Change Strategy 2021

Released in 2021, Victoria's Climate Change Strategy (DELWP, 2021) is a roadmap to net-zero emissions and a climate resilient Victoria by 2050. The Government has set ambitious but achievable targets to reduce the state's greenhouse gas emissions from 2005 levels by 28-33% by 2025 and 45-50% by 2030.

Climate Change Act 2017

Under Victoria's Climate Change Act 2017, Victoria has set emission reduction targets of net-zero by 2050. It requires five-year interim emission reduction targets to be set to ensure Victoria tracks toward net-zero.

The current target (2021-2025) is for emissions to be 28-33% below 2005 levels by 2025. For 2026-2030, emissions should be 45-50% below 2005 levels. The transport sector plays a significant role in achieving the net-zero target.

As the infrastructure being built by Rail Projects Victoria will operate beyond 2050, it needs to remain viable in more extreme

conditions. Fortunately, as per Victoria's Climate Change Strategy which covers all Victorian Government operations, every dollar spent on adaptation now can avoid future costs up to six times higher than the original outlay.

Recycled First Policy

The implementation of Victoria's Recycled First Policy commits the market to adopt recycled materials and consider the entire lifecycle of materials used within construction projects. Moving to a circular economy will provide long-term economic, social and environmental benefits for Victoria.

Other relevant driving policies, frameworks and legislation

- The Environment Protection Act 2017 objectives of reducing risk of harm from industry and community activities to human health and the environment and risk of harm from pollution or waste
- General Environmental Duty (GED) principles including managing risks associated with business activities that produce noise, odour or runoff to stormwater and management of waste
- The Victorian Social Procurement Framework principles including supporting direct and indirect purchases of goods, services and construction from Victorian social enterprises, Victorian Aboriginal Businesses and other social benefit suppliers.



Vegetation works at Kensington

Environment

Objective:

Rail Projects Victoria aims to minimise the environmental impacts of our projects and pursue innovative opportunities to reduce harm and maximise benefits.





Materials

Metro Tunnel: Tunnels and Stations

- 100% (91,401 tonnes) of steel on the project is certified by the Australasian Certification Authority for Reinforcing Steel
- 100% (2,884,616m³) of uncontaminated soil diverted for reuse
- 90.5% (1,029,737m³) of construction waste diverted from landfill
- 69.2% (3,116m³) of office waste diverted from landfill
- PPE glove washing and reuse 3-month trial at State Library Station to collect, decontaminate and reuse. It is anticipated 1 in every 2 pairs of gloves will be fit for reuse.

Metro Tunnel: Rail Infrastructure Alliance

- 3,507m³ inert and non-hazardous waste recycled
- 77.3% of construction waste diverted from landfill
- 911m³ office waste recycled
- Portland Cement reduction of 42.7% – saving approximately 13,649 tonnes of embodied carbon emissions.

Metro Tunnel: Rail Systems Alliance

- 72.5% of construction waste (10,211 tonnes) diverted from landfill
- 42.7% (16.74 tonnes) of office waste diverted from landfill
- Portland Cement reduction of 47%
- 100% of steel used at the Sunshine Signalling Control Centre is certified by the Australasian Certification Authority for Reinforcing Steel.

Waurin Ponds Station upgrade

- 3,540.38 tonnes of waste recycled, including concrete, asphalt (as Reclaimed Asphalt Pavement), ballast, metal, plastic conduits and soil (fill)
- 13,559 tonnes of recycled aggregate have been used on the project
- 312.92 tonnes of recycled sand have been used on the project
- 114.6m³ of recycled crushed concrete has been used on the project.

Shepparton Line Upgrade

- 26,045m³ (100%) of topsoil and spoil have been diverted from landfill
- 3,193.18m³ (92%) of inert waste has been diverted from landfill
- 87.03m³ office waste (52%) has been diverted from landfill
- Portland Cement reduction of 29% – saving 379 tonnes of embodied carbon emissions
- 776 tonnes of steel used on the project have been certified by the Australasian Certification Authority for Reinforcing Steel
- 5,000 tonnes of ballast have been reused on the project
- 5.4 tonnes of rail have been reused on the project
- 27.3 tonnes of concrete sleepers have been reused on the project.



