SUBURBAN RAIL LOOP EAST

Annual Sustainability Report

2024

More Homes For Victorians

VICTORIA State Government

Acknowledgement of Country

Suburban Rail Loop Authority acknowledges the Traditional Owners of the land, sky and waters across Victoria and pays respect to their Elders past and present. We proudly recognise the strength and enduring connection to Country as the world's longest living culture and the profound wisdom, resilience, and contributions of First Peoples and their communities. We are committed to the ongoing journey of reconciliation by embedding self-determined Aboriginal ways of knowing and doing across the lifespan of the SRL project.

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Data limitations

Reporting for SRL East uses actual data for Initial and Early Works, as well as a combination of actual and estimated data for the Tunnels South work package either produced by third parties and collected or produced by SRLA. For an overview of how SRLA has collected or produced data for this report, please refer to Appendix A: Meeting our requirements – sustainability reporting.

Independent Review

This report has been reviewed by an independent reviewer against the principles of the Global Reporting Initiative, an international standard for sustainability reporting for confirming the Infrastructure Sustainability rating for delivering the SRL East twin tunnels between Cheltenham and Glen Waverley and Glen Waverly and Box Hill, respectively.

The Independent Reviewer has not participated in the preparation of this report which is prepared and issued solely by SRLA.

Disclaimer

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About this report

Suburban Rail Loop Authority (SRLA) is embedding sustainable environmental, social, and economic outcomes into the design, delivery and operation of Suburban Rail Loop (SRL) East.

SRLA is committed to regularly reviewing, critically assessing, and reporting progress in these key areas of sustainability to promote transparency and accountability in meeting objectives.

This report describes the achievements in design and delivery of SRL East from 1 January 2024 to 31 December 2024.

SRLA has set ambitious targets and benchmarks with our contractors and has already achieved important sustainability outcomes for the community.

This 2024 report presents performance against SRLA's sustainability objectives and targets delivered by SRL East and the three work packages awarded so far: Initial and Early Works, Tunnels South and Tunnels North.

The Initial and Early Works contract was awarded in 2021 to Laing O'Rourke to prepare sites for tunnelling and major construction, move and protect underground services and undertake ground improvements and road modifications.

The Tunnels South contract was awarded in December 2023 to global consortium Suburban Connect to build the 16-kilometre southern section of SRL East twin tunnels between Cheltenham and Glen Waverley.

The Tunnels North contract was awarded in November 2024 to global consortium Terra Verde to build the 10-kilometre northern section of SRL East twin tunnels between Glen Waverley and Box Hill.

As construction progresses and further contracts are awarded, SRLA will continue to embed sustainability outcomes in the design, construction and operation of SRL East. We will continue to share sustainability achievements and outcomes in annual sustainability reports.

Gardiners Creek Trail

Suburban Rail Loop

Melbourne will be a city of nine million people by the 2050s – the size of London today. We need more transport and more homes in the right places – and Suburban Rail Loop (SRL) will deliver both. SRL is a city and state-shaping project that will transform Victoria's public transport system, connect our suburbs and make travel easier and more convenient.

As Australia's largest housing project, SRL will not only deliver faster, more reliable travel for Victorians, it will help deliver thousands more homes where they're needed – right next door to jobs, services and world-class public transport. SRL will connect every major train line from the Frankston line to the Werribee line, via Melbourne Airport, and will improve access to housing, jobs, schools, universities and hospitals in Melbourne's middle suburbs.

The project will add the wheel to Melbourne's 'hub and spoke' railway network so that it is easier and more convenient for people to travel around our city, creating a public transport network fit for a global city. Regional passengers won't have to travel through the CBD to reach destinations across Melbourne, with transport super hubs at Clayton, Broadmeadows and Sunshine connecting passengers to the SRL network.

SRL is a project of national significance that will help curb Melbourne's urban sprawl and allow our city to grow more sustainably over time – making sure we have world-class housing and transport connections fit for Australia's largest city in the 2050s.

This is a project that will not only change the way we move around – it will shape how we grow in the decades ahead.

SRL will take 600,000 cars off the roads every day – reducing pollution and emissions and saving the economy half a billion dollars – all trains will be powered by 100 per cent renewable energy, and all stations will have a 5-star Green Star rating.

For illustrative purposes, subject to further detailed technical investigations and consultations

SRL East

SRL East will deliver 26 kilometres of twin tunnels and six new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill.

SRL East will connect major economic and activity centres including Monash, Clayton and Box Hill, deliver direct train lines to Monash and Deakin universities for the first time, and provide more homes on the doorstep of world-class public transport.

Construction of SRL East from Cheltenham to Box Hill is powering ahead, creating up to 8,000 direct local jobs, with main works starting, tunnelling to begin in 2026 and trains running in 2035.

Planning is also well underway – underpinned by extensive and ongoing consultation – to ensure the neighbourhoods around the new underground stations are vibrant and thriving communities for generations to come.

As well as a new turn-up-and-go train service and six new stations, SRL East will deliver new and improved open and green spaces, well-designed station plazas, more trees and greenery, safe and accessible connections to existing stations, new and upgraded bus and tram interchanges, walking and cycling paths and thousands of bike parking spaces.

SRL will attract more people, businesses and investment into the areas around the new stations – generating more jobs closer to where people live – and creating vibrant communities with local shops, restaurants and services.

As Australia's largest housing project, SRL East will help deliver 70,000 additional homes in the areas around the 6 new underground stations.

For illustrative purposes, subject to further detailed technical investigations and consultations

Concept images of neighbourhoods around SRL East in the future

'Empowering Sustainability' has been included as a key theme of the SRL East draft structure plans. Planning for the neighbourhoods around SRL East stations is focused on promoting greenery, biodiversity and sustainable transport options.

Artist's impression of Burwood and Gardiners Creek

Artist's impression of Box Hill

Artist's impression of Monash

2024 at a glance

Breaking ground and preparing for tunnelling

In 2024, construction was underway at all six station sites from Cheltenham to Box Hill and the train stabling facility in Heatherton. SRLA continued to collaborate on sustainable outcomes with our Initial and Early Works contractor.

Tunnels South contractor, Suburban Connect, completed design up to 60%, achieved several procurement milestones and began preparatory works to build 16 kilometres of twin tunnels between Cheltenham and Glen Waverley. Our sustainability highlights section identifies some of the initiatives that have started during this early stage of package work, which will be built upon in coming years to support SRLA's sustainability goals.

The contract for Tunnels North was awarded to Terra Verde to build the northern section of twin tunnels between Glen Waverley and Box Hill.

The two SRL East tunnelling contractors are preparing for tunnelling to start in 2026 – tunnel boring machines (TBMs) have been ordered and will start arriving in 2025. Two of the TBMs will be remanufactured after being used on the Sydney Metro project – reducing resource use and the carbon footprint of SRL works. All TBMs will be powered by 100% renewable electricity.

TBMs will launch from Clarinda to dig tunnels between Cheltenham and Glen Waverley, and from Burwood to dig the tunnels between Glen Waverley and Box Hill.

In 2024, works also commenced on the new Clayton community space to provide recreational opportunities for the Clayton community while we build SRL East.

Early works underway in Box Hill

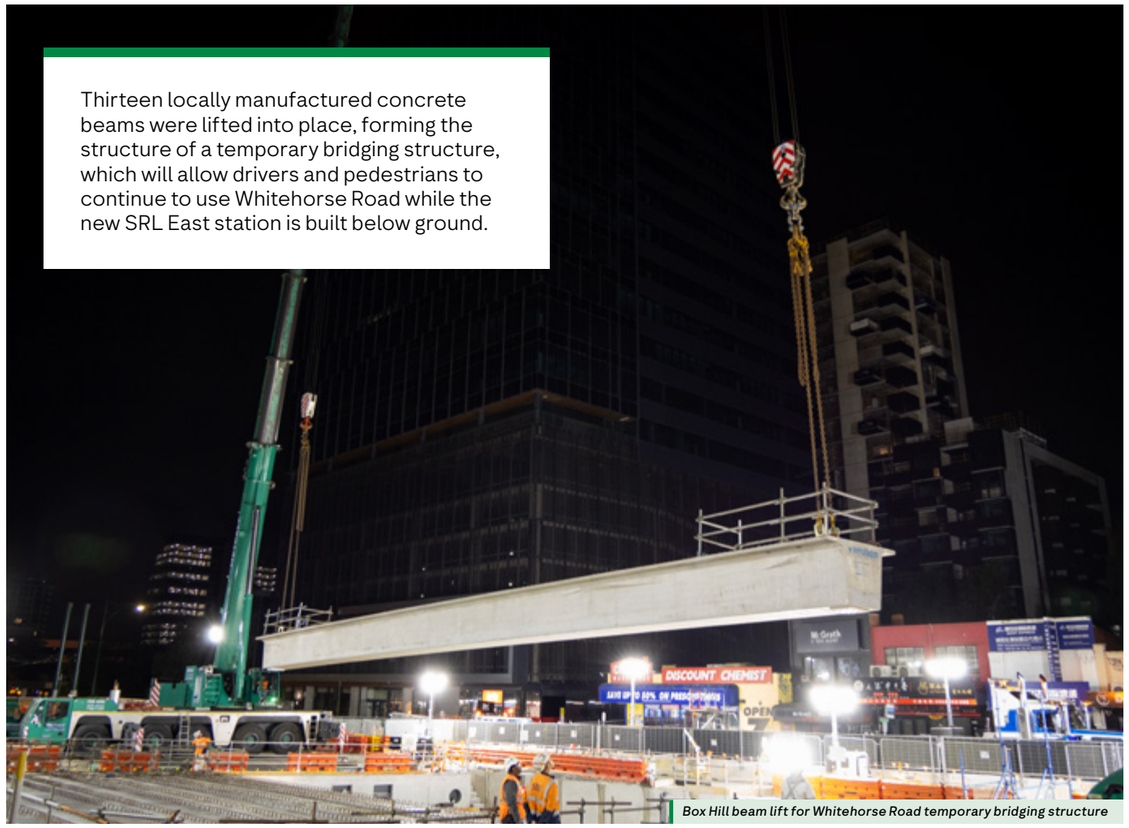
As part of Clayton works, two new public open spaces will provide 20 per cent more open space and 46 new trees for locals.

