



**SUBURBAN  
RAIL LOOP  
EAST**



# Annual Sustainability Report

2023





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## 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.

## Disclaimer

While reasonable efforts have been made to ensure that the contents of this publication are factually correct, to the maximum extent permitted by law, SRLA gives no warranty regarding its accuracy, completeness, currency or suitability for any particular purpose and disclaims all responsibility and liability for any loss or damages incurred as a result of use of or reliance on the content of this publication. This publication is provided on the basis that all persons accessing it take responsibility for assessing the relevance and accuracy of its content. This report must be read in its entirety and must not be copied, distributed or referred to in part only, and no excerpts are to be taken as representative of the findings. This report should be attributed to SRLA.

## 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, from 1 January 2023 to 31 December 2023.



# Suburban Rail Loop



SRL will change how people move around Melbourne and help shape how the city grows in the decades ahead.

SRL will deliver a 90 km rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport, better connecting Victorians to jobs, retail, education, health services and each other.

However, SRL is much more than a transport project. The broader areas around the new stations will attract new investment and businesses, and enable greater housing supply and choice where people want to live.

Melbourne's middle suburbs are already highly valued by their communities; they are great places to live, work and play – and we are doing the careful planning now to ensure they are ready for the change over time that will accompany delivery of the new rail line.

SRL will mean more jobs close to home, greater access to health, research, and education opportunities, and better local services to support these communities.



<p>SRL will support Victoria's population growth, recognising <b>the need for more reliable and accessible transport infrastructure.</b></p>	<p>By the 2050s, SRL East and SRL North will result in <b>600,000 fewer car journeys per day</b> on Melbourne's roads.</p>	<p>SRL will provide <b>better access and connection between the suburbs</b> of Melbourne and help deliver <b>more homes for Victorians where they want to live.</b></p>

SRL East	Regional lines
SRL North	Transport super hub
SRL Airport	Existing interchange station and customer service hub
SRL West	Metropolitan area
New interchange stations	Regional area
New SRL stations	

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

# SRL East

SRL is being delivered progressively, and construction of SRL East between Cheltenham and Box Hill has been underway since mid-2022.

SRL East includes twin 26-kilometre tunnels, **six new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill**, a train stabling and maintenance facility to support the new rail line, an emergency support facility and power supply substations.

SRL East will operate independently of the existing metropolitan rail network, with a new dedicated high-tech fleet of fast, four-car medium capacity trains. Rail systems including signalling, communication, lighting, power supply and traction power will support operations, as well as tunnel ventilation and fire and life safety systems. Construction is underway at all six station sites, and at the train stabling facility in Heatherton.

Thoughtful planning is also underway to develop structure plans for the broader areas around each new SRL East station. It is estimated more than 70,000 additional homes will be gradually built across these areas by the 2050s.

An ongoing and extensive program of community and stakeholder engagement is underway to ensure we deliver a shared vision for these neighbourhoods, and build on their existing strengths and characteristics.



	SRL East underground station
	SRL East rail tunnel alignment
	Existing rail alignment
	SRL rail tunnel continued
	Transport super hub (regional connection)

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





## 2023 overview

After the approval of SRL East under the rigorous Environment Effects Statement (EES) assessment process in 2022, SRLA started early construction works, and procurement of major works packages.

SRLA awarded its first contract for Initial and Early Works to Laing O'Rourke. By the end of 2023, construction was underway at several stations sites including construction of a tunnel boring machine launch site at Burwood.

To date, the project has used low carbon concrete in piling to reduce SRL East's carbon footprint, reused vegetation and construction materials, recycled construction waste rock and concrete, and supported initiatives to reduce water use and energy demand on site.

In December 2023, the Suburban Connect consortium was awarded the \$3.6 billion Tunnels South contract to build 16 kilometres of twin tunnels between Cheltenham and Glen Waverley.

Our teams have focused on embedding sustainability outcomes in designs that are being delivered in construction and operation.

We look forward to continuing to share the results in SRL Annual Sustainability Reports in the years to come.