Recycled composite dunnage on the Metro Tunnel Project - Tunnels and Stations

Dunnage is a form of packaging typically made from concrete or wood that aids in protecting and accommodating a load in both transit and storage. At the Metro Tunnel project's precast yard, 500 units of recycled composite dunnage have been used for the storage of the project's trackform elements. The dunnage is made from a 50-50 composite mix of post-industrial timber and post-consumer plastics.

The plastic used in this product has been collected from kerbside waste including food containers, milk bottles and shampoo bottles, and the waste wood is sourced from untreated wood waste from Australian sawmills.

Use of this product has resulted in the diversion of approximately 26 tonnes of plastic and wood waste from landfill.

Recycling on the Waurin Ponds Station upgrade

Three exciting opportunities for material reuse have been adopted as part of the Waurin Ponds Station upgrade. After securing approval from VicTrack and endorsement from V/Line, approximately 800 tonnes of ballast removed during construction has been used at Waurin Ponds Station as replacement structural fill for the new second platform.

Around 3,750 tonnes of recycled concrete, sourced from previous projects and structures, has been procured for use on the project. The concrete is crushed, screened for excess dirt and steel, and then broken into granulates suitable for reuse as aggregates and fines, reducing the need to use virgin materials.

Reconophalt is the first road surfacing material in Australia derived from waste streams. The use of sustainable asphalt, including Reconophalt at Waurin Ponds Station for the more than 200 new and upgraded car parking spaces, has diverted the equivalent of 549,000 plastic bags, 16,000 printer cartridges and 124 tonnes of recycled asphalt from landfill. It includes materials such as soft plastics from plastic bags and packaging, waste glass destined for landfill, waste toner from used printer cartridges, reclaimed asphalt pavement (RAP) from end-of-life roads, crumb rubber from end-of-life tyres, coarse aggregate and sand from street sweepings and hydro-excavation materials processed at Downer's waste processing facility.

Vinidex pipes at Shepparton

The Shepparton Line Upgrade has included approximately 321 tonnes of Vinidex's multi-layered PVC-U pipes within works to date. The middle layer of these pipes contain recycled PVC-U. By recycling PVC, the overall lifespan of these products increases by around 500 years.

Using recycled materials reduces the amount of landfill waste created by the project, and it provides a cost saving as PVC conduits with recycled content are less expensive than those with virgin PVC. The Shepparton Line Upgrade is the first Regional Rail Revival project to use these pipes.



Reconophalt at Waurin Ponds Station



Vinidex pipes



Water management

Metro Tunnel: Tunnels and Stations

- Water scrubbers are in use at City Square and Federation Square to remove airborne dust from the tunnel ventilation system. These scrubbers have been installed to use recirculated water. With the scrubbers in operation, CBD South precinct has achieved a water recycling rate of 32%.

Metro Tunnel: Rail Systems Alliance

- Rainwater harvesting system, raingarden, garden beds and underground retention tanks have been installed at Sunshine Signalling Control Centre as a Water Sensitive Urban Design (WSUD) initiative to reduce overall stormwater outflows from the site and pollutants entering the stormwater system
- 3 x 10kL tanks installed.

Waurin Ponds Station upgrade

- 4 x 10kL tanks installed for rainwater harvesting and use at the station
- 1570kL recycled water used in construction.

Shepparton Line Upgrade

- 804kL of recycled water used in construction.

Gippsland Line Upgrade

- 2 x 22.7kL rainwater tanks at the Bunyip site office.

National Water Week on the Metro Tunnel Project – Tunnels and Stations

National Water Week is a campaign held across Australia by the Australian Water Association. The campaign aims to inspire individuals, communities and organisations to work together to build community awareness and understanding of water-related issues.

This year's National Water Week theme was "Caring for water and Country", which aims to deepen our understanding of Australian First Nations people's knowledge in protecting and sustaining our water and lands for over 65,000 years. To celebrate National Water Week, a toolbox ran at all project sites on 21 October, 2021.

The toolboxes provided an opportunity to remind construction teams and the workforce of small habits they can adopt on site to decrease the water footprint and to protect our waterways from offsite discharges.

Some of the suggestions included:

- Report all leaks to site supervisor for the appropriate treatment
- Clean tools and washdown plant with minimal/recycled water
- Protect stormwater pits and runoff with the appropriate environmental controls.



Site toolbox – Tunnels and Stations



Energy

Metro Tunnel: Tunnels and Stations

- Installation of a 125kW solar photovoltaic array on the roof of the Arden Station entrance building, generating approximately 140MWh of electricity annually to offset station electricity use and mitigating approximately 188 tonnes of CO₂e per year.