Fun at the new Clayton community space

Excavation of the TBM launch site at Burwood

Traffic barriers delivered to Tunnels South sites

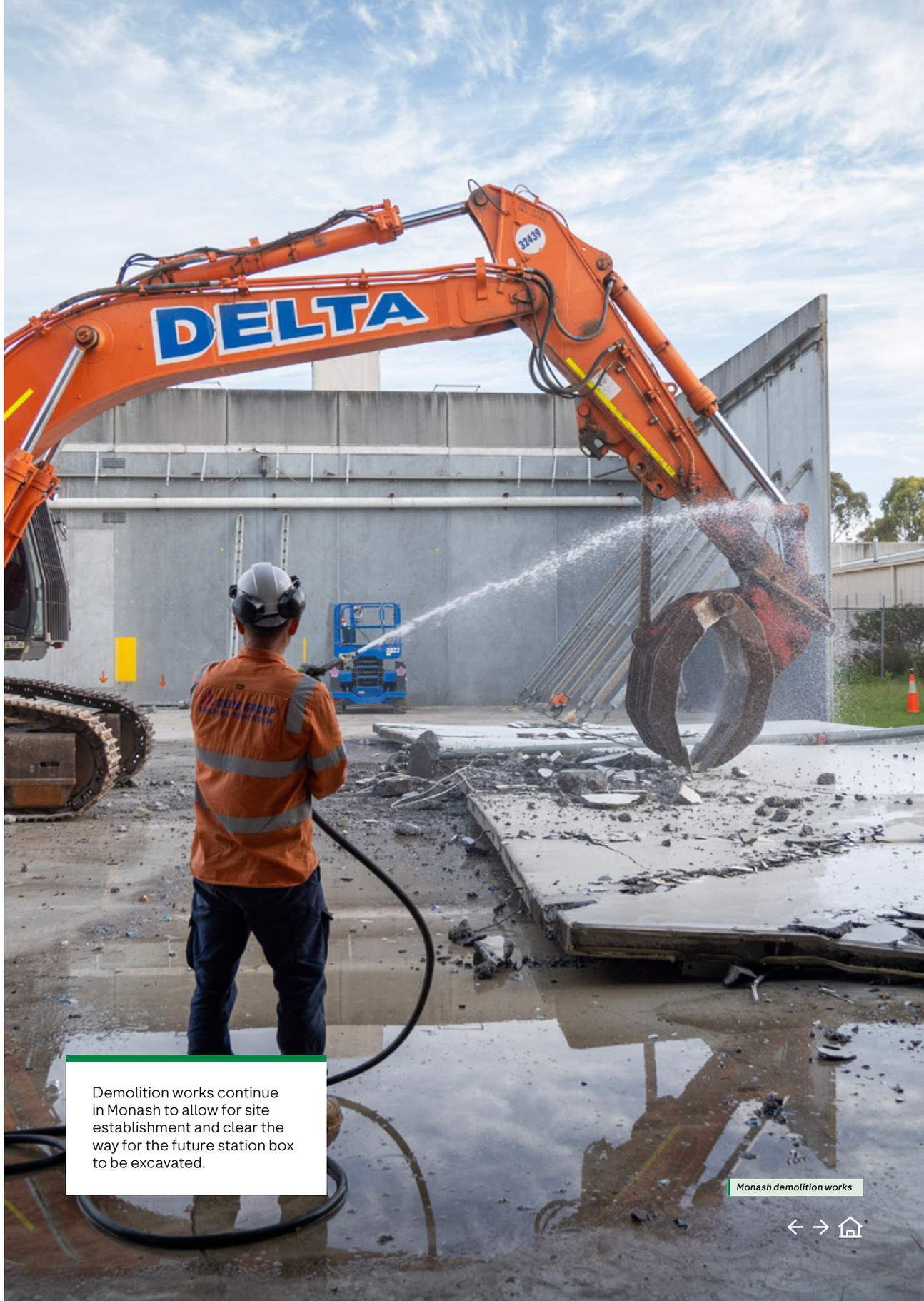
Thirteen locally manufactured concrete beams were lifted into place, forming the structure of a temporary bridging structure, which will allow drivers and pedestrians to continue to use Whitehorse Road while the new SRL East station is built below ground.



Box Hill beam lift for Whitehorse Road temporary bridging structure

Moving underground services in Glen Waverley

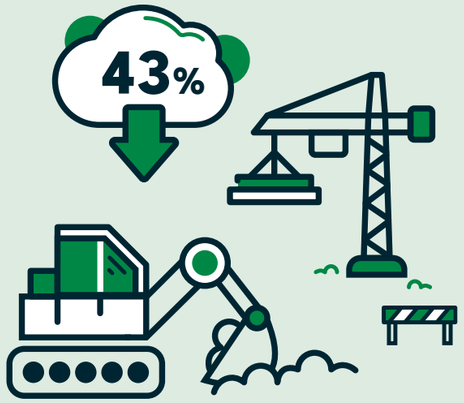
Site office establishment at Cheltenham



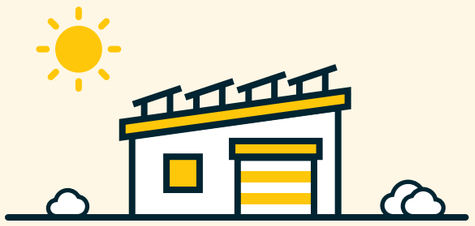
Demolition works continue in Monash to allow for site establishment and clear the way for the future station box to be excavated.

Monash demolition works

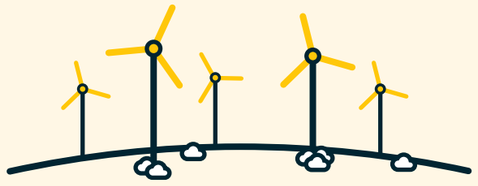
Sustainability highlights



Tunnels South contractor projects **43% reduction in construction emissions** (Scope 1 & 2) by project completion



13 solar powered sheds and dozens of eco-caravans across all work sites



100% renewable electricity is being used for all fixed construction plant equipment

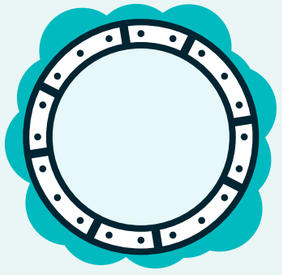
In 2024, we engaged **28 social benefit suppliers**

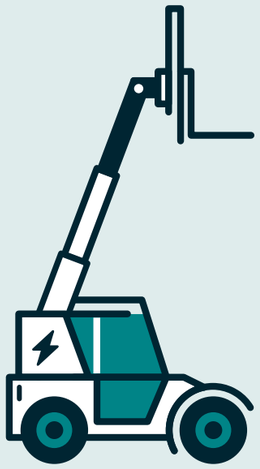
17 certified Victorian Aboriginal businesses

11 certified Victorian social enterprises

Tunnels South and North are estimated to reduce the use of **Portland cement in concrete precast TBM segments by a minimum of 50%**[2]

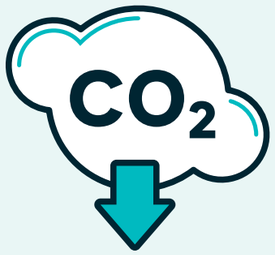
In an Australian first, our Tunnels South contractor will use a **cementless grout** for 2.2 km of the tunnel, with continued investigation for future applications.



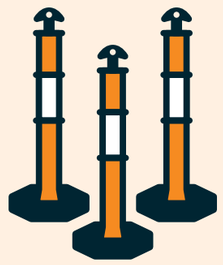


Electric telehandler arrived at Box Hill site for Initial and Early Works

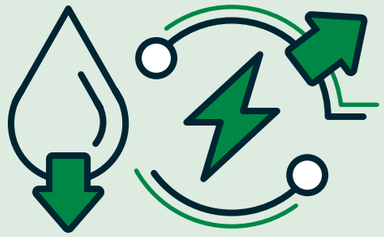
Based on the current design, our Tunnels South contractor is estimated to reduce the project's materials carbon footprint by >25%, equating to a **reduction of over 100,000 tonnes of carbon dioxide** equivalent[1]



Tunnels North has kicked off investigation into **geopolymer concrete trials** in 'sacrificial' TBM segments, a temporary section of the tunnel which requires removal for construction of the emergency support facility



Tunnels South contractor has procured **100% recycled bollards** from OC Connections, a pioneer in eco-friendly products that provides meaningful employment opportunities to a skilled workforce living with disability



The transition to electric and renewable equipment has saved **30,000 litres of petrol**

Initial and Early Works contractor has diverted **98% of clean spoil** and **93% of non-hazardous waste** from landfill, and reused topsoil and fill where possible

[1]*Due to the early stage of the project, measured quantitative data are not yet available for this metric. These values are estimations and are referenced as indicators for progress tracking purposes only. Data may be updated and refined as the project progresses towards completion.*

[2]*This is a high-level estimate, and a detailed materials model calculation of the total carbon impacts of materials has not yet been calculated. As such, these values are estimations and are referenced as indicators for progress tracking purposes only. Data may be updated and refined as the project progresses*

Meeting our sustainability ambition

SRLA has bold ambitions to embed sustainability across all parts of SRL East. Our approach is guided by SRLA's Sustainability Policy and formalised through the SRL East Environmental Management Framework.

We are on track and delivering on our Sustainability Objectives and Targets. SRLA regularly reviews, monitors and reports on sustainability performance to meet our compliance obligations. Our 2024 sustainability performance has been reviewed by a third party against Global Reporting Initiative principles and to meet our Infrastructure Sustainability rating for our Tunnels South package.

Some key targets we are already progressing against include:

Carbon emissions

- Reduce upfront or embedded emissions from materials and the supply chain by at least 20% and develop the market's low carbon construction capabilities
- A 20% reduction in construction emissions

Energy

- All electrical fixed construction plant (i.e. site accommodation, lighting, ventilation, water treatment plant) to be powered with 100% renewable electricity
- All tunnel boring machines (TBMs) to be powered with 100% renewable electricity
- Maximise the use of electrical construction plant
- Maximise the use of alternative low carbon fuel sources

Water

- 10% potable water replaced with non-potable water during construction

Waste and materials

- Divert at least 95% of construction and demolition waste from landfill, and reuse topsoil and fill where possible
- Reducing the amount of cement in concrete by at least 35%

Frameworks and policies that guide our delivery of sustainability outcomes are detailed below.

SRLA Sustainability Policy

The **SRLA Sustainability Policy** supports sustainable communities and guides the overall approach for SRL East to achieve best practice environmental, social, and economic outcomes through design, delivery and operation.

The Environment Effects Statement

The **SRL East Environment Effects Statement (EES)** – Victoria's comprehensive and transparent assessment process – was released in late 2021. Its purpose was to identify and minimise potential impacts during design, construction and operation of SRL East, and proposed ways to avoid, offset or manage any effects. The SRL East EES was the first fully digital EES in Victoria. The innovative approach significantly reduced the need for printed copies and ensured easy access to information for everyone. The Minister for Environment and Climate Action released the assessment of the EES in August 2022 and granted SRL East planning approvals in September 2022. The EES will remain online for the life of the project as a reference document.

Suburban Rail Loop Authority will be a progressive leader that supports sustainable communities and enables great places in sustainable ways. Through our delivery of Suburban Rail Loop, we will help ensure a more liveable Victoria for present and future generations – environmentally, socially and economically

The Environmental Management Framework

The **SRL East Environmental Management Framework – Victoria's Big Build (EMF)** forms a part of the project's planning approval conditions. The EMF includes Environmental Performance Requirements (EPRs) that define auditable environmental outcomes that must be achieved during the design, construction and operation phases of the project. There are 10 EPRs relating to sustainability, with EPR SGG1 requiring SRLA to publicly report on its performance against the project's **Sustainability Objectives and Targets** .

Engagement and partnerships

SRLA recognises the important role that strategic engagement and partnerships play in the design and delivery of SRL East. As well as ongoing engagement with the community, key stakeholders and local governments along the SRL East alignment, SRLA collaborates with other relevant government bodies to assist in the development and delivery of sustainable outcomes for SRL East. We work with the Department of Energy, Environment and Climate Action (DEECA), Sustainability Victoria (SV), Recycling Victoria (RV), the Victorian Infrastructure Delivery Authority (VIDA), and ecologiQ as part of the Victorian Government's environment and climate change portfolio.

SRLA is also working with industry organisations including the Green Building Council of Australia (GBCA) and the Infrastructure Sustainability Council (ISC), as well as collaborating with Victorian universities through various workshops and reference groups. Continuous engagement with these organisations will assist SRLA and our partners in delivering on our targets to create internationally recognised sustainable rail infrastructure and precincts.

Innovations and opportunities

SRL provides an opportunity to deliver climate positive and resilient transport infrastructure, alongside liveable, future-proofed places. SRL is supporting the capability of Victoria's design and construction industry, embedding circular economy principles and reducing upfront greenhouse gas emissions. SRLA is committed to being a progressive leader and encourages innovation across all aspects of our program including during design, implementation, and through working with our delivery partners.

SRLA's key partners

SRL Precincts

SRL East will deliver extensive opportunities to create thriving centres with quality housing options, services and jobs close to home and world-class public transport in SRL Precincts at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill.

In early 2024, planning for the future of these neighbourhoods continued with consultation on the precinct Key Directions, which received more than 5,400 responses. Feedback from local communities on the 'Empowering Sustainability' direction indicated a desire to protect green space, promote biodiversity and build using sustainable materials.

In late 2024, final Visions were released for the SRL East Precincts to guide planning for the broader areas around each of the six SRL East stations and incorporated extensive community feedback received on the draft Visions released in 2023.

The first step to realising the Vision for each Precinct is preparing a Structure Plan for the areas surrounding each new SRL East station, and this work is continuing in 2025. Draft Structure Plans and Planning Scheme Amendments were released for exhibition in March 2025. They will guide how future growth will be managed to ensure that development and investment occurs in places and ways that maintain liveability, amenity and distinctive neighbourhood character.