Construction progress in Box Hill, Initial and Early Works package.



# Our approach to sustainability

SRLA has bold ambitions to embed sustainability across all parts of the project. This includes reaching net zero emissions to align with the *Climate Change Act 2017*.

Our approach is guided by SRLA's Sustainability Policy and formalised through an Environmental Management Framework.

## SRLA Sustainability Policy

SRLA's 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.

For more information, please refer to the [SRLA Sustainability Policy](#).

## 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 exhibition of the digital EES was supported by community information sessions and materials at public libraries.

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.

## 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
- 
**August 2021**  
 SRLA Sustainability Policy finalised
- 
**November 2021**  
 EES public exhibition, and Initial and Early Works contract awarded to Laing O'Rourke
- 
**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
- 
**2023**  
 SRLA supports sustainability outcomes across all work packages
- 
**December 2023**  
 SRL East Tunnels South contract awarded to Suburban Connect
- 
**July 2024**  
 SRL East Tunnels North preferred contractor announced as Terra Verde
- 
**We are here**  
 Publication of the 2023 Annual Sustainability Report
- 
**2035**  
 SRL East trains operating

## The Environmental Management Framework

The Environmental Management Framework (EMF) forms a part of the project's 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.

For more information, please refer to [SRL East Environmental Management Framework - Victoria's Big Build](#).

## 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). Continuous engagement with these organisations will assist us and our partners in delivering on our targets to create internationally recognised sustainable rail infrastructure. Collaborating with universities in Victoria through various workshops and reference groups, SRLA aims to be a thought leader in the development and delivery of sustainable precincts and sustainable rail infrastructure.

## Innovations and opportunities

As the impacts of climate change become more pronounced and Victoria's population increases, we need to minimise our contribution to greenhouse gas (GHG) emissions. Victoria remains the fastest growing state in the country with our population expected to reach around 11 million by the 2050s. More sustainable infrastructure will help decarbonise our city.

SRL provides an opportunity to deliver climate positive and resilient transport infrastructure, alongside liveable, future-proofed places. SRL can support the capability of Victoria's design and construction industry, embedding circular economy principles and reducing upfront GHG 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



<sup>1</sup>Victoria in Future ([planning.vic.gov.au](http://planning.vic.gov.au))



## SRL Precincts

In August 2023, the SRL Precincts Discussion Paper was released to guide the ongoing conversation about planning for the broader areas around each of the six SRL East stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill, and delivering a shared vision with local communities.

In December 2023, SRL Precinct Draft Visions were released for each of the six SRL East station neighbourhoods, encouraging further feedback on the ideas and opportunities for how these areas could evolve in the decades ahead – including creating new public open space and enhancing sustainability. The interactive engagement survey received more than 3400 responses and more than 33,000 online views.

Further engagement has been underway throughout 2024 to consult on the SRL Draft Precinct Visions and the Key Directions, ahead of the public exhibition of structure plans. This work will be captured as part of the 2024 Sustainability Report.

Consultation will also guide how we adapt to and mitigate the effects of climate change and contribute to environmental sustainability for the future of SRL East Precincts. We 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 Visions](#).

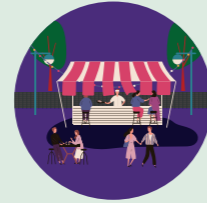
The proposed Key Directions are based on five themes which underpin all structure planning for each precinct:



**Enriching community**



**Boosting the economy**



**Enhancing place**



**Better connections**



**Empowering sustainability**

# Our sustainability objectives and targets

This Report presents the status of SRL East's performance against our sustainability objectives and targets in 2023.

We set ambitious targets in 2022 based on input from stakeholders and the community, as well as technical sustainability assessments.

## 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 A](#).

### SDGs aligned with SRLA's sustainability objectives and targets





# Performance progress



## 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.

To demonstrate sustainability leadership, SRLA is using industry leading rating tools to benchmark and monitor performance. This includes an ambitious Infrastructure Sustainability (IS) Rating v2.1 of Gold, 5 Star Green Star Rating and 6 Star National Australian Built Environment Rating System (NABERS) Rating for the appropriate work packages.