Metro Tunnel: Rail Systems Alliance

- 79% certified renewable energy in construction
- 104 solar panels installed at Sunshine Signalling Control Centre
- All site facilities connected to mains are carbon neutral and use 100% accredited Green Power
- 45kW of Solar PV installed at Sunshine Signalling Control Centre.

Waurin Ponds Station upgrade

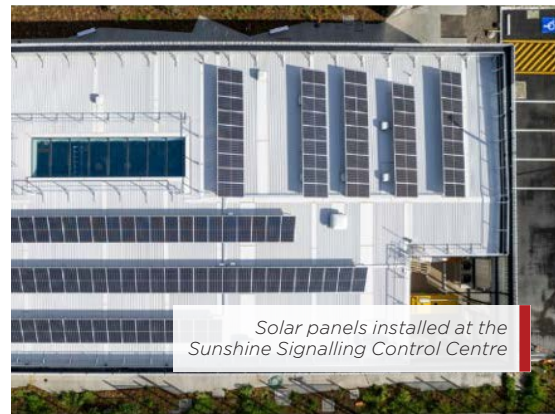
- 24.6kW of Solar PV installed at the station.

Sustainable lighting towers at the Metro Tunnel Project's Rail Systems Alliance

Following a case study to compare energy use and sustainability between hybrid, solar and diesel lighting towers used on site, the Rail Systems Alliance has seen an increased adoption of sustainable lighting towers in 2021.

Installations include:

- 8 x Solar street lamps - Sunshine
- 4 x Hybrid lighting towers - Sunshine
- 2 x Solar lighting towers - Pakenham.





Laying 3000m² of gunnel matting



Victoria's first frog-friendly rail culvert



Ecology and vegetation

Metro Tunnel: Tunnels and Stations

- Net increase in trees planted = 21.

Metro Tunnel: Rail Infrastructure Alliance

- 3.36ha of ecological extents enhancements planned = above 30% enhancement of ecological value + estimated 67% increase in habitat connectivity
- Finalist for the Sunbury Ecological Enhancement Initiative at the ARA (Australian Rail Association) Awards.

Warrnambool Line Upgrade

- 391 no go sites established.

Shepparton Line Upgrade

- 31 no go sites established
- 110 trees saved from removal through strategic design and construction
- 12.94ha of land saved from clearing through design optimisation
- 200 logs from trees cleared for works were donated to the Goulbourn-Broken CMA for use as fish hotels in waterways, to improve aquatic ecology.

Metro Tunnel Project's Rail Systems Alliance visits the Friends of the Helmeted Honeyeater

In March 2021, members of Rail Systems Alliance volunteered at Yellingbo Nature Reserve in the Upper Yarra Valley with the Friends of the Helmeted Honeyeater program. The Helmeted Honeyeater is critically endangered, with fewer than 200 remaining in the wild. Volunteers prepared groundwork for new habitat at the reserve by laying 3000m² of gunnel matting.

The Warrnambool wildlife corridor

As a part of the Warrnambool Line Upgrade, Victoria's first rail culvert was developed to meet the needs of the Growling Grass Frog. The Growling Grass Frog – one of Australia's largest frogs – is considered threatened under the Commonwealth Environment Protection and Biodiversity Conservation Act (1999), and endangered under the Victorian Flora and Fauna Guarantee Act (1988). The species is only found in small, isolated populations across south-eastern Australia.

A specially made 12m x 6.9m box acts as a channel for the frog population. With microclimate vents, stone pads and plans for beaching and native rushes and sedges, the channel creates a quasi-natural habitat and allows frogs to move between off-stream habitats.

A helping hand at Gippsland

The Gippsland Line Upgrade corridor supports about 41 hectares of bandicoot habitat. A predator control and monitoring program is underway to help minimise impacts on the Southern Brown Bandicoot, with 300 metres of Southern Brown Bandicoot fencing and signage erected in the Bunyip and Longwarry areas to ensure habitat removal limits are not exceeded.

During a preclearance inspection at Longwarry on 15 November, the project ecologist identified a hollow in a mature tree and marked this as a potential habitat tree. A ring tail possum later found within the hollow was collected and safely relocated.

In December 2021, the project team found two Pacific Black ducklings near the Hope Street, Bunyip level crossing. The mother of the ducklings could not be located so they were safely collected and taken to the Bunyip Veterinary Clinic.