SRLA will continue to explore how we can transition our precincts to a more circular, climate resilient and energy smart economy. For more information, please refer to **SRL East Precinct Planning.**

Realising the Vision for SRL Precincts

There are five precinct themes that will guide and direct strategic planning to help realise the Vision for the six precincts.

Enriching Community

Enriching Community will guide precinct planning to deliver healthy and inclusive neighbourhoods.

Better Connections

Better Connections will guide how we plan public and active transport options, connecting people to opportunities and experiences in the SRL East corridor and beyond.

Boosting the Economy

Boosting the Economy will guide how we build on the unique assets and strengths of each area to trigger investment growth.

Empowering Sustainability

Empowering Sustainability will guide how we adapt to and mitigate the effects of climate change and contribute to environmental sustainability.

Enhancing Place

Enhancing Place will guide how we plan vibrant, sustainable and inclusive public spaces that build on the existing character and identity of our suburbs.

United Nations Sustainable Development Goals

Our sustainability objectives and targets have been mapped against the United Nations (UN) Sustainable Development Goals (SDGs) to identify where SRLA is making a positive contribution to supporting these goals. The 17 SDGs are global goals adopted by all UN members to encourage action for a more sustainable planet by 2030, addressing global challenges such as climate, environment, prosperity, inequity, and peace.

SRLA's sustainability objectives and targets are expected to contribute to the 15 SDGs shown here.

For a comprehensive list of our objectives and targets mapped against the UN SDGs, see **Appendix D**.

SDGs aligned with SRLA's sustainability objectives and targets

Sustainability stories

SRLA's contractors are already achieving great things and embedding sustainability in every stage of the design and construction of SRL East. Here are some of the sustainability stories from 2024.

Our tunnels work includes designing and building to an Infrastructure Sustainability Council 'gold' rating to reduce the carbon, water, energy, materials and additional environmental impact of the tunnelling works.

Innovations in tunnel boring

1. All-women TBM crew

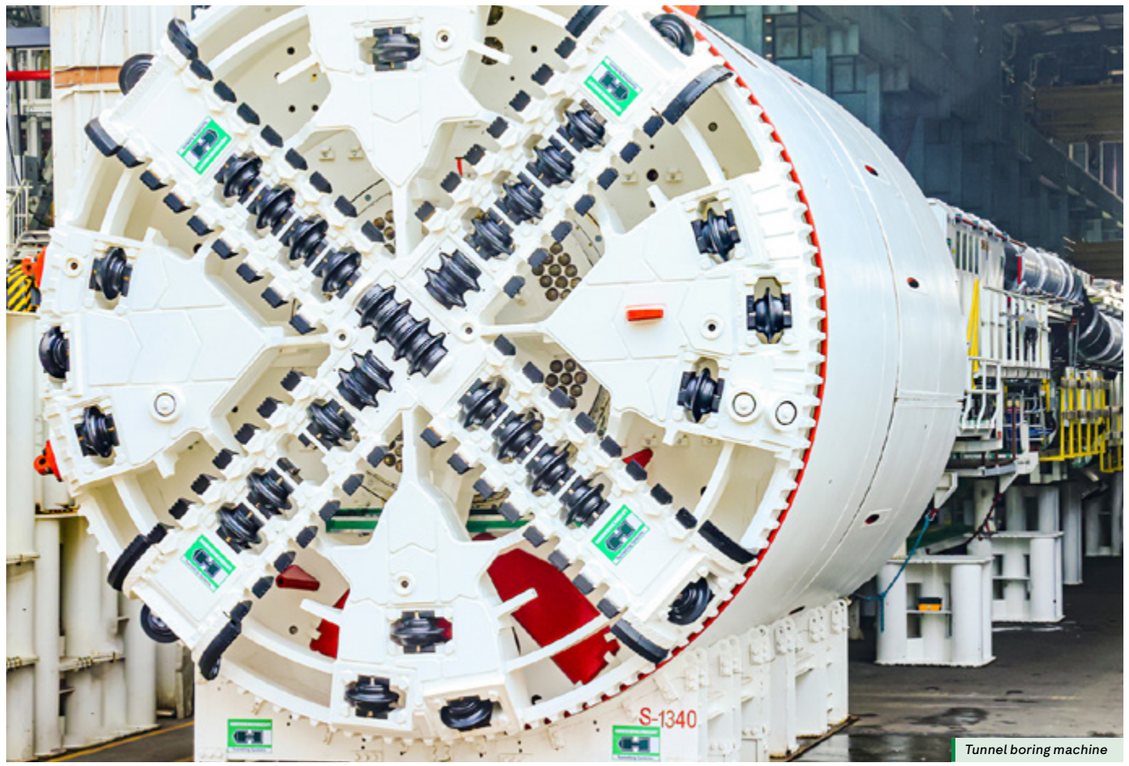
In a world first, 'one of crews' operating the TBMs for SRL East will be an all-women team. Almost 900 applications were received for the crew, which will include around 25 highly skilled roles - including the TBM operator, gantry and segment crane operators, grouters and support roles. Tunnelling will start in 2026, and the all-women crew is expected to be operating by 2027.

2. 100% renewable

All SRL East TBMs will be powered by 100 per cent renewable electricity. This reflects the project's commitment to contributing towards Victoria's renewable energy targets.

3. TBM procurement and remanufacture

Two of the TBMs will come to Victoria after helping build Sydney Metro – reducing the manufacturing carbon footprint compared to brand new TBMs.



Tunnel boring machine

Site works at Monash

Reducing energy use and carbon emissions

Electrification of plant and equipment

SRLA is committed to reducing energy usage and carbon emissions, setting targets that prioritise energy efficient practices and replacing traditional fossil fuel plant and equipment with electric alternatives. Our Tunnels South contractor has procured electric plant and equipment for a range of applications, such as passenger vehicles and forklifts, and solar-powered caravans have contributed to saving an estimated 30,000 litres of petrol.

Leading the energy transition – exploring geothermal energy

The Victorian Government has a target of 95 per cent renewable electricity by 2035 and is identifying opportunities to harness distributed energy resources. As part of SRLA's commitment to leadership in the sustainability space we are exploring ways to integrate renewable and innovative energy solutions into the project.

In 2022, a world-first trial at the Metro Tunnel's State Library Station site, in partnership with the University of Melbourne, demonstrated how geothermal energy can be captured inside a building's foundations.

SRLA is drawing inspiration from this recent work, and we are investigating the potential for geothermal heat pumps to support cooling of SRL East stations and surrounds.

A detailed feasibility study is underway, and regardless of the findings, we will share information that will provide vital learnings for the geothermal industry to support its development.

Progress at Burwood tunnel boring machine launch site

Reducing material's environmental impact

Staying water wise

SRL East will be built to minimise the use of potable water and maximise opportunities to include alternative water sources such as stormwater or groundwater. SRLA has set a minimum project target of 10 per cent potable water to be replaced by non-potable water during construction and operation, with further targets applied to station buildings and the train stabling facility.

Water use is currently being reduced on worksites by applying polymer binders to excavated soil. This reduces the need for water carts and mitigates the impacts of dust around the site and on the community.

Reducing cement emissions

Concrete is one of the most significant materials across SRL East, accounting for approximately 22 per cent of the projected total construction emissions.

One action we are taking to reduce the impacts of materials across SRL East is by reducing the amount of cement in concrete by at least 35 per cent during the construction phase.

The production of Portland Cement, the binding component of concrete, is responsible for a significant proportion of global greenhouse gas emissions. The use of Supplementary Cementitious Material (SCMs) replaces clinker or cement in concrete and supports sustainability goals by reducing the environmental impact of construction. The use of SCMs in concrete was implemented across all SRL East sites, which enabled significant reductions in greenhouse gas emissions.

Our Initial and Early Works contractor identified opportunities to increase the levels of SCM in concrete for the following works:

- Construction of the Box Hill bridging structure: 52 per cent SCM = Reduction of 48 tonnes of CO_2 emissions, equating to a 42 per cent decrease in emissions
- Stabling facility D-wall: 70 per cent SCM = Reduction of 1935 tonnes of CO_2 emissions, equating to a 59 per cent decrease in emissions
- Stabling facility guide wall: 30 per cent SCM = Reduction of 165 tonnes of CO_2 emissions, equating to a 27 per cent decrease in emissions
- The Burwood Southern Tunnel Access Shaft utilised a 35 per cent SCM concrete mix for 81 reinforced piles and a 68 per cent SCM concrete mix for 81 unreinforced piles.

The Tunnels South contractor has identified opportunities to decarbonise precast tunnel lining by minimising Portland cement and using 100 per cent renewable electricity for manufacturing. The contractor will work with its precast supplier to complete an independently verified environmental product declaration (EPD) to enable comparison and benchmarking throughout industry. In an Australian first, Tunnels South will use a cementless grout for 2.2km of the tunnel.

Both Tunnels North and Tunnels South contractors continue work with leading researchers to identify and test opportunities for cement reduction and replacement, including geopolymer trials, the use of high-volume fly ash, calcined clay and opportunities for dematerialisation.

Keeping materials in use for longer

SRLA aims to reduce the environmental impact of materials used by embedding circular economy principles in our work. Our contractors identify ways to reuse and recycle materials wherever and whenever possible.

One example is the reuse of demountable sheds that were set up for temporary use at the train stabling facility site in Heatherton. Following their use they have been donated to the local Scouts Victoria group in Dandenong. The local Scouts group has used the sheds for additional storage space, a meeting area, facilities for its community events, camps and training activities.

By maximising recycled materials in early construction, SRL is supporting the transition to a circular economy. The use of recycled materials requires collaboration with suppliers, effective quality control and early engagement with design and construction teams.

Recycled materials

Clayton recycled asphalt pavement (RAP) at Remembrance Gardens

Recycled asphalt pavement (RAP) is old asphalt pavement mixed with aggregates like crushed rock. This reduces the amount of virgin material required for asphalting, reduces waste to landfill and helps decrease the environmental footprint of asphalt production. A 15 per cent RAP mix was used at Clayton Remembrance Gardens.

Sustainable site establishment

In partnership with social enterprise Assembled Threads, 100 per cent recycled silt socks have been manufactured for sediment management along the southern section of SRL East tunnels. These silt socks are made from recycled plastic sourced from old hoarding fabric, and provide significant environmental and social benefits, diverting waste from landfill, creating local employment for women from CALD communities, and supporting Australian conservation projects.

Clayton PaveBase excavation backfill

Sand is the second most used natural resource on Earth after water, and global demand for sand in construction is upwards of 50 billion tonnes per year, far exceeding the rate at which it can be generated.

Sand mining from marine and river environments significantly impacts ecosystems and biodiversity.

SRL East is reducing the use of sand, and is therefore minimising sand mining that impacts ecosystems, by using PaveBase. 3,563 tonnes of Pavebase were used at Clayton for backfilling water works. PaveBase is an aggregate material typically used as the layer underneath concrete or asphalt. It usually consists of crushed rock, gravel and sometimes, recycled concrete, providing a stable foundation for the surface layer. The material is designed to enhance the strength, drainage, and durability of the entire pavement structure. By utilising materials that would otherwise be discarded, SRLA is reducing construction and demolition waste, helping create a circular economy in the construction industry.

SRL East will divert at least 95 per cent of construction and demolition waste from landfill, keeping materials in use for longer and maximising reuse.

New life for tyres

Our Tunnels South contractor is trialling pedestrian and delineation barriers made from recycled tyres – a Victorian first – to reuse this challenging waste stream and provide learnings to help develop new end markets. Up to one third of end-of-life tyres end up in landfill or are buried or stockpiled in Australia.

Increasing resource recovery through recycling, reuse and repurposing minimises the environmental and human health risks associated with used tyres.

Recycled rubber barriers are delivered to SRL East construction sites.

Relocation of utilities and services beneath the Clayton rail viaduct

Victoria's Recycled First Policy

The Recycled First Policy supports the Victorian Government's circular economy strategy, Recycling Victoria – a 10-year plan to overhaul the state's recycling sector, grow domestic recycling capabilities and fuel innovation.