### What's to come

In December 2023, SRLA awarded its first tunnelling contract for the tunnels between Cheltenham and Glen Waverley. This contract includes several industry-leading innovation and environmental initiatives, which will help make SRL East one of the most sustainable projects in Australia's history.

For example, the four tunnel boring machines (TBMs) to be used for building Tunnels South will be powered by renewable electricity, and construction and materials emissions will be reduced by 20%.

### Infrastructure Sustainability (IS) Rating

The IS Rating Scheme is a comprehensive rating system for evaluating economic, social, and environmental performance of infrastructure. SRLA has embedded an IS rating tool requirement for the Tunnels South, Tunnels North and Linewide packages.

Visit [iscouncil.org](https://iscouncil.org) to learn more.



### Targets

### Work package status

Initial and Early Works\*      Tunnels South

#### Minimum sustainability ratings

Infrastructure Sustainability Council of Australia IS v2.1 (or later) - Gold rating - for infrastructure scope	NA	✔
Green Building Council of Australia Green Star Buildings v1A or later - minimum 5 Star rating - for each station and operational control centre	NA	NA
NABERS Energy rating of 6-star for the operational control centre	NA	NA
Contractual targets to drive improvements and innovation	✔	✔

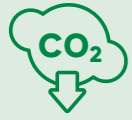
\*Initial and Early Works package contribute to overall SRLA sustainability objectives and targets, but due to scope limitations may not have specific targets.

Work package status key:    ✔ Commenced    ✔ Progressing    ✔ Well progressed    NA Not applicable due to scope



Early concreting in Burwood, Initial and Early Works package.





## 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.

SRL East construction activities throughout 2023 included the establishment of work sites along the alignment and early preparation works for major construction.

The Initial and Early Works teams implemented low carbon power sources where possible, including solar power and battery hybrid generators for site offices and caravans. These sites will be connected to the electricity grid, and the contractor will purchase renewable energy to ensure 100% of site power is coming from renewable sources.

By adopting these alternatives, emissions for site accommodation were reduced by an estimated 62%.



Compound caravan set-up in Glen Waverley, Initial and Early Works package.

Targets	Work package status	
	Initial and Early Works*	Tunnels South
<b>In construction</b>		
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	NA	✓
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	NA	✓

\*Initial and Early Works package contribute to overall SRLA sustainability objectives and targets, but due to scope limitations may not have specific targets.

### Targets\*

#### 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 and offsets strategy for operations, using Australian Carbon Credit Units (ACCUs) or other equivalent quality offsets recognised by the Victorian Government

\*Due to the current scope, these objectives and targets do not apply, and will be embedded in the applicable future work packages.

Work package status key: ✓ Commenced   ✓ Progressing   ✓ Well progressed   NA Not applicable due to scope





## 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).

At each construction compound, potable water use was reduced through water conscious practices.

Water tanks were connected to office roofs and the larger compounds, capturing rainwater for use around site, including toilet flushing and dust suppression.

During construction activities, contractors made use of non-potable water in the laying of crushed rock, replacing 234 kL of potable water.

The project also used non-potable water in temporary barriers, reused water needed for drilling, and batched concrete off-site with recycled water.

### Targets

### Work package status

Initial and Early Works

Tunnels South

#### 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)	NA	NA
80% potable water replaced with non-potable water (stabling facility train wash)	NA	NA
<b>Stormwater management</b>		
The Integrated Water Management Strategy for SRL East sets targets, strategies and plans for this objective	✔	✔



NA

NA

NA

NA



Work package status key: Commenced Progressing Well progressed Not applicable due to scope

### Case study

Dust suppression on work sites consume large amounts of water. Contractors utilised recycled water and implemented polymer sprays that bind earth, preventing dust from forming and reducing the need for water suppression.



Dust suppression at the Burwood, using non-potable water, Initial and Early Works package.