A ring tail possum found in the hollow of a mature tree

Social

Objective:

Rail Projects Victoria aims to minimise and manage potential impacts of our projects on local communities and identify opportunities to work with the community to contribute positively to the social fabric in the areas we work in.



Acknowledgement of Country

We acknowledge the Aboriginal People as the Traditional Owners of this land and we pay our respects to Elders past and present.

www.kinyalemk.com.au

Cultural heritage

Traditional Owner plaques at the Rail Systems Alliance sites

At the Metro Tunnel Project's Rail Systems Alliance sites in Melbourne's CBD, Epping, Sunshine, Springvale, Keysborough and Pakenham, Acknowledgement of Country plaques have been installed to acknowledge the Traditional Owners of the land on which our project teams work. These plaques were designed and delivered in collaboration with Indigenous social enterprise Kinya Lerrk.



Traditional Owner plaques installed at Rail Systems Alliance sites

Cultural heritage salvage works on the Sunbury Line Upgrade

In October 2021, cultural heritage salvage works were undertaken at Shields Street, Sunbury. The works were undertaken with the project archaeologist and a representative from the Wurundjeri Woi Wurrung Cultural Heritage Aboriginal Corporation. While no artefacts were found, ongoing engagement with the Wurundjeri people helps to protect cultural heritage in the area.



Cultural heritage salvage works - Rail Infrastructure Alliance



**The
Metro Tunnel
Creative Program
curates artworks
and events to
enhance Melbourne
city life alongside
the construction of
the Metro Tunnel and
offset the disruption
across our worksites,
keeping Melbourne a
vibrant and attractive
destination as we build
this city-shaping project.**



*Light of an Invasive Native
by Jenna Lee*

Metro Tunnel Creative Program

The Creative Program commissions a range of creative works from First Nations artists and creative practitioners, from emerging through to established, and partners with cultural organisations, events and festivals to deliver cultural programming.

Light of an Invasive Native

Jenna Lee

Jenna Lee is an interdisciplinary artist of the Larrakia, Karajarri and Wardaman peoples. 'Light of an Invasive Native' depicts the pitch black darkness of museum collection stories as well as the resulting light and energy that radiates when our botanical and cultural collections are accessed and activated, and is the final iteration of an almost three-year ongoing body of work. This work was part of 'Moving Objects', commissioned by RISING, Museums Victoria and YIRRAMBOI and made possible by the Metro Tunnel Creative Program.





Uncle Jack Charles (Men in Mourning)
by Maree Clarke

Uncle Jack Charles (Men in Mourning) *Maree Clarke*

Photographer and artist Maree Clarke is a Yorta Yorta/Wamba Wamba/Mutti Mutti/Boonwurrung woman who grew up in northwest Victoria. Maree makes works that explore the customary ceremonies and rituals of her ancestors. Mourning is an important ritual and ceremony, with all cultures having ways of expressing and showing loss of kin, land, language and cultural practices.

This work is an expression of Indigenous loss. 'Uncle Jack Charles (Men in Mourning)' was presented by Photo Australia and the Metro Tunnel Creative Program for PHOTO 2021.

The Agency of Bunggabi (trees) *Brian Martin*

A proud descendant of Bundjalung, MurraWarri and Kamilaroi peoples, and practising artist for 30 years, Brian's work articulates the agency and importance of Country and connection to cultural material. It is significant to connect cultural material with contemporary practices as it revitalises our ancestral past and demonstrates that Indigenous cultures are about the interconnectedness of memory, practice and place. This work was part of 'Moving Objects', commissioned by RISING, Museums Victoria and YIRRAMBOI and made possible by the Metro Tunnel Creative Program.



The Agency of Bunggabi (trees)
by Brian Martin

Miss First Nation

In collaboration with the Midsumma and YIRRAMBOI festivals, the Metro Tunnel Creative Program supported the Miss Photogenic contest at Miss First Nation, seeing Lady Gargles, Estelle, Cerulean, Karma Bites, Stone Motherless Cold and Peaches photographed at the Victorian Tunnelling Centre.

These are just some of the incredible works delivered by the Metro Tunnel Creative Program in partnership with artists, cultural organisations, events and festivals.



Photographed by Joseph Meyers at the Victorian Tunnelling Centre, Holmesglen Institute's Chadstone campus

Objective:

The Rail Projects Victoria Education Program focuses on careers learning, skills development and student participation in Science, Technology, Engineering, Arts and Maths (STEAM) subjects.