Since March 2020, all tenderers on Victorian major transport projects have had to demonstrate within their bids how they will optimise the use of recycled and reused materials at the levels allowed under current standards and specifications.

SRLA's contractors are now reporting against their commitments made at bid phase and exploring opportunities to trial new innovative products and opportunities to boost recycled and reused material quantities.

Gardiners Creek revegetation planting

Environmental protection and enhancement

In 2024, SRLA in partnership with local councils commenced a tree canopy replacement program. SRLA and Whitehorse City Council signed an agreement for council to plant trees across the municipality to ultimately provide double the tree canopy removed due to SRL East construction works.

The first 250 native trees have been planted along Gardiners Creek and Blackburn Creeklands corridor, creating new habitats for local insects, birds and wildlife, and improving the trails where locals ride, walk and run.

In partnership with Whitehorse City Council, the trees have been grown from locally collected seeds, so they are suited to the local area and more resilient to climate change.

In partnership with local councils and community groups, over 1300 native trees and shrubs have been planted along the SRL East alignment. Native tree and shrub planting enhances neighbourhoods, improves biodiversity, increases climate resilience and creates habitats for native wildlife.

Two planting days were held in 2024

In collaboration with Kingston City Council, our Initial and Early Works contractor and SRLA planted approximately 600 local indigenous plants on the coastal sand dunes at Edithvale Beach and undertook weeding to make way for new plant growth and prevent weeds infesting the area. These plants helped to stabilise the dune area and improve the appearance of the beach foreshore. This planting has improved the local environment for the Kingston municipality, which will be home to the SRL station in Cheltenham and the train stabling facility in Heatherton.

As part of the Gardiners Creek Biodiversity Corridor Revegetation Project at Gardiners Creek, known by the Wurundjeri Woi-wurrung people as KooyongKoot (translating as ‘haunt of the waterfowl’), SRLA and Laing O’Rourke employees and the KooyongKoot Alliance planted indigenous plants to enhance and sustain the biodiversity corridor. The teams also targeted restoration works on Gardiners Creek Reserve and its banks, upstream from the Burwood SRL site. This involved planting more than 650 plants, watering, mulching and weeding.

Social impact

Our approach to sustainability includes community and social legacy. Social impact achievements reflect a commitment to supporting and building local capability, creating a diverse and inclusive work environment, and ensuring equitable representation across the project workforce.

In 2024, Suburban Connect secured 99 per cent local content , and engaged 25 social benefit suppliers, consisting of:

- 17 certified Victorian Aboriginal businesses
- 11 certified Victorian social enterprises

The top four most common roles filled by women on Tunnels South are all in engineering and project management of construction.

On Initial and Early Works, as of November 2024 women represented 30 per cent of Laing O’Rourke staff, 31 per cent of its senior management roles and 45 per cent of non-traditional roles – all above industry averages. Across Initial and Early Works, 51 social benefit suppliers have been engaged, consisting of:

- 34 certified Victorian Aboriginal businesses
- 17 certified Victorian social enterprises

SRLA is tracking commitments for employing women, Aboriginal people living in Victoria, and Victorian priority jobseekers, which are all on track and growing as the project advances.

Total Surveying Solutions – Aboriginal business

Wherever possible, SRL East contractors seek to identify and support businesses that are doing things differently. A partnership with Total Surveying Solutions (TSS) is the largest package of works awarded to a social benefit supplier for the project to date.

TSS provided onsite surveying solutions, in particular assessing piling work at Burwood, which led to creating career pathways for Aboriginal people interested in surveying.

This business combines the latest surveying and geospatial technology solutions and equipment, with innovative ideas and actions to create inspiration for their team and value for SRL East.

OC Connections Enterprises – Sustainability and inclusivity

OC Connections is a pioneer in eco-friendly products, and a champion of inclusivity by providing meaningful employment opportunities to a skilled workforce living with disability.

A standout example of their work is their locally made eco-bollards, meticulously crafted from 100 per cent recycled materials. Suburban Connect has contracted OC Connections for bollard supply for the project.

Future activities

Construction of SRL East is continuing in 2025 with crews building TBM launch sites in Burwood and Clarinda, building eastern and western tunnel entrances in Heatherton, and starting major construction in Clayton. Works will also begin on the emergency support facility in Mount Waverley and continue on network and power support facilities in Burwood, Heatherton and Monash.

The two SRL East tunnelling contractors, Suburban Connect and Terra Verde, are preparing for tunnelling - TBMs have been ordered and will start arriving from late 2025.

Tunnelling will start in 2026. Suburban Connect will build the 16-kilometre southern section of the twin tunnels between Cheltenham and Glen Waverley, while Terra Verde will build the 10 kilometres of tunnels between Glen Waverley and Box Hill.

Two consortia have been shortlisted for the Linewide Alliance contract to build the fleet of high-tech SRL trains and signalling system, and to operate and maintain the SRL East network. Three bidders have been shortlisted to build the six SRL East stations.

Planning for the future of SRL precincts will continue to ensure the neighbourhoods around the SRL East stations are vibrant and thriving communities. Underpinned by extensive consultation, draft structure plans and draft planning scheme amendments were released in 2025. Structure plans and planning scheme amendments are expected to be finalised in 2026.

SRLA will continue to support sustainability outcomes across all work packages in procurement, design and delivery, with exciting new opportunities to shape sustainable communities in SRL precinct planning.

Site works at Heatherton to prepare for tunnel access structure construction.

Appendix A: Meeting our requirements – sustainability reporting

SRLA has set requirements on its sustainability disclosures to drive accountability, transparency and positive outcomes for the community and environment.

The appendices of this report are written to demonstrate how SRLA is meeting its sustainability reporting requirements. These requirements are set out by several sustainability rating tools – particularly the Infrastructure Sustainability Council (ISC) Rating Scheme for this stage of the SRL East project. Sustainability reporting requirements are based on the Infrastructure Sustainability Council of Australia IS v2.1 (or later) – Gold rating – for infrastructure scope.

Scope of reporting

As part of the IS Rating Scheme, SRLA is required to publicly report on its sustainability performance each year, no later than six months after the end of the reporting period, that is by 30 June 2025. The data presented in this report cover the calendar year 1 January 2024 to 31 December 2024. This report covers all packages of works which have been contracted for more than six months during the 2024 calendar year. The purpose of data presented in this report is to communicate the impacts of the project on SRLA's material sustainability objectives and targets. Sustainability performance is presented for individual work packages as well as for the project as a whole.

Reporting has commenced for three work packages that have been initiated for this project - Initial and Early Works, Tunnels South and Tunnels North. Additional work packages will be required to report on sustainability as contracts are awarded in the future. Future packages will include two works packages to build the SRL East stations, and a Linewide package to build the fleet of high-tech SRL trains and signalling system, and to operate and maintain the SRL East network.

Data collection

The information presented in this report is based on sustainability reports provided to SRLA by work package contractors responsible for delivering Initial and Early Works, Tunnels South and Tunnels North. Please note Tunnels North does not have any sustainability data to share for 2024 as the contract was only recently awarded. SRLA has established a framework for sustainability reporting which requires contractors to complete monthly, 3-monthly and 6-monthly sustainability reports. This ensures consistency in sustainability reporting to SRLA, in accordance with SRLA's Environmental Management System, sustainability rating tools, SRLA's sustainability objectives and targets, as well as contractual targets to drive improvements and innovation in sustainability performance. Sustainability reporting enables SRLA to track progress on sustainability targets on a regular basis and identify where performance targets may be at risk.

The information presented in this report includes both measured and estimated data for construction and operational impacts. This includes quantitative data measured during on-site audits and sourced from relevant documentation such as Bills of Quantities (BoQ).

Due to the early stage of the project, there are some instances where quantitative measured data are not yet available for some performance metrics. To provide information on SRLA's progress towards these metrics, estimated data have been provided in footnotes where available. Footnotes provide context on how estimated data have been calculated, including any assumptions that have been made as the basis of calculations. Some estimated data provide a forecast of how the project expects to perform on a given performance metric by the end of project completion, based on the latest information and modelling available from design or construction planning information. The purpose of forecasted estimated data is to demonstrate that sustainability initiatives have been identified and integrated into the design of the project.

For each sustainability focus area, SRLA has established internal procedures and guidelines to increase the accuracy, comparability and verifiability in data collection, calculations and analysis. These documents are aligned with international best-practice standards set by organisations such as ISO, PAS or Australian Standards, where applicable. For example, the SRL East Carbon Management Procedure is designed to ensure that carbon emissions calculations are accurately and consistently captured between different work packages.

Data have been subject to SRLA's internal systems and controls to verify the accuracy and quality of data. This includes engaging with contractors to clarify the basis for calculations and assumptions for estimated data. The basis for calculations is in the footnotes below data tables. The status of sustainability performance presented in this report is cumulative and accurate as of December 2024. We aim to achieve all listed construction targets by the end of construction in 2028.

The quality and content of this report has been independently audited by a Suitably Qualified Professional (SQP) . The SQP considers the Global Reporting Initiative (GRI 2021) principles to evaluate the report. The GRI principles include balance, clarity, comparability, completeness, sustainability context, timeliness and verifiability.

Appendix B: Sustainability performance reporting

This section details reporting requirements for three work packages that have been initiated for this project - Initial and Early Works, Tunnels South and Tunnels North.

Please note, status categories have been updated since the publication of the 2023 Annual Sustainability Report to better reflect package applicability and stage of delivery.

GRI principles statement

This report has been prepared to align with the principles for sustainability reporting published in the latest version of the GRI guidance (2021). The GRI (2021) principles support high-quality sustainability reporting to enable the reader to make informed assessments and decisions on the impacts of the project and its contribution to sustainable development. The GRI (2021) reporting principles include balance, clarity, comparability, completeness, sustainability context, timeliness and verifiability. To satisfy the balance principle, this report aims to provide information in an unbiased way and provide a fair representation of the positive and negative aspects of the project's performance.

SRL East is the first stage of a multi-decade, city and state-shaping program of investment that provides an opportunity to transform Victoria's public transport system and sustainably support an expected significant increase in population. Sustainability is at the forefront of the design, delivery and operation of the project. This approach has enabled the project to achieve various positive outcomes highlighted in Section 4.

As a major public transport infrastructure project, there are several sustainabilitychallenges for the project relating to energy and carbon, water, materials and waste, and resilience and climate change. Challenges include the following:

- Construction of SRL East involves vast quantities of steel and concrete, which typically have high amounts of embodied carbon.
- Building 26 kilometres of twin tunnels and new stations requires inputs of energy and water to operate TBMs and other construction equipment.
- Significant quantities of resources used on the project need to be managed efficiently to avoid increasing pressure on scarce resources and prevent waste from entering landfill.
- Climate change and natural hazards may reduce the resilience of SRL East due to risks associated with heavy rainfall and flooding, extreme heat, storms, drought and ambient carbon dioxide increase.
- In demolition and construction, management of contaminated material can pose risks to both human an environmental health[5].

The identification of these challenges allows SRLA to mitigate negative impacts and reduce environmental harm. The data presented below provides information on the status of the project's sustainability performance during the reporting period. It also provides commentary in footnotes to identify both positive and negative impacts of the project against targets, and any additional context for the reader to consider.

[5] Management of contaminated material is covered by the IS rating scheme. Requirements specific to Rso-2 are managed through the EPRs C1-C8 including the development of a Contaminated Land Management Plan and therefore are not detailed in this report.

Status Legend

These icons represent the following qualitative descriptors for progress status.

NA

Not applicable to scope of current work packages and will be reported in subsequent years

Due to the current scope, these objectives and targets do not apply

NS

Not started

Actions to meet this target/ objective have not started due to delivery stage

Progressing

Actions to meet this target/ objective are underway

Well progressed

Target/objective on track to be met

At risk

Target/objective is at risk of not being met by project completion

Leadership

Objectives:

- Sustainability rating systems will be used to drive, verify, and benchmark progress in sustainability during planning, design, and construction.
- SRLA will work with delivery partners and stakeholders to develop innovative approaches, technologies, and industry capacity in particular to realise emission reduction opportunities.