## 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.

SRLA supports improved waste and resource recovery and diversion from landfill in line with the Victorian Government Circular Economy Policy, Recycling Victoria: A New Economy Policy, and the Recycled First Policy which requires contractors to incorporate recycled and reused material into the project.

SRL East will divert at least 95% of construction and demolition waste from landfill. The project also addresses one of the highest GHG emitting construction materials by mandating a minimum 35% reduction in Portland cement content in concrete.

In 2023, the Initial and Early Works contractors prioritised the use of recycled construction materials. By doing so, the project used more than 30,000 tonnes of recycled material.

Through the use of recycled content, we estimate a reduction of 24% of embodied material emissions was achieved in 2023.



### Case study

The Burwood and Heatherton sites used reclaimed concrete and rock from the Level Crossing Removal Project works in Surrey Hills and Glen Huntly. These sites used demolished concrete that had been crushed and used as a substitute for rock or asphalt pavement.

Site piling works at Burwood, Initial and Early Works package: materials containing recycled concrete from the Level Crossing Removal Project.

### Targets

### Work package status

Initial and Early Works\*

Tunnels South

#### Operational waste

Recycle or reuse 80% of the waste generated during operations

NA

NA

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



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



\*Initial and Early Works package contribute to overall SRLA sustainability objectives and targets, but due to scope limitations may not have specific targets.

Work package status key:

Commenced

Progressing

Well progressed

NA Not applicable due to scope





## Transport & 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.

### Targets\*

#### Operational waste

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

\*Due to the current scope, these objectives and targets do not apply, and will be embedded in the applicable future work packages.

In November 2023, the Box Hill tram terminus was moved 40 m west, to minimise disruption to services and enhance pedestrian safety during construction.

The result is improved pedestrian and bicycle links between the train, tram, and bus services in central Box Hill, increasing interchange capability, and connectivity for passengers.

Thorough community consultation helped guide the development of the terminus, which now includes:

- double sided canopies for additional weather protection
- lighting and CCTV coverage for increased safety
- a platform that meets universal access standards, to enable wheelchair access alongside pedestrian movements
- the retention of three mature trees
- additional seating and bike hoops.



### Box Hill tram terminus relocation - A community engagement snapshot

- 76 survey responses
- More than 192 registered letters delivered
- Social media posts reached more than 35,000 people
- More than half of respondents lived nearby

Box Hill's new tram terminus.





## Community & 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 underrepresented groups and procuring from social benefit suppliers
- Support the Victorian Government's commitment to social procurement, gender equality and Aboriginal self-determination.

### Case study: Careers Trackers

The Initial and Early Works contractors engaged three intern placements as part of the Career Trackers program, which supports Aboriginal people to study, with the 12-week placement converting to permanent employment.

### Historical and cultural heritage

SRLA has prepared a Heritage Interpretation Strategy, which defines the roles and responsibilities of SRLA, the contractors and stakeholders. The strategy was completed in consultation with Heritage Victoria and local governments. It includes a list of heritage themes to be considered at each SRL East station and the train stabling facility, establishes a heritage interpretation framework and provides detailed technical requirements for the contractors.

SRLA has also produced Cultural Heritage Management Plans (CHMPs) that protect cultural heritage during construction of SRL East. As a condition of the CHMPs, all contractors undertaking ground disturbing works are required to understand the CHMP and protocols should they find potential cultural heritage material.

### Social procurement

SRLA and contractors engaged with strategic partners including Apprenticeships Victoria, Holmesglen Institute, Box Hill Institute, Monash University, Swinburne University, North Melbourne Football Club, and Career Trackers.

Engagement with the Aboriginal community was maintained across the project, with direct employment and partnerships with businesses including Wamarra, Zancott labour hire, and PPE suppliers A2B Consumables.

Other contracts were awarded to:

- ECB Training Services as the preferred training provider in first aid, fire warden and White Card
- Kulbardi for site furniture
- Total Surveying Solutions
- Indigi-Print for printing services
- Mandura for stationery.