Education Program



In 2021 the Metro Tunnel HQ visitor centre was open for just 12 weeks of the school year due to the COVID-19 pandemic. Adapting to these changed conditions, the Education Program's focus shifted from the Metro Tunnel HQ classroom to prioritising resource development and alternative ways to engage with students including virtual school incursions.

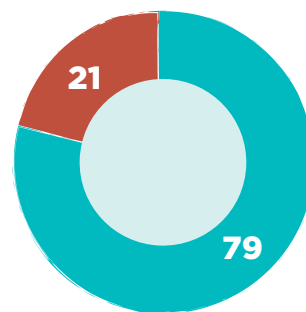
Digital resources

The Education Program website provides a suite of ideas, activities and opportunities for kids to learn about our projects and was key to our engagement activity during the extended lockdowns. Resources are sorted thematically, inviting visitors to learn about different aspects of our work. Visitors can become a Metro Tunnel expert, construction master or get their TBM license.

Our online resources allow parents and teachers to access materials before or after a visitor centre session to augment the learning experience. It also provides opportunities to connect new audiences to our Education Program via social media, newsletters and advertising.

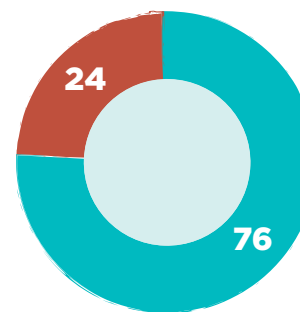
A total of
55 education
events for 2021

School sector



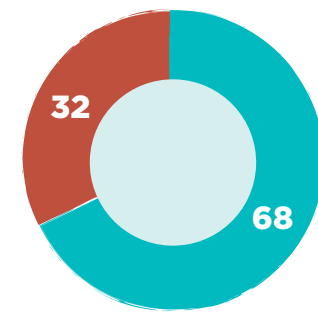
Government 79%
Catholic and Independent 21%

School location



Metropolitan 76%
Regional 24%

Delivery mode



In person 68%
Online 32%

Train Master CHALLENGE



Train Master Challenge

In September 2021 we launched Train Master Challenge. This purpose built, browser based digital game is designed to engage children aged 7-12 with the concept of High Capacity Signalling, and is part of a new Signalling Wizard module on the Education Program website.

Train Master Challenge is the first educational game of its kind across the Victorian Government's Big Build projects. It gives children a taste of life as a signalling engineer by challenging them to keep train lines running smoothly and deliver as many passengers to their destination as they can within a given time. Train Master Challenge can be played across multiple devices: iPhone, iPad, Desktop, and will also be deployed at shopping centre activations, community events and pop ups. Kids can also play the game at Metro Tunnel HQ and it has quickly become one of the centre's most popular activities.



Regional Rail Revival Design Challenge 2050

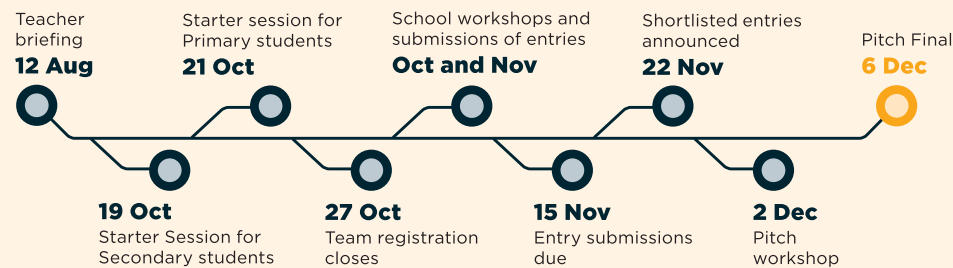
Design Challenge 2050 is a competition for schools in areas where upgrades are being delivered by Regional Rail Revival projects. In partnership with local Tech Schools, teams of students in years 5-8 are invited to present their ideas for the future of public transport and consider, 'What does the smart and connected city of 2050 look like?'

In its second year of operation the competition more than doubled in size to include students from Ballarat, Bendigo, Geelong and Gippsland. It began as students returned to the classroom after the winter lockdown, enabling teams to access facilities at their

local Tech School to build prototypes and create video footage to support their entries. COVID restrictions meant that finalists were unable to present their pitches in Melbourne but instead did so at a lively online gala event.