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Leadership sustainability data for Initial and Early Works, Tunnels South and Tunnels North

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
Infrastructure Sustainability Council of Australia IS v2.1 (or later) - Gold rating - for infrastructure scope	IS rating	Rating points achieved	Gold (60+ points)	**Initial & Early Works**	NA	
				Tunnels South	✓ [6]	✓ [7]
				Tunnels North	NS	✓ [8]
Green Building Council of Australia Green Star Buildings v1A or later - minimum 5 Star rating - for each station and Operational Control Centre	GS rating	Rating points achieved	5 Star Green Star (70+ points)	**Initial & Early Works**	NA	
				Tunnels South		
				Tunnels North		
National Australian Built Environment Rating System (NABERS) Energy rating of 6-star for the Operational Control Centre	NABERS Energy rating	Rating points achieved	6 Star	**Initial & Early Works**	NA	
				Tunnels South		
				Tunnels North		

[6] The Tunnels South contract was awarded in December 2023, at which point the IS Rating Process commenced.
[7] The project provides a pathway to achieve the IS Rating target of minimum 60 points and has submitted a base case proposal to ISC for verification in December 2024.
[8] The Tunnels North contract was awarded in November 2024, at which point the IS 'Design' Rating process commenced.

Status Legend: NA Not applicable NS Not started ✓ Progressing ✓ Well progressed ⚠ At risk

Energy & carbon

Objectives:

- In line with Victoria's Climate Change Strategy (2021), SRL East will reduce energy use and carbon emissions during construction and operation. SRL East will support innovative and cost-effective approaches to passive design, energy efficiency, on and off-site renewable energy sources and procurement.

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Energy & carbon sustainability data in construction for Initial and Early Works, Tunnels South and Tunnels North

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
In construction: Reduce upfront or embedded emissions from materials and the supply chain by at least 20% and develop the market's low carbon construction capabilities	Percentage reduction - Embodied emissions	%	20%	**Initial & Early Works**	NA	
				Tunnels South	NS	✓ [9]
				Tunnels North	NS	NS
	Investigations / innovative low carbon materials	Y/N		**Initial & Early Works**	Y [10]	Y [11]
				Tunnels South	NS	Y [12]
				Tunnels North	NS	NS
In construction: 20% reduction in Construction greenhouse gas (GHG) emissions	Percentage reduction - Construction emissions	%		**Initial & Early Works**	✓ [13]	✓ [14]
			20%	**Tunnels South**	NS	✓ [15]
				Tunnels North	NS	NS
In construction: All electrical fixed construction plant (i.e. site accommodation, lighting, ventilation, water treatment plant) to be powered with 100% renewable electricity	Percentage renewable electricity used for fixed construction plant	%	100%	**Initial & Early Works**	✓ [16]	✓ [17]
				Tunnels South	NS	✓ [18]
				Tunnels North	NS	NS

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
In construction: All tunnel boring machines (TBMs) to be powered with 100% renewable electricity	Percentage renewable electricity used for TBM	%	100%	Initial & Early Works	NA	
				Tunnels South	NS	✓ [19]
				Tunnels North	NS	NS
In construction: Maximise the use of electrical construction plant	Total electric construction plant and equipment	#		Initial & Early Works	NS	✓ [20]
				Tunnels South	NS	✓
				Tunnels North	NS	NS
In construction: Maximise the use of alternative low carbon fuel sources	Percentage low carbon fuels	%		Initial & Early Works	✓ 2.61% [21]	✓ 2.15% [22]
				Tunnels South	NS	NS
				Tunnels North	NS	NS
In operations: Minimum 20% reduction in operational energy use	Percentage reduction against designed operational energy use target	%	20%	Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
In operation: All rail infrastructure, stations and buildings shall be powered with 100% renewable electricity, in line with Victorian Government commitments	Percentage operational energy use from renewable electricity (onsite)	%		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
	Percentage operational energy use from renewable electricity (offsite)	%		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
In operations: In operation: SRL East buildings and rail infrastructure will be designed to operate fossil fuel free	Percentage operational energy use offset	%		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
In operation: A minimum of 20% energy for stabling facility operation shall be sourced from onsite renewable sources	Percentage operational energy use from renewable electricity (on-site) for Stabling Yard	%		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
In operation: SRL East will be carbon neutral in operation and SRL will prepare a Carbon Neutrality Strategy for operations, using Australian Carbon Credit Units (ACCUs) or other equivalent quality offsets recognised by the Victorian Government	Percentage reduction GHG - Operations	%		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
	Percentage operational energy use offset	%		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		

Status Legend: NA Not applicable NS Not started ✓ Progressing ✓ Well progressed ⚠ At risk

[9] Tunnels South, embodied carbon calculations, 2023: Due to the early stage of the project, reliable quantitative data are not yet available for this metric. Energy modelling has been submitted to SRLA as part of a Sustainability Specialist Report, where embodied emissions were estimated based on Scope 3 emissions. Current modelling forecasts a 27% reduction in embodied emissions for the project. Please note this value is an estimation and serves as an indicator for progress tracking purposes only. Data may be updated and refined as the project progresses towards completion.

[10] Initial and Early Works are identifying initiatives to increase recycled content and therefore reduce embodied emissions: Actions in 2023 include the train stabling facility site utilising over 6,000 tonnes of crushed concrete and initiated piling with 70%+ SCM concrete. The project increased its overall recycled content by mass to 81%.

[11] Initial and Early Works are identifying initiatives to reduce embodied emissions: Actions in 2024 include using 6,000 tonnes of 100% recycled crushed concrete in the train stabling network support facility, leading to a 61.17% in emission reduction at the train stabling facility, using 7,558m^3 of 70% SCM concrete for train stabling facility D-Walls, using recycled concrete and Pavebase to backfill pipe excavation in Clayton, recycled FODS mats installed at Clayton, reuse of fill material from another Laing O'Rourke project at Site 1 in Burwood, 15% RAP Asphalt used in Clayton and mudstone from the sewer shafts were reused for the base of haul road in Box Hill Gardens.

[12] A Plan has been developed to investigate opportunities to maximise resource efficiency, recycled products and circular economy initiatives. The plan has been most recently updated in January 2025. Current investigations include using recycled rubber barriers for Clarinda Recycling Facility site establishment (an Australian-first initiative), the most effective measures to reduced embodied emissions in the precast concrete supply chain, including mix design and manufacturing energy consumption. Ongoing activities include integrating recycled materials into design and procurement, including recycled crushed concrete aggregate.

[13] Initial and Early Works, construction emissions reduction, 2023: Please note that due to scope of the package, the 20% target for emissions reduction during construction does not apply to this package. Instead, the package includes a contractual requirement for the managing contractor to reduce non-electrical energy use for the Works during construction by a minimum of 10%. As of December 2023, the project to date substituted 15.2% of non-electrical energy through the purchase of accredited carbon offsets that contribute to renewable energy projects and use of alternative fuels. Please note that to supplement renewable energy initiatives, the project has purchased a 10% emissions offset for the project, which has contributed to the majority of non-electrical energy use reductions.

[14] Initial and Early Works, construction emissions reduction, 2024: Please note that due to scope of the package, the 20% target for emissions reduction during construction does not apply to this package. Instead, the package includes a contractual requirement for the managing contractor to reduce non-electrical energy use for the Works during construction by a minimum of 10%. As of December 2024, the project to date substituted 10.9% of non-electrical energy through the purchase of accredited carbon offsets that contribute to renewable energy projects and the use of alternative fuels. Please note that to supplement renewable energy initiatives, the project has purchased a 10% emissions offset, which has contributed to the majority of non-electrical energy use reductions.

[15] Tunnels South, construction emissions reduction, 2024: due to the early stage of the project, measured quantitative data are not yet available for this metric. Early energy modelling submitted to SRLA by the contractor estimates a 43% reduction in construction emissions by project completion. Data have been calculated using the method outlined in the IS v2.1 Rating Tool for the credit Ene-1 (Energy Efficiency and Carbon Reductions). Please note this value is an estimation and serves as an indicator for progress tracking purposes only. Data may be updated and refined as the project progresses towards completion.

[16] Initial and Early Works, renewable energy for fixed construction plant, 2023: The project has used 100% GreenPower for electricity for in the Initial Works, Early Works and Other Works construction, to date, including site offices and electric plant and equipment. Please note that during project startup in 2022, site offices were established with grid connection but without 100% GreenPower retailer agreements. For the last quarter of 2022, offices were operating on non-GreenPower retailer agreements, and through the start of 2023, on 25% GreenPower. Although this has changed to total 100% Greenpower plans in the second quarter of 2023, the missing period of GreenPower gave the project a less than 100% renewable source of electricity. This was rectified with the back purchase of decoupled large-scale generation certificates, the GreenPower certificate.

[17] Initial and Early Works, renewable energy for fixed construction plant, 2024: the project has used 100% GreenPower for electricity for in the Initial Works, Early Works and Other Works construction to date, including site offices and electric plant and equipment.

[18] Tunnels South, renewable energy for fixed construction plant, 2024: Due to the early stage of the project, measured data are not yet available for this metric. The project is on track to achieve 100% of renewable electricity used for the fixed construction plant. The electrical supply procurement package is to be issued early 2025, and early engagement has included pricing of GreenPower. There is also a potential opportunity to engage a social benefit supplier.

[19] Tunnels South, renewable energy used in TBM, 2024: Due to the early stage of the project, measured quantitative data are not yet available for this metric. Energy modelling has been submitted to SRLA, which forecasts the project to be on track to supply 100% renewable energy for the tunnel boring machine by project completion.

[20] Initial and Early Works trialled the use of a 2.6t electric telehandler in 2024. The telehandler contributed to lowering emissions as well as providing noise reduction benefits.

[21] Initial and Early Works, low carbon fuels, 2023: Please note that this figure does not include offset contributions to help achieve target construction emissions reductions.

[22] Initial and Early Works, low carbon fuels, 2024: Please note that this figure does not include offset contributions to help achieve target construction emissions reductions.

Water

Objectives:

- SRL East will be designed to minimise the use of potable water, and maximise opportunities for reuse of rainwater, stormwater, wastewater and groundwater.
- All above ground sites will be designed to deliver integrated water management (IWM) solutions and water sensitive urban design (WSUD).

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Water sustainability data for Initial and Early Works, Tunnels South and Tunnels North

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
10% potable water replaced with non-potable water during construction	Percentage construction water from non-potable sources	%	10%	Initial & Early Works	NS	✓ [23]
				Tunnels South	NS	✓ [24]
				Tunnels North	NS	NS
10% potable water replaced with non-potable water during operation	Percentage operational water from non-potable sources	%	10%	Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
45% potable water operational demand reduction (Stations)	Operational demand reduction (Station) of potable water	%	45%	Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
80% potable water replaced with non-potable water (stabling facility train wash)	Replacement potable water with non-potable water at Stabling Yard Train Wash	%	80%	Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
Stormwater management [25]	Qualitative summary of the status of the Stormwater Management EPR SW5	Qualitative summary		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		

[23] Please note that due to the scope of works this target does not apply to Initial and Early Works. However, the project is required to implement initiatives to reduce potable water and/or improve water efficiency. Water saving initiatives include use of compound rainwater tanks, water treatment plant recycling, water re-use in drilling and use of an external water tank (Monash Demolition).

[24] Data sourced from monthly sub-contractor reports. Water use during construction to date includes potable water, non-potable on-site reused water, non-potable on-site rainwater, non-potable recycled water (e.g. purple pipe) and any other non-potable, non-recycled water uses reported by the subcontractor. The first recorded reading of non-potable construction water usage was taken in November 2024. The contractor is in the process of procuring a water treatment plant and rainwater tanks to increase the proportion of construction water coming from non-potable sources. The contractor is also investigating a purple pipe connection to increase use of recycled water. Water modelling has been undertaken as part of the IS rating process and has developed a forecast of water consumption by the end of the project which indicates there is a risk to achieving a 10% potable water replacement. Further testing is underway to confirm the volume of reused water that can be used in the TBMs.

[25] EPR SW5 relates to the permanent long-term design and operation of SRL East and does not apply to Initial and Early Works or Tunnels packages.