When the Initial and Early Works project office moved to Collins Street, OC Connections Enterprises (OCCE) was contracted to provide logistical support. OCCE employs over 100 people living with disability, and engagement directly led to the employment of one part-time employee with a disability.

Targets	Work package status	
	Initial and Early Works	Tunnels South
<b>Legacy</b>		
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 <sup>2</sup> peoples		
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		
<b>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:</b>		
Victoria's Social Procurement Framework		
Building Equality Policy	NA	
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		

<sup>2</sup>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.

Work package status key: Well progressed Progressing Commenced NA Not applicable due to scope





Lundgren Chain Reserve opening day.

### Case study: Burwood temporary open space

In May 2023, local families celebrated the official opening of Burwood's newest park along Lundgren Chain Reserve, delivered as a replacement park for Sinnott Street Reserve.

Waverley Industries, which provides opportunities for people with disability was engaged to provide gardening and maintenance services. Another social enterprise, Cleanforce, provided cleaning services to the site office.



### Case study: Women and young people

1. The launch of the Inspiring STEM+ Program with Kilbreda College aimed to encourage more female students into STEM (Science, Technology, Engineering and Mathematics) subjects at school and university, and ultimately towards careers in construction and engineering.
2. The NextGen Construct Program with Headstart and Holmesglen TAFE runs school-based traineeships where four year 11 students attend the Collins Street project office and receive practical experience across various construction disciplines for two days a week for two years and complete a Certificate III in Business. The program includes opportunities for mentoring and ongoing employment at the end of the program.

Learn more about [Supporting the next generation of women in construction - Victoria's Big Build](#).



Participants of the NextGen Construct Program, Initial and Early Works package. Laing O'Rourke Photography.

Whitehorse Road median, 1930s - 1960s, Box Hill Historical Society.



### Case study: Preserving the Whitehorse Statue in Box Hill

In recognition of the historical and cultural significance of Box Hill's iconic Whitehorse Statue, the landmark was safely moved at the start of works in Box Hill.

Crews protected the horse, used a scissor lift to lower it to the ground, and placed the statue in a custom-made box, where it will be kept safe while a new home is found.

The statue is a fibreglass replica of the original, built for the Whitehorse Hotel in 1895. When the hotel was demolished in 1934, the statue was moved to Whitehorse Road. The original has since been moved to Box Hill Town Hall, while the replica has greeted thousands of people every day passing through Box Hill.





## Health & 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.

### Targets\*

#### 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

Stabling facility workspaces will have high daylight factors

\*Due to the current scope, these objectives and targets do not apply, and will be embedded in the applicable future work packages.

Our health and wellbeing objectives and targets are integral to delivering high quality spaces, ensuring SRL East stations and workplaces are built for user comfort and amenity. Indoor air quality, access to natural light, lighting quality and acoustics are all optimised through conscious design choices.

To further support positive health and wellbeing outcomes, the SRL East Urban Design Strategy details performance requirements and quality benchmarks that must be achieved by contractors.

These include objectives relating to resilience, accessibility and inclusive design, amenity and comfort, safety, and green infrastructure and urban cooling.

SRLA is adopting industry-leading sustainability rating tools to benchmark and monitor performance. Green Star Buildings is a holistic sustainability rating tool comprising eight categories of sustainability, including 'Healthy', which promotes the physical and mental health of occupants.

SRLA is committed to achieving a minimum 5 Star rating for each of the six SRL East stations and support buildings, under the Green Building Council of Australia, Green Star Buildings rating tool.



Concept only.





## Environmental protection & 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 is created, and biodiversity enhanced to complement connected and adjoining sites.

SRL East's construction works are minimising the loss of trees and vegetation to help create cool, green, and inviting public spaces. Around 1400 trees may be impacted during construction, and we are working with local councils to replace and double the tree canopy removed, with tree planting to start as soon as possible.

SRLA is committed to naturalising a section of Gardiners Creek in Burwood, and is working with stakeholders to restore this important local asset.