More than 240 students (68 teams) from eight different schools participated in this year's competition and the enthusiasm of both our Tech School partners and their local schools suggests there will be strong support for an even bigger competition and hopefully a live, Melbourne based gala final in 2022.

Your design calendar



Economic

Objective:

Rail Projects Victoria aims to contribute to a resilient and prosperous economy that offers opportunities for all.

Employment and industry development – projects to date

Metro Tunnel: Tunnels and Stations

- 17 cadets, 154 engineering cadets (including 6 graduates), 151 trainees (including 6 graduates) and 90 apprentices employed under the Major Project Skills Guarantee (MPSG)
- 218 Aboriginal employees worked 308,391 hours, achieving 1.59% of the 2.5% target
- 331 priority job seekers worked 571,770 hours, achieving 2.95% of the 1.5% target
- 412 people worked 796,713 hours, achieving 67.19% of the total MPSG workforce hours.

Metro Tunnel: Rail Systems Alliance

- 78 engineering cadets (including 21 graduates), 53 trainees and 15 Apprentices employed under the Major Projects Skills Guarantee (MPSG)
- 27 Aboriginal employees worked 40,528 hours, achieving 1.93% of the 2.5% target
- 54 priority job seekers worked 89,824 hours, achieving 4.28% of the 5% target
- 146 people worked 190,167 hours, achieving 116.68% of the total MPSG workforce hours.

Metro Tunnel: Rail Infrastructure Alliance

- 111 cadets (including 28 undergraduates), 53 trainees and 45 apprentices employed under the Major Project Skills Guarantee (MPSG)
- 168 Aboriginal employees worked 172,947 hours, achieving 3.37% of the 2.5% target
- 438 priority job seekers worked 226,600 hours, achieving 4.41% of the 5% target
- 209 people worked 271,870 hours, achieving 81.55% of the total MPSG workforce hours.

Warrnambool Line Upgrade

- 2 cadets (including 1 undergraduate), 4 engineering cadets and 13 apprentices employed under the Major Project Skills Guarantee
- 11 Aboriginal employees worked 12,273 hours achieving 3.15% of the 2.5% target
- 6 priority job seekers worked 5,893 hours, achieving 1.51% of the 3% target
- 23 people worked 8,148 hours achieving 19.95% of the total MPSG workforce hours.

Gippsland Line Upgrade

- 6 cadets, 6 engineering cadets and 2 trainees employed under the Major Project Skills Guarantee (MPSG)
- 22 Aboriginal employees worked 7,432 hours achieving 2.39% of the 2.5% target
- 18 priority job seekers worked 7,681 hours, achieving 2.39% of the 2.5% target
- 14 people worked 9,113 hours, achieving 16.10% of the total MPSG workforce hours.

Shepparton Line Upgrade

- 4 cadets (including 1 graduate), 9 engineering cadets and 15 trainees employed under the Major Project Skills Guarantee (MPSG)
- 42 Aboriginal employees worked 12,218 hours, achieving 2.84% of the 2.5% target
- 40 priority job seekers worked 11,658 hours, achieving 2.84% of the 2.5% target
- 28 people worked 25,295 hours, achieving 63.26% of the total MPSG workforce hours.

Training on the Metro Tunnel Project – Tunnels and Stations

The Cross Yarra Partnership (CYP) D&C has supported staff and the community in pursuing education opportunities by partnering with Victoria University and Holmesglen to assist students attaining their Cert IV in Construction Supervision and Cert III in Civil Construction respectively.

A subcontractor partnership with the Australian Institute of Management (AIM) has continued in 2021, with 139 training profiles created by CYP D&C subcontractor staff members. Students have enrolled in 279 courses, and 85 of these have been completed. In October 2021, an additional course titled 'Mini MBA in Emerging Technologies' was made available to Metro Tunnel workers, taking the total number of courses on offer to 24. This partnership provides unlimited access to online professional development courses and virtual training solutions for all CYP D&C subcontractor staff.

Aboriginal employment on the Shepparton Line Upgrade

Asked to describe her workplace, at the Murchison East site office of the Shepparton Line Upgrade, Anita Doidge couldn't be more effusive.

"It's absolutely gorgeous, I have the best working environment," she says, doing a quick head count of her 11 office buddies, from engineers to graduates to her two fellow admin team members. "I wish I'd been given this opportunity a lot earlier, because this company is just wonderful in their choice of people."