Status Legend: NA Not applicable NS Not started ✓ Progressing ✓ Well progressed ⚠ At risk

Materials & waste

Objectives:

- SRL East will reduce the environmental impact of material use by embedding a circular economy philosophy and exploring opportunities for reducing embodied impacts of materials selection.
- Material resource efficiency in the design, construction and operational phases will be pursued, along with opportunities for reducing the embodied impacts in material selection and maximising the beneficial reuse of spoil and other waste materials.

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Materials and waste sustainability data for Initial and Early Works, Tunnels South and Tunnels North

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
Operational waste: Recycle or reuse 80% of the waste generated during operations	Design to enable 80% of waste to be diverted from landfill	%		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
60% by volume of office waste (includes paper, cardboard, plastics and food waste) is diverted from landfill	Percentage office waste diverted from landfill	%	60%	Initial & Early Works	✓ 74%[26]	⚠ 54%[27]
				Tunnels South	NS	⚠ 30%[28]
				Tunnels North	NS	NS
Reduce waste during the construction phase: Divert at least 95% of construction and demolition waste from landfill, and reuse topsoil and fill where possible	Topsoil and fill - total reused	%		Initial & Early Works	✓ 98%[29]	✓ 98%[30]
				Tunnels South	NS	NS
				Tunnels North	NS	NS
	Percentage inert / non-hazardous waste diverted from landfill	%		Initial & Early Works	✓[31]	✓ 93%[32]
				Tunnels South	NS	✓[33]
				Tunnels North	NS	NS

Status Legend: NA Not applicable NS Not started ✓ Progressing ✓ Well progressed ⚠ At risk

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
Reducing the amount of cement in concrete by at least 35%	Percentage reduction Portland cement from base case	%	35%	Initial & Early Works	NA[34]	
				Tunnels South	NS	✓[35]
				Tunnels North	NS	NS
Measuring and reducing material lifecycle impacts by at least 15%, as measured by the appropriate IS or Green Star materials lifecycle calculator	Percentage reduction lifecycle impacts of materials	%	15%	Initial & Early Works	NA	
				Tunnels South	NS	✓[36]
				Tunnels North	NS	NS
80% steel shall be sourced from responsible makers	Percentage reinforcing steel (Permanent Works) sourced from certified suppliers	%	80%	Initial & Early Works	NA[37]	
				Tunnels South	NS	NS
				Tunnels North	NS	NS
95% timber shall be sourced from certified source or reused	Percentage timber sourced from certified source or reused	%		Initial & Early Works	NA[38]	
				Tunnels South	NA	
				Tunnels North		
Other/Seek opportunities to include recycled and reused content via the Recycled First Plans and Materials Innovation Plans.	Recycled First Plan submitted	Y/N		Initial & Early Works	Y[39]	Y[40]
				Tunnels South	NS	NS[41]
				Tunnels North	NS	NS

[26] Initial and Early Works, office waste diversion, 2023: Data based on the diversion rate of inert and non-hazardous waste to date, based on subcontractor sustainability reporting. This waste is reported as waste generated by the project office and established site compounds.
[27] Initial and Early Works, office waste diversion, 2024: Data based on the diversion rate of office waste to date, based on subcontractor sustainability reporting. This waste is reported as waste generated by the project office and established site compounds. To address the low office waste diversion rates, the Container Deposit Scheme has been implemented, encouraging office recycling. Data captured and displayed below only encompasses waste streams with significant quantity being collected from site.
[28] Tunnels South, office waste diversion, 2024: Data based on the diversion rate of office waste to date, based on subcontractor sustainability reporting from Melbourne Quarter waste reports (L7, 699 Collins). Please note that these are early data points which are being managed through ongoing waste management and education.
[29] Initial and Early Works, topsoil and fill, 2023: Data based on the diversion rate of clean spoil (general fill) to date, based on contractor sustainability reporting. Clean fill removed from the project was primarily split between the northern project sites; Box Hill, Burwood and Glen Waverley. Clean spoil figures are expected to continue across sites except for the potential for train stabling facility site excavations to affect these values.
[30] Initial and Early Works, topsoil and fill, 2024: Data based on the diversion rate of clean spoil (general fill) to date, based on contractor sustainability reporting. This is due to major works continuing and large amounts of clean spoil being removed. The package has also diverted 93% of non-hazardous waste from landfill during this reporting period.
[31] Initial and Early Works, inert and non-hazardous waste diversion, 2023: Data provided by Contractor states that 97% of inert and non-hazardous waste has been diverted from landfill in the reporting period. This waste is reported through subcontractor reports via their engaged waste contractors and managing contractor engaged waste contractors.
[32] Initial and Early Works, inert and non-hazardous waste diversion, 2024: Data provided by Contractor states that 93.17% of inert and non-hazardous waste has been diverted from landfill in the reporting period. This waste is reported through subcontractor reports via their engaged waste contractors and managing contractor engaged waste.
[33] Tunnels South, inert and non-hazardous waste diversion, 2024: Due to the early stage of the project, measured quantitative data are not yet available for this metric. In 2024, 30kg of inert and non-hazardous waste was diverted from landfill. Please note that data collection commenced in December 2024, and as such this value is an early data point that is unlikely to provide a useful representation of progress. The Contractor has noted that performance is being managed through ongoing management an education.
[34] Due to the scope of works, this target does not apply to the Initial and Early Works package. However, it is noted that the package has implemented several opportunities to maximise Portland Cement reduction by prioritising the use of recycled additives in concrete components where possible.
[35] Tunnels South, Portland cement reduction, 2024: Due to the early stage of the project, measured quantitative data are not yet available for this metric. Based on the current design, the project is estimated to reduce the percentage of Portland cement in concrete by around 50%. Please note these values are estimations and are referenced as indicators for progress tracking purposes only. Data may be updated and refined as the project progresses towards completion.
[36] Tunnels South, reduction in lifecycle impacts of materials, 2024: Due to the early stage of the project, measured quantitative data are not yet available for this metric. Based on the current design, the project is estimated to reduce the percentage of lifecycle impacts of materials by around 27%. Please note that this is a high-level estimate and that a detailed materials model calculation of the total lifecycle impacts of materials (measured using IS EnviroPoints) has not yet been calculated. As such, these values are estimations and are referenced as indicators for progress tracking purposes only. Data may be updated and refined as the project progresses towards completion.
[37] Due to the scope of works, this target does not apply to the Initial and Early Works package. However, it is noted that the package is required to maximise steel from accredited suppliers under the Australian Steel Institute Environmental Sustainability Charter.
[38] Due to the scope of works, this target does not apply to the Initial and Early Works package. However, it is noted that the package is required to source all timber plywood from the Forest Stewardship Council or Australian Forest Certification Scheme.
[39] Initial and Early Works, Recycled First Plan, 2023: The Recycled First Plan has been submitted and is being implemented.
[40] Initial and Early Works, Recycled First Plan, 2024: The Recycled First Plan has been submitted and is being implemented.
[41] Tunnels South, Recycled First Plan, 2024: Please note that the Recycled First Plan is to be submitted in January 2025.

Transport and mobility

Objectives:

- SRL East will promote improved public transport patronage by maximising connectivity and interchange capabilities between modes of transport and walking and cycling.
- Urban design principles, objectives, measures and benchmarks will be implemented to ensure active transport is prioritised and the design of the public realm spaces maximises connections to precinct walking and cycling routes.
- Opportunities for electric bike charging

infrastructure will be considered in the detailed design stage.

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Transport and mobility sustainability data for Initial and Early Works, Tunnels South and Tunnels North

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
15% of parking at the Stabling Facility is dedicated to (and marked for) fuel-efficient vehicles (<5L/100km efficiency), with a minimum of 5% for motorcycle parking	Percentage parking dedicated to fuel efficient vehicles	% (# spaces)	15%	Initial & Early Works Tunnels South Tunnels North	NA	
5% of parking at the Stabling Facility is dedicated to electric vehicles (EV's) and charging infrastructure is provided for each space	Percentage parking dedicated to electric vehicles	% (# spaces)	5%	Initial & Early Works Tunnels South Tunnels North	NA	
Provision of infrastructure at each station cycle hub to allow at least 5% of cycle parking spaces to charge electric bicycles at the same time at Day 1, with future allowance to allow at least 10% of parking space to charge electric cycles at the same time	Percentage bicycle spaces dedicated to electric bicycle charging points (Day 1)	% (# spaces)		Initial & Early Works Tunnels South Tunnels North	NA	

Status Legend: NA Not applicable NS Not started Progressing Well progressed At risk

Community and social legacy

Objectives:

- SRL East will create jobs and add significant social and economic value to the Victorian economy.
- SRL East will promote equity, diversity and inclusion and deliver a legacy of skills, learning, expertise, and experience.
- SRL East will provide a positive legacy to the local and wider community. Ongoing engagement is integral to SRL East's development.
- SRL East will minimise negative impacts on the community and local businesses during construction and operation.
- SRLA and its contractors will maximise opportunities for employing under-represented groups and procuring from Social Benefit Suppliers.
- Support the Victorian Government's commitment to social procurement, gender equality and Aboriginal self-determination.

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Community and social legacy sustainability data for Initial and Early Works, Tunnels South and Tunnels North[42]

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
Identify places of historical and cultural significance and commit to put in place appropriate protection and interpretation strategies	Development of strategies to protect and interpret heritage / culture and achievement against these	# spaces		Initial & Early Works	NA	
				Tunnels South	NS	✓[43]
				Tunnels North	NS	✓
Develop project wide legacy aspirations and outcomes that leverage benefits for the local community, including local Aboriginal peoples	Development of legacy targets with community / indigenous groups	Qualitative summary		Initial & Early Works	NS	✓
				Tunnels South	NA	
				Tunnels North	NA	

[42] SRLA is responsible for its own target to actively engage with Aboriginal community and Traditional Owners on SRLA-wide matters. Traditional owners are a key project stakeholder on impacts to Country.

[43] Tunnels South, Community and Social Legacy Sustainability Data, 2024: Please refer to Social Procurement and Stakeholder reporting requirements to SRLA including Social Impact Annual Report 2024.

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
Support job creation for priority groups and add value to Victoria's economy by supporting social benefit suppliers	Support towards job creation for priority groups and of social benefit suppliers	Qualitative summary		Initial & Early Works	NA	
				Tunnels South	NS	✓ 43
				Tunnels North	NS	✓
Social Procurement Plans for SRL East will set targets, approaches, and requirements for this objective that are reflective of relevant Government policies including: Victorias Social Procurement Framework, Building Equality Policy, Local Jobs First Policy.	Support towards relevant government policies including; Victorias Social Procurement Framework			Initial & Early Works	NA	
				Tunnels South	NS	✓ 43
				Tunnels North	NS	✓
	Support towards relevant government policies including; Victoria's Building Equality Policy			Initial & Early Works	NA	
				Tunnels South	NS	✓ 43
				Tunnels North	NS	✓
	Support towards relevant government policies including; Local Jobs First Policy.			Initial & Early Works	NA	
				Tunnels South	NS	✓ 43
				Tunnels North	NS	✓
Corresponding commitments and initiatives will be developed with industry, relevant service providers, formally recognised Traditional Owners and community organisations, and will be informed by market analysis. Progress will be monitored through embedded contractual targets and regular reporting	Contractual targets outlined in Project Specifications and Technical Requirements	%		Initial & Early Works	NA	
				Tunnels South	NS	✓ 43
				Tunnels North	NS	✓

Status Legend: NA Not applicable NS Not started ✓ Progressing ✓ Well progressed ⚠ At risk

Health and wellbeing

Objectives:

- SRL East will provide well-designed buildings that are comfortable, accessible, safe, and attractive.
- Buildings will be designed with a high-quality internal and external environment considering acoustic, thermal and visual comfort as well as air quality, promoting health, productivity and occupant wellbeing.