To further contribute to SRLA's commitment to protecting and enhancing the environment, the Initial and Early Works contractor organised two volunteering events for the community group Friends of Gardiners Creek Valley. Gardiners Creek is 17 kilometres long, and runs adjacent to SRLA's Burwood station site.

The creek supports important native fish species, including common galaxias, climbing galaxias, water rats, and the Growling Grass Frog.

Over four days, volunteers worked on rejuvenating the Gardiners Creek trail, clearing weeds, preparing soil and planting 225 plant species that already exist in the area.



Artists impression of Gardiners Creek redevelopment.

### Targets

### Work package status

Initial and Early Works\*†

Tunnels South\*

#### 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%

NA

NA

#### 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)



NA

\*Due to the scope, these objectives and targets do not apply, and will be embedded in the applicable future work packages.  
†Compliance obligations are being actively monitored by the IEA, with site based audits commencing in 2023.

Work package status key: Commenced Progressing Well progressed Not applicable due to scope



Gardiners Creek, Burwood.



Gardiners Creek, Burwood.





## Resilience & 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
  - Treat all 'very high' and 'high' risks
- To provide a healthy outdoor environment, and minimise the urban heat island effect:
  - The proportion of station sites and stabling facility surface areas comprised of vegetation or other reflective features will be maximised.

SRL East is embedding climate resilient infrastructure design. A project wide risk assessment has informed reference design development.

Key measures include advanced drainage and water management systems in and around the underground stations, contingencies for changing groundwater levels, passive irrigation, and more trees to minimise urban heating. Concrete structures will be required to withstand increased temperatures, temperature ratings and carbon dioxide concentrations.

These requirements are embedded in contracts so the design, construction, and operation phases achieve SRLA's climate resilience objectives and mitigate future extreme weather impacts – including more severe droughts, heatwaves and floods.

### Targets

### Work package status

Initial and Early Works

Tunnels South

#### Climate change resilience

Undertake a climate change and natural hazards risk assessment and develop an adaptation plan applicable to scope of work

NA



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

NA



#### Urban Heat Island Effect (UHIE)

The proportion of station sites and stabling facility surface areas comprised of vegetation or other reflective features will be maximised



NA

#### Work package status key:

Commenced

Progressing

Well progressed

NA Not applicable due to scope



Artists impression of SRL Clayton.





## Future activities

Works on SRL East have ramped up in 2024, with Initial and Early Works activities progressing and the Tunnels South contractor preparing to start tunnelling in 2026.

Procurement of the remaining packages will continue with contracts expected to be awarded for Tunnels North in late 2024 and the Linewide Alliance in 2025.

Construction of SRL East is creating up to 8000 direct jobs.

SRLA will continue to support and achieve sustainability outcomes across work packages in delivery and procurement, and in planning the neighbourhoods around each station.




Concept only.







# Appendix A:

## Sustainability objectives & targets mapped to the United Nations Sustainable Development Goals


SRLA sustainability category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Leadership	 	<ul style="list-style-type: none"> <li>Sustainability rating systems will be used to drive, verify and benchmark progress in sustainability during planning, design and construction</li> <li>SRLA will work with delivery partners and stakeholders to develop innovative approaches, technologies and industry capacity in particular to realise emission reduction opportunities.</li> </ul>	<p><b>Minimum sustainability ratings of:</b></p> <ul style="list-style-type: none"> <li>Infrastructure Sustainability Council of Australia IS v2.1 (or later) – Gold rating – for infrastructure scope</li> <li>Green Building Council of Australia GS Buildings v1A or later- minimum 5 Star rating- for each station and operational control centre</li> <li>National Australian Built Environment Rating System (NABERS) Energy rating of 6-star for the operational control centre.</li> </ul> <p>Contractual targets to drive improvements and innovation.</p>