Anita epitomises the value of the Aboriginal Employment Target, where 2.5 percent of RPV workforce hours are performed by First Nations-identified people. The grandmother of five was doing temp work with Sureway Employment and Training agency when they alerted her to a vacancy at Coleman Rail, based just south of her Shepparton home. She couldn't be happier.

"It means I'm not going to sit idle and become aged early," Anita says of the opportunity. "It keeps my mind active, it keeps my body active, it keeps me interacting with people. It's a wonderful thing."

**Darmon Holloway (Downer)
Site Supervisor**

Darmon Holloway is a proud First Nation person of the Yorta Yorta/Barkinji clan who grew up in Wadarurrung Country, the Country of much of the Warrnambool Line Upgrade (Waurrn Ponds to Winchelsea). Darmon is one of five boys and was exposed to lots of on-the-job training with heavy machinery, construction activities and even first aid.

"I studied Agronomy and was also a farmer, then through word of mouth through a friend, I entered the industry... it is the drive I have to achieve that had led me to work throughout the industry, which is a credit to my family."

He started off in construction 25 years ago as a rigger dogman within the mining industry all over Australia, where he only knew of one other indigenous person in the construction industry.

Prior to becoming a supervisor, Darmon had leading hand experience. Darmon enjoys working out in the environment, getting his hands busy and being outside travelling through the sites along the corridor.

"I have worked hard to improve myself, all the opportunities that I have got, I have worked hard for. Irrespective to do with my background or culture, I would like to thank Downer as it is a company that recognises the importance of diversity within the business and wants to thrive to move forward. It is a company that looks broader at the personnel that they employ so that they can thrive in the future."

**"It has been great to
see the up and coming
Indigenous people
in the industry."**



Darmon Holloway (Downer)
Site Supervisor

Social procurement and Victorian Aboriginal business spend – projects to date

Metro Tunnel: Tunnels and Stations

- Over \$65,312,168 social procurement spend, achieving 435.4% of target spend, and engaging 96 organisations
- Over \$55,616,335 Victorian Aboriginal businesses spend, achieving 85.2% of social procurement spend on Victorian Aboriginal businesses, and engaging 47 Aboriginal businesses.

Metro Tunnel: Rail Systems Alliance

- Over \$4,597,974 social procurement spend, achieving 92% of target spend and engaging 33 organisations
- Over \$2,961,356 Victorian Aboriginal businesses spend, achieving 64.4% of social procurement spend on Victorian Aboriginal businesses, and engaging 12 Aboriginal businesses.

Metro Tunnel: Rail Infrastructure Alliance

- Over \$13,895,168 social procurement spend, achieving 92.6% of target spend and engaging 86 organisations
- Over \$2,771,061 Victorian Aboriginal businesses spend, achieving 19.9% of social procurement spend on Victorian Aboriginal businesses, and engaging 18 Aboriginal businesses.

Warrnambool Line Upgrade

- Over \$364,910 social procurement spend, achieving 15.9% of target spend and engaging 12 organisations
- Over \$337,148 Victorian Aboriginal businesses spend, achieving 92.4% of social procurement spend on Victorian Aboriginal businesses, and engaging 7 Aboriginal businesses.

Gippsland Line Upgrade

- Over \$1,228,087 social procurement spend, achieving 12.8% of target spend and engaging 19 organisations
- Over \$858,306 Victorian Aboriginal businesses spend, achieving 69.9% of social procurement spend on Victorian Aboriginal businesses, and engaging 20 Aboriginal businesses.

Shepparton Line Upgrade

- Over \$909,520 social procurement spend, achieving 95.7% of target spend and engaging 2 businesses
- Over \$14,225 Victorian Aboriginal businesses spend, achieving 1.6% of social procurement spend on Victorian Aboriginal businesses, and engaging 1 Aboriginal business.



'Pouring for a Purpose' cafe at the Arden site office - Tunnels and Stations

2022 aspirations




With projects underway across metropolitan and regional Victoria, RPV is working with our delivery partners to achieve positive outcomes for the community, the environment and our projects. As we grow, the lessons learned from our projects allow us to improve and drive greater innovation in the future, so that we can continue to connect communities and people in the most sustainable way.

More information

To find out more about our projects:

 railprojects.vic.gov.au

 1800 105 105 (24 hours a day, 7 days a week)