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Health and wellbeing sustainability sata for Initial and Early Works, Tunnels South and Tunnels North

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
Good indoor air quality will be provided to primary workspaces and passenger areas.	Summary of package achievement of Green Star Credit 10	Qualitative summary		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
Natural light will be maximised to station entrances and concourses	Percentage station entrance and concourse with adequate daylight as a proportionw of the primary areas of the building (sqm)	%		Initial & Early Works		
				Tunnels South		
				Tunnels North		
Stabling facility workplaces will have high daylight factors	Percentage Stabling Yard workplace with access to daylight / view	%		Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		

Environmental protection and enhancement

Objectives:

- SRL East will strive to protect and enhance the environment, minimise and control emissions to air, land and water, and better manage the human-environment relationship.
- SRL East will actively seek to avoid, minimise and mitigate environmental harm through compliance with environmental obligations outlined in applicable planning approvals, supported by robust Environmental Management Systems.
- Urban design principles, objectives, measures and benchmarks will be developed and implemented to ensure that opportunities for ecosystem enhancement and green infrastructure are investigated and where possible, habitat created, and biodiversity enhanced to complement connected and adjoining sites.

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Environmental protection and enhancement sustainability data for Initial and Early Works, Tunnels South and Tunnels North

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
Lighting design complies with AS 4282 'Control of the Obtrusive Effects of Outdoor Lighting' and lighting within the public realm to include luminaires that have an upward light output ratio (ULOR) <5%	Percentage external / outdoor lighting that complies with AS 4282	%	100%	Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
	Percentage public realm lighting which has upward light ratio output of <5% (by # fittings)	%	<5%	Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		
SRL East will replace double the amount of tree canopy removed as a result of construction in each local government area by 2050 (refer to the relevant EPR and Tree Canopy Replacement Plan)	Total ratio of tree canopy increase (by 2050)	Ratio / %		–	✓[44]	
				–		
				–		

[44] SRLA is delivering on this target.

Status Legend: NA Not applicable NS Not started ✓ Progressing ✓ Well progressed ⚠ At risk

Resilience and climate change

Objectives:

- SRL East will be designed to be resilient to climate change and natural hazards and to support a resilient transport network that can adapt in changing circumstances.
- To achieve this, SRL East will:
  - Identify and implement adaptation measures to manage climate change and natural hazard risks across design, construction and operations.
  - Investigate opportunities to support or enhance broader resilience of the transport network.
- Delivery partners will:
  - Update the SRL climate change and natural hazards risk assessment and develop an adaptation plan applicable to their scope of work, and
  - Treat all 'very high' and 'high' risks.
- To provide a healthy outdoor environment, and minimise the urban heat island effect:
  - The proportion of the station sites and stabling facility surface areas comprised of vegetation or other reflective features will be maximised.

Aligned United Nations (UN) Sustainable Development Goals (SDGs):

Resilience and climate sustainability data for Initial and Early Works, Tunnels South and Tunnels North

SRL East Sustainability Targets	Metric	Unit	Target	Package	2023	2024
Undertake a climate change and natural hazards risk assessment and develop an adaptation plan applicable to their scope of work	Qualitative summary of status of risk assessment and Climate Change Resilience Plan	Qualitative summary	100%	Initial & Early Works	NA	
				Tunnels South	NS	✓[45]
				Tunnels North	NS	NS
Adaptation measures to treat all 'significant' and 'high' risks are identified and implemented, with no residual 'significant' or 'high' risks remaining after treatment	Identification of climate risks and potential treatment measures	#		Initial & Early Works	NA	
				Tunnels South	NS	✓[46]
				Tunnels North	NS	NS
The proportion of the station sites and stabling facility surface areas comprised of vegetation or other reflective features will be maximised	Percentage of available area covered by vegetation and reflective surfaces			Initial & Early Works	NA	
				Tunnels South		
				Tunnels North		

[45] Tunnels South, Climate Change and Natural Hazard Risk Assessment, 2024: A Climate Change Risk Assessment was completed in Q1 2024 with ongoing integration of risks and mitigation measures. A Climate Change Resilience and Adaptation Action Plan is being prepared for submission in Q1 2025.

[46] Tunnels South, Identification of climate risks and potential treatment measures, 2024: The Climate Change Risk Assessment was prepared in Q1 2024. This assessment identified climate risks and potential treatment measures to treat all 'very high' (equivalent to 'significant') and 'high' risks. Based on the current design, once the project is complete, it is expected to have no residual 'very high' or 'high' risks remaining. Please note that the climate change treatment measures are currently being integrated into design as an ongoing action. For this reason, it is noted that during this time there may be a change in the risk profile of the project, if proposed treatment measures cannot be implemented for unforeseen reasons.

Appendix C: Sustainability objectives and targets development

This report presents the status of performance against our sustainability objectives and targets for SRL East in 2024.

SRLA set ambitious targets in 2022 based on input from stakeholders and the community, as well as technical sustainability assessments. Our objectives and targets guide our design and building guidance for our contractors, to deliver sustainable outcomes across all major works.

Key sustainability milestones

August 2018
SRL project announced

2021
SRL East Reference Design developed including draft sustainability objectives and targets

June 2021
Development of greenhouse gas assessment and review with input from stakeholders

November 2021
EES public exhibition, and Initial and Early Works contract awarded

August 2022
Sustainability objectives and targets finalised

August 2022
Minister's assessment of the EES

September 2022
SRL East planning approval received, EMF and EPR's approved

December 2022
SRLA Sustainability Policy finalised

2023
Sustainability objectives and targets integrated into all major works package contracts

December 2023
SRL East Tunnels South contract awarded to Suburban Connect

August 2024
Published 2023 Annual Sustainability Report

August 2024
Published updated sustainability objectives and targets

November 2024
SRL East Tunnels North contract awarded to Terra Verde

March 2025
SRL East Precinct Structure Plans and Draft Planning Scheme Amendments go to public exhibition

We are here
Publication of the 2024 Annual Sustainability Report

2026
SRL East structure plans and planning scheme amendments expected to be delivered

2035
SRL East trains operating

Appendix D: SRLA sustainability actions, objectives & targets mapped to the United Nations Sustainable Development Goals

Table 1: SRLA 2024 Actions that contribute to the United Nations Sustainable Development Goals (SDGs)

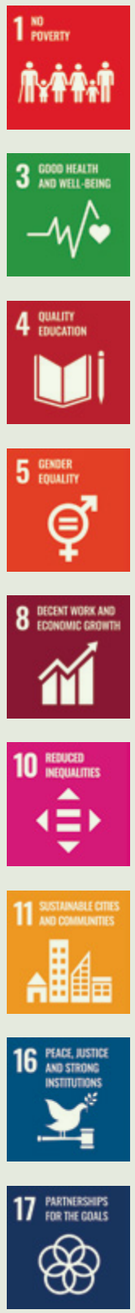
SRLA Sustainability Category	Aligned SDGs	SRLA Sustainability Actions
Leadership	 	– In 2024, SRLA began reporting to achieve an IS v2.1 - Gold rating from the Infrastructure Sustainability Council (ISC) for the tunnelling packages, and continued to work with the Green Building Council of Australia (GBCA) with which we registered the stations in 2021. Registration is for GS Buildings v1A or later - minimum 5 Star rating - for each station and Operational Control Centre (refer to Appendix B: Sustainability Reporting Requirements – Leadership). – Tunnels North has kicked off investigation into geopolymer trials in 'sacrificial' TBM segments, a temporary section of the tunnel which requires removal for construction of the emergency support facility (refer to Section 5. Sustainability Stories – reducing the material's environmental impact – Reducing cement emissions). – As part of SRLA's commitment to leadership in sustainability we are exploring ways to integrate renewable and innovative energy solutions into the project. A detailed feasibility study for implementing geothermal energy in SRL East is underway, and regardless of the findings, we will release information that will provide vital learnings for the industry to support its development (refer to Section 5. Sustainability Stories – Reducing energy use and carbon emissions – Leading the energy transition – exploring geothermal).
Energy & carbon	    	– Tunnels South has procured electric plant and equipment for a range of applications, such as passenger vehicles and forklifts, and solar-powered caravans have contributed to saving an estimated 30,000 litres of petrol (refer to Section 5. Sustainability Stories – Reducing energy use and carbon emissions). – In 2024, it was confirmed that two of the TBMs for SRL East will come to Victoria after helping build Sydney Metro and significantly reducing the carbon footprint of the works (refer to Section 5. Sustainability Stories – Innovations in tunnel boring).
Water	   	– SRLA has set a minimum project target of 10 per cent potable water to be replaced by non-potable water during construction and operation, with further targets applied to station buildings and the stabling facility. Water use is currently being reduced on worksites by applying polymer binders to excavated soil. This reduces the need for water carts and mitigates the impacts of dust around the site and on the community (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Staying water wise). In 2024, Tunnels South used 420kL of non-potable water sources during construction to reduce use of potable water sources (refer to Appendix B – Water).

SRLA Sustainability Category	Aligned SDGs	SRLA Sustainability Actions

Materials & waste	
	 
	 
		– Initial and Early Works has diverted 98 per cent of clean spoil and 93 per cent of non-hazardous waste from landfill, and reused topsoil and fill where possible (refer to Appendix B – Materials and Waste).
		– The use of SCMs in concrete was implemented across all Initial and Early Works project sites which enabled significant reductions in greenhouse gas emissions (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Reducing cement emissions).
		– During the design phase, Initial and Early Works identified opportunities to increase the levels of SCM in concrete for the following works:
		  – Construction of the Box Hill bridging structure: 52 per cent SCM = Reduction of 48 tonnes of CO_2 emissions, equating to a 42 per cent decrease in emissions
		  – Stabling facility D-Wall: 70 per cent SCM = Reduction of 1935 tonnes of CO_2 emissions, equating to a 59 per cent decrease in emissions
		  – Stabling facility guide wall: 30 per cent SCM = Reduction of 165 tonnes of CO_2 emissions, equating to a 27 per cent decrease in emissions
		  – The Burwood tunnel boring machine launch site utilised a 35 per cent SCM concrete mix for 81 reinforced piles and a 68 per cent SCM concrete mix for 81 unreinforced piles (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Reducing cement emissions).
		– Initial and Early Works has reused demountable sheds that were set up for temporary use at the train stabling facility in Heatherton. Following their use they have been donated to the local Scouts Victoria group in Dandenong. The local Scouts Victoria group has used the sheds for additional storage space, a meeting area, and facilities for their community events, camps and training activities (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Keeping materials in use for longer).
		– Recycled Asphalt Pavement (RAP) is old asphalt pavement mixed with aggregates like crushed rock. This process reduces the amount of virgin material required for asphalt applications, reduces waste to landfill, and helps to decrease the environmental footprint of asphalt production. A 15 per cent RAP mix at Clayton Remembrance Gardens was used (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Keeping materials in use for longer).
		– 6000 tonnes of recycled crushed concrete were used to carry out the ground improvement works at the stabling facility. This prevented the equivalent of **34.95** tonnes of greenhouse gas emissions being released into the atmosphere (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Keeping materials in use for longer).
		– SRL East is reducing the use of sand, and therefore minimising sand mining that impacts ecosystems by using PaveBase. 3,563 tonnes of Pavebase were used at Clayton for backfilling water works (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Keeping materials in use for longer).
		– Tunnels South is trialling traffic safety barriers made from recycled tyres— a Victorian first— to better understand how projects can beneficially reuse this challenging waste stream and develop new end markets. Up to one third of end-of-life tyres end up in landfill or are buried or stockpiled in Australia (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Recycled materials).

SRLA Sustainability Category	Aligned SDGs	SRLA Sustainability Actions
Transport & mobility	  	*Not applicable to scope of works in 2024, but will be reported on in future years*

SRLA Sustainability Category	Aligned SDGs	SRLA Sustainability Actions

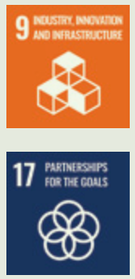
Community & social legacy		– In a world first, one of the crews operating the TBMs for SRL East will be an all-women team. More than 900 applications were received for the crew with applicants from a variety of disciplines (refer to Section 5. Sustainability Stories – Innovations in tunnel boring).
		– In 2024, Suburban Connect secured 99 per cent local content , as well as engaging 28 social benefit suppliers, consisting of:
		  – 17 certified Victorian Aboriginal businesses
		  – 11 certified Victorian social enterprises (refer to Section 5. Sustainability Stories – Social Impact).
		  – The top four roles filled by women on Tunnels South are in engineering and project management of construction (refer to Section 5. Sustainability Stories – Social Impact).
		– On Initial and Early Works, as of November 2024 women represented 30 per cent of Laing O'Rourke staff, 31 per cent of its senior management roles and 45 per cent of non-traditional roles – all above industry averages. Across Initial and Early Works, 51 social benefit suppliers have been engaged, consisting of:
		  – 34 certified Victorian Aboriginal businesses
		  – 17 certified Victorian social enterprises (refer to Section 5. Sustainability Stories – Social Impact).
		– SRLA is tracking commitments for employing women, Aboriginal people living in Victoria, and Victorian priority jobseekers, which are all on track and growing as the project advances (refer to Section 5. Sustainability Stories – Social Impact).