SRLA sustainability category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Energy & carbon	    	<ul style="list-style-type: none"> <li>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.</li> </ul>	<p><b>In construction:</b></p> <ul style="list-style-type: none"> <li>Reduce upfront or embodied emissions from materials and the supply chain by at least 20% and develop the markets low carbon construction capabilities</li> <li>20% reduction in Construction GHG emissions</li> <li>All electrical fixed construction plant (i.e. site accommodation, lighting, ventilation, water treatment plant) to be powered with 100% renewable electricity</li> <li>All tunnel boring machines (TBMs) to be powered with 100% renewable electricity</li> <li>Maximise the use of electrical construction plant</li> <li>Maximise the use of alternative low carbon fuel sources.</li> </ul> <p>An offsets strategy will be developed to consider the role of offsets in further mitigating the construction and upfront emissions footprint.</p> <p><b>In operation:</b></p> <ul style="list-style-type: none"> <li>Minimum 20% reduction in operational energy use</li> <li>All rail infrastructure, stations and buildings will be powered with 100% renewable electricity, in line with Victorian Government commitments</li> <li>SRL East buildings and rail infrastructure will be designed to operate fossil fuel free</li> <li>A minimum of 20% energy for stabling facility operation will be sourced from onsite renewable sources</li> <li>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.</li> </ul>












SRLA sustainability category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Water	   	<ul style="list-style-type: none"> <li>SRL East will be designed to minimise the use of potable water, and maximise opportunities for reuse of rainwater, stormwater, wastewater and groundwater</li> <li>All above ground sites will be designed to deliver integrated water management (IWM) solutions and water sensitive urban design (WSUD).</li> </ul>	<p><b>Potable water usage reduction (Construction and Operation)</b></p> <ul style="list-style-type: none"> <li>10% potable water replaced with non-potable water during construction and during operation</li> <li>45% potable water operational demand reduction (stations)</li> <li>80% potable water replaced with non-potable water (stabling facility train wash).</li> </ul> <p><b>Stormwater management</b></p> <ul style="list-style-type: none"> <li>The Integrated Water Management Strategy for SRL East sets objectives, targets, and requirements aligned with this objective.</li> </ul>

Materials & waste	  	<ul style="list-style-type: none"> <li>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</li> <li>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.</li> </ul>	<p><b>Operational waste:</b></p> <ul style="list-style-type: none"> <li>Recycle or reuse 80% of the waste generated during operations</li> <li>60% by volume of office waste (includes paper, cardboard, plastics and food waste) is diverted from landfill.</li> </ul> <p><b>Reduce material's environmental impact</b></p> <p>Reduce waste during the construction phase:</p> <ul style="list-style-type: none"> <li>Divert at least 95% of construction and demolition waste from landfill, and reuse topsoil and fill where possible.</li> </ul> <p>SRLA will reduce the impacts of materials across SRL East by:</p> <ul style="list-style-type: none"> <li>Reducing the amount of cement in concrete by at least 35%</li> <li>Measuring and reducing material lifecycle impacts by at least 15% as measured by the appropriate IS or Green Star materials lifecycle calculator</li> <li>80% steel will be sourced from responsible makers</li> <li>95% timber will be sourced from certified source or reused.</li> </ul> <p>Seek opportunities to include recycled and reused content via the Recycled First Plans and Materials Innovation Plans.</p>
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SRLA sustainability category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Transport & mobility	  	<ul style="list-style-type: none"> <li>SRL East will promote improved public transport patronage by maximising connectivity and interchange capabilities between modes of transport and walking and cycling</li> <li>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</li> <li>Opportunities for electric bike charging infrastructure will be considered in the detailed design stage.</li> </ul>	<ul style="list-style-type: none"> <li>15% of parking at the stabling facility is dedicated to (and marked for) fuel-efficient vehicles (&lt;5 L/100 km efficiency), with a minimum of 5% for motorcycle parking</li> <li>5% of parking at the stabling facility is dedicated to electric vehicles (EVs) and charging infrastructure is provided for each space</li> <li>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.</li> </ul>