[1]The term Aboriginal acknowledges the formally recognised Traditional Owners of the Country in the project area. The term used in this context is inclusive of Aboriginal and/or Torres Strait Islander peoples who live, work, and learn in the project area.

SRLA Sustainability Category	Aligned SDGs	SRLA Sustainability Actions
Health & wellbeing		*Not applicable to scope of works in 2024, but will be reported on in future years*
Environmental protection & enhancement		– In 2024, SRLA in partnership with local councils commenced the Tree Canopy Replacement Program. SRLA and Whitehorse City Council signed an agreement for council to plant trees across the municipality to ultimately provide double the tree canopy removed due to SRL East construction works. The first 250 native trees have been planted along Gardiners Creek and Blackburn Creeklands corridor, creating new habitats for local insects, birds and wildlife, and improving the trails where locals ride, walk and run. In partnership with Whitehorse City Council, the trees have been grown from locally collected seeds, so they are suited to the local area and more resilient to climate change (refer to Section 5. Sustainability Stories – Environmental protection and enhancement). – In 2024, 1300 native trees and shrubs were planted by our contractors in staff planting days (refer to Section 5. Sustainability Stories – Environmental protection and enhancement). – In partnership with social enterprise Assembled Threads 100 per cent recycled silt socks have been manufactured and used for sediment management along the Tunnels South alignment (refer to Section 5. Sustainability Stories – Reducing material's environmental impact – Recycled Materials - Sustainable site establishment).

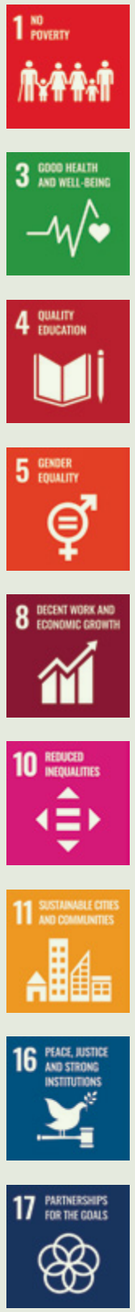
SRLA Sustainability Category	Aligned SDGs	SRLA Sustainability Actions
Resilience & climate change		– SRLA has developed several climate change scenarios for the life of SRL East through to 2150 and is tracking the associated project risks. – Tunnels South has completed a Climate Change Risk Assessment, with ongoing integration of risks and mitigation measures. A Climate Change Resilience and Adaptation Action Plan will also be prepared. – Based on this work, the current design for Tunnels South is expected to have no residual 'very high' or 'high' climate change risks.

Table 2: SRLA Sustainability Objectives & Targets mapped to the United Nations Sustainable Development Goals (SDGs)

SRLA Sustainability Category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Leadership		– Sustainability rating systems will be used to drive, verify and benchmark progress in sustainability during planning, design and construction – SRLA will work with delivery partners and stakeholders to develop innovative approaches, technologies and industry capacity in particular to realise emission reduction opportunities.	**Minimum sustainability ratings of:** – Infrastructure Sustainability Council of Australia IS v2.1 (or later) – Gold rating – for infrastructure scope – Green Building Council of Australia GS Buildings v1A or later- minimum 5 Star rating- for each station and operational control centre – National Australian Built Environment Rating System (NABERS) Energy rating of 6-star for the operational control centre. Contractual targets to drive improvements and innovation.
Energy & carbon		– In line with Victoria's Climate Change Strategy (2021), SRL East will reduce energy use and carbon emissions during construction and operation. SRL East will support innovative and cost effective approaches to passive design, energy efficiency, on and off-site renewable energy sources and procurement.	**In construction:** – Reduce upfront or embodied emissions from materials and the supply chain by at least 20% and develop the markets low carbon construction capabilities – 20% reduction in construction GHG emissions – All electrical fixed construction plant (i.e. site accommodation, lighting, ventilation, water treatment plant) to be powered with 100% renewable electricity – All tunnel boring machines (TBMs) to be powered with 100% renewable electricity – Maximise the use of electrical construction plant – Maximise the use of alternative low carbon fuel sources. An offsets strategy will be developed to consider the role of offsets in further mitigating the construction and upfront emissions footprint. **In operation:** – Minimum 20% reduction in operational energy use – All rail infrastructure, stations and buildings will be powered with 100% renewable electricity, in line with Victorian Government commitments – SRL East buildings and rail infrastructure will be designed to operate fossil fuel free – A minimum of 20% energy for stabling facility operation will be sourced from onsite renewable sources – SRL East will be carbon neutral in operation and SRLA will prepare a Carbon Neutrality Strategy for operations, using Australian Carbon Credit Units (ACCUs) or other equivalent quality offsets recognised by the Victorian Government.

SRLA Sustainability Category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Water		– SRL East will be designed to minimise the use of potable water, and maximise opportunities for reuse of rainwater, stormwater, wastewater and groundwater – All above ground sites will be designed to deliver integrated water management (IWM) solutions and water sensitive urban design (WSUD).	**Potable water usage reduction (Construction and Operation)** – 10% potable water replaced with non-potable water during construction and during operation – 45% potable water operational demand reduction (stations) – 80% potable water replaced with non-potable water (stabling facility train wash). **Stormwater management** The Integrated Water Management Strategy for SRL East sets objectives, targets, and requirements aligned with this objective.
Materials & waste		– SRL East will reduce the environmental impact of material use by embedding a circular economy philosophy and exploring opportunities for reducing embodied impacts of materials selection – Material resource efficiency in the design, construction and operational phases will be pursued, along with opportunities for reducing the embodied impacts in material selection and maximising the beneficial reuse of spoil and other waste materials.	**Operational waste:** – Recycle or reuse 80% of the waste generated during operations – 60% by volume of office waste (includes paper, cardboard, plastics and food waste) is diverted from landfill . **Reduce material's environmental impact** Reduce waste during the construction phase: – Divert at least 95% of construction and demolition waste from landfill, and reuse topsoil and fill where possible. SRLA will reduce the impacts of materials across SRL East by: – Reducing the amount of cement in concrete by at least 35% – Measuring and reducing material lifecycle impacts by at least 15% as measured by the appropriate IS or Green Star materials lifecycle calculator – 80% steel will be sourced from responsible makers – 95% timber will be sourced from certified source or reused. Seek opportunities to include recycled and reused content via the Recycled First Plans and Materials Innovation Plans.

SRLA Sustainability Category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Transport & mobility		– SRL East will promote improved public transport patronage by maximising connectivity and interchange capabilities between modes of transport and walking and cycling. – Urban design principles, objectives, measures and benchmarks will be implemented to ensure active transport is prioritised and the design of the public realm spaces maximises connections to precinct walking and cycling routes. – Opportunities for electric bike charging infrastructure would be considered in the detailed design stage.	– 15% of parking at the stabling facility is dedicated to (and marked for) fuel-efficient vehicles (<5 L/100 km efficiency), with a minimum of 5% for motorcycle parking – 5% of parking at the stabling facility is dedicated to electric vehicles (EVs) and charging infrastructure is provided for each space – Provision of infrastructure at each station cycle hub to allow at least 5% of cycle parking spaces to charge electric bicycles at the same time at Day 1, with future allowance to allow at least 10% of parking spaces to charge electric cycles at the same time.

SRLA Sustainability Category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Community & social legacy		– SRL East will create jobs and add significant social and economic value to the Victorian economy. SRL East will promote equality, diversity and inclusion and deliver a legacy of skills, learning, expertise and experience – SRL East will provide a positive legacy to the local and wider community. Ongoing engagement is integral to SRL East's development – SRL East will minimise negative impacts on the community and local businesses during construction and operation – SRLA and its contractors will maximise opportunities for employing underrepresented groups and procuring from social benefit suppliers – Support the Victorian Government's commitment to social procurement, gender equality and Aboriginal self-determination.	**Legacy** – Identify places of historical and cultural significance and commit to apply appropriate protection and interpretation strategies – Develop project wide legacy aspirations and outcomes that leverage benefits for the local community and local Aboriginal peoples[1] – Actively engage with Aboriginal community and Traditional Owners on SRLA-wide matters – Support job creation for priority groups and add value to Victoria's economy by supporting social benefit suppliers. In addition, the Social Procurement Plans for SRL East will set targets, approaches, and requirements for this objective that are reflective of relevant government policies including: – Victoria's Social Procurement Framework – Building Equality Policy – Local Jobs First Policy. Corresponding commitments and initiatives will be developed with industry, relevant service providers, formally recognised Traditional Owners and community organisations, and will be informed by market analysis. Progress will be monitored through embedded contractual targets and regular reporting.

[1]The term Aboriginal acknowledges the formally recognised Traditional Owners of the Country in the project area. The term used in this context is inclusive of Aboriginal and/or Torres Strait Islander peoples who live, work, and learn in the project area.

SRLA Sustainability Category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Health & wellbeing		– SRL East will provide well-designed buildings that are comfortable, accessible, safe, and attractive. – Buildings will be designed with a high-quality internal and external environment considering acoustic, thermal and visual comfort as well as air quality, promoting health, productivity and occupant wellbeing.	**To provide a healthy indoor environment:** – Good indoor air quality will be provided to primary workspaces and passenger areas – Natural light will be maximised to station entrances and concourses – Stablingfacility workplaces will have high daylight factors.
Environmental protection & enhancement		– SRL East will strive to protect and enhance the environment, minimise and control emissions to air, land and water, and better manage the human-environment relationship. – SRL East will actively seek to avoid, minimise and mitigate environmental harm through compliance with environmental obligations outlined in applicable planning approvals, supported by robust environmental management systems. – Urban design principles, objectives, measures and benchmarks will be developed and implemented to ensure that opportunities for ecosystem enhancement and green infrastructure are investigated and where possible, habitat created, and biodiversity enhanced to complement connected and adjoining sites.	**Light pollution:** – Lighting design complies with AS 4282 'Control of the Obtrusive Effects of Outdoor Lighting' and lighting within the public realm to include luminaires that have an upward light output ratio (ULOR) <5% **Ecological considerations:** – SRL East will replace double the amount of tree canopy removed as a result of construction in each local government area by 2050 (refer to the relevant EPR and Tree Canopy Replacement Plan). EPR compliance obligations for SRL East will set targets, strategies and plans for this objective.

SRLA Sustainability Category	Aligned SDGs	SRLA Sustainability Objectives	SRLA Sustainability Targets
Resilience & climate change	  	SRL East will be designed to be resilient to climate change and natural hazards and to support a resilient transport network that can adapt in changing circumstances. To achieve this, SRL East will: – Identify and implement adaptation measures to manage climate change and natural hazard risks across design, construction and operations. – Investigate opportunities to support or enhance broader resilience of the transport network. Delivery partners will: – Update the SRL climate change and natural hazards risk assessment and develop an adaptation plan applicable to their scope of work, and – Treat all 'very high' and 'high' risks. To provide a healthy outdoor environment, and minimise the urban heat island effect: – The proportion of the station sites and stabling facility surface areas comprised of vegetation or other reflective features will be maximised.	**Climate Change Resilience** – Undertake a climate change and natural hazards risk assessment and develop an adaptation plan applicable to scope of work – Adaptation measures to treat all 'very high' and 'high' risks are identified and implemented, with no residual 'very high' or 'high' risks remaining after treatment. **Urban Heat Island Effect (UHIE)** The proportion of the station sites and stabling facility surface areas comprised of vegetation or other reflective features will be maximised.

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