SRLA sustainability category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Community & social legacy		<ul style="list-style-type: none"> <li>- 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</li> <li>- SRL East will provide a positive legacy to the local and wider community. Ongoing engagement is integral to SRL East's development</li> <li>- SRL East will minimise negative impacts on the community and local businesses during construction and operation</li> <li>- SRLA and its contractors will maximise opportunities for employing underrepresented groups and procuring from social benefit suppliers</li> <li>- Support the Victorian Government's commitment to social procurement, gender equality and Aboriginal self-determination.</li> </ul>	<p><b>Legacy</b></p> <ul style="list-style-type: none"> <li>- Identify places of historical and cultural significance and commit to apply appropriate protection and interpretation strategies</li> <li>- Develop project wide legacy aspirations and outcomes that leverage benefits for the local community and local Aboriginal peoples<sup>1</sup></li> <li>- Actively engage with Aboriginal community and Traditional Owners on SRLA-wide matters</li> <li>- Support job creation for priority groups and add value to Victoria's economy by supporting social benefit suppliers.</li> </ul> <p><b>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:</b></p> <ul style="list-style-type: none"> <li>- Victoria's Social Procurement Framework</li> <li>- Building Equality Policy</li> <li>- Local Jobs First Policy.</li> </ul> <p>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.</p>
			
			
			
			
			
			
			
			

SRLA sustainability category	Aligned SDGs	SRLA sustainability objectives	SRLA sustainability targets
Health & wellbeing		<ul style="list-style-type: none"> <li>- SRL East will provide well-designed buildings that are comfortable, accessible, safe, and attractive</li> <li>- 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 well-being.</li> </ul>	<p><b>To provide a healthy indoor environment:</b></p> <ul style="list-style-type: none"> <li>- Good indoor air quality will be provided to primary workspaces and passenger areas</li> <li>- Natural light will be maximised to station entrances and concourses</li> <li>- Stabling facility workplaces will have high daylight factors.</li> </ul>
			
			
Environmental protection & enhancement		<ul style="list-style-type: none"> <li>- 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</li> <li>- 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</li> <li>- 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.</li> </ul>	<p><b>Light pollution:</b></p> <ul style="list-style-type: none"> <li>- 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) &lt;5%.</li> </ul> <p><b>Ecological considerations:</b></p> <ul style="list-style-type: none"> <li>- 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).</li> </ul> <p><b>EPR compliance obligations for SRL East will set targets, strategies and plans for this objective.</b></p>
			
			
			
			
			

<sup>1</sup>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
<b>Resilience &amp; climate change</b>	   	<ul style="list-style-type: none"> <li>- SRL East will be designed to be resilient to climate change and natural hazards and to support a resilient transport network that can adapt and thrive in changing circumstances.</li> </ul> <p>To achieve this, SRL East will:</p> <ul style="list-style-type: none"> <li>- Identify and implement adaptation measures to manage climate change and natural hazard risks across design, construction and operations</li> <li>- Investigate opportunities to support or enhance broader resilience of the transport network.</li> </ul> <p>Delivery partners will:</p> <ul style="list-style-type: none"> <li>- Update the SRL climate change and natural hazards risk assessment and develop an adaptation plan applicable to their scope of work, and</li> <li>- Treat all 'very high' and 'high' risks.</li> </ul> <p>To provide a healthy outdoor environment, and minimise the urban heat island effect:</p> <ul style="list-style-type: none"> <li>- The proportion of the station sites and stabling facility surface areas comprised of vegetation or other reflective features will be maximised.</li> </ul>	<p><b>Climate Change Resilience</b></p> <ul style="list-style-type: none"> <li>- Undertake a climate change and natural hazards risk assessment and develop an adaptation plan applicable to their scope of work</li> <li>- 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.</li> </ul> <p><b>Urban Heat Island Effect (UHIE)</b></p> <ul style="list-style-type: none"> <li>- The proportion of the station sites and stabling facility surface areas comprised of vegetation or other reflective features will be maximised.</li> </ul>



[contact@srla.vic.gov.au](mailto:contact@srla.vic.gov.au) | 1800 105 105 (call anytime)  
[suburbanrailloop.vic.gov.au](http://suburbanrailloop.vic.gov.au)

