

Pakenham East Depot Sustainability Report 2023

31 July 2023



INTRODUCTION



PAKENHAM EAST DEPOT

The Victorian Government and Evolution Rail Consortium are delivering 70 new High Capacity Metro Trains (HCMTs) and a range of ancillary activities to support their maintenance and operation. As the first all-new train design in Victoria for nearly 20 years, a critical component of this city-shaping project is the new depot in Pakenham East where testing and maintenance occur. The 118-hectare site has maintenance capacity for 80 trains. Its stabling yard accommodates 30 trains including other rollingstock, making operations exceedingly flexible. Evolution Rail consortium comprises Downer, CRRC Changchun Railway Vehicles and Plenary. Downer is the contractor for the construction and operation of the HCMT Depot.

Key features of one of the most efficient train maintenance regimes in Australia, include:

- Energy savings of 23 per cent due to efficient design of buildings, HVAC, hot water, lighting and solar.
- Water savings of 46 per cent due to efficient train wash and other appliances.
- 77 per cent of potable water replaced with non-potable and recycled water use.
- 13 per cent enhancement of biodiversity through local weed control and vegetation enhancement.
- World-first use of Tonerseal asphalt made from recycled toner cartridges in the temporary carpark.
- Savings of 115,000kg CO₂-e over its life.
- Decreasing noise impacts and increasing productivity from the Integrated Test Facility (ITF).

The Depot is adjacent to habitat areas for the Southern Brown Bandicoots and Growling Grass Frog. Downer, who is a part of the Consortium, has a goal to enhance the habitat of these areas and achieve 20 per cent ecological enhancement over a 15-year period with the enhancement of habitat connectivity for the Southern Brown Bandicoots. To achieve this, the project implemented several weed control and planting measures as well as pest control and protection to ensure ongoing habitat protection for these species as well as innovations such as bandicoot shelters and gates. A detailed case study of Downer's flora and fauna management is provided at the end of this report.

Additional environmental solutions were implemented across the HCMT project, including at the Newport Manufacturing Facility. In an Australian-first sustainability initiative, the soft plastic used to protect the HCMTs during transport is being diverted from landfill and is being re-used in Downer's Reconophalt™ road surfacing products. These products are then utilised in the construction of major road projects across Victoria, including upgrades to the M80 Ring Road and the Monash Freeway.

In May 2022, the Consortium accepted the Infrastructure Sustainability Council's (ISC) Commended Award for the As Built rating of the Pakenham East Depot. ISC also recognised the ITF as a sustainable innovation for its predicted 40 per cent increase in productivity and CO₂-e reductions. Evolution Rail Consortium are currently undertaking an Operations IS rating for the HCMT Pakenham East Depot, targeting a rating of 'Excellent'.

SUSTAINABILITY PERFORMANCE

The project commenced the implementation of the IS Operations rating at the start of 2022 and has developed a project specific Sustainability Policy and objectives and targets. The next few pages provide at a high-level the sustainability targets and their performance.



Sustainability Performance

Commitment	Target	Status	Details
Embed Sustainability into the Business	Achieve and 'Excellent' Operations IS Rating by 2026	On Track	<ul style="list-style-type: none"> • The Infrastructure Sustainability Rating Scheme is an industry-compiled voluntary sustainability performance rating scheme evaluating planning, design, construction, and operation of all infrastructure asset classes in all sectors linking industry, communities and commerce beyond regulatory standards. The IS Rating Scheme is developed and administered by the Infrastructure Sustainability Council (ISC). • Currently the project is in Year 1 of implementing the Operations rating requirements and tracking well against the milestone schedule. Key achievements include: <ul style="list-style-type: none"> ○ Weightings Assessment verified ○ Sustainability risks, opportunities, and initiatives identified ○ Climate Change Risk Assessment completed ○ Base Case submitted for verification
Support local community	Victoria apprenticeships during the maintenance phase of at least 2.5 per cent	On Track	<ul style="list-style-type: none"> • This target is required to be tracked in fifth year of full operations, and every five years thereafter. <p>CASE STUDY: WOMEN ON TRACK featured in this report.</p>

Sustainability Performance

Commitment	Target	Status	Details
Biodiversity restoration	20 per cent increase in vegetative cover and 20 per cent decrease in weed cover in the retained fauna habitat and conservation buffer within 15 years.	On Track	<ul style="list-style-type: none"> Environment Protection and Biodiversity Conservation Act 1999 (EPBC) requirements have been met and 2023 EPBC Report approved. 90 per cent vegetation cover increased 70 per cent weed cover reduced This status will be maintained and enhanced for the next few years. <p>CASE STUDY: BIODIVERSITY RESTORATION AND INNOVATIONS featured in this report</p>
Sustainable procurement	Minimum of 80% local content (in accordance with Victorian Industry Participation Policy (VIPPP) requirements) for trains.	On Track	<ul style="list-style-type: none"> VIPP is scheduled to be tracked in the fifth year of full operations, and every five years thereafter.
	Significant decisions to be assessed through a multi-criteria analysis where at least one non-financial criterion is weighted at least 20 per cent.	On Track	<ul style="list-style-type: none"> The project decision making process includes a multi-criteria analysis that considers environmental, social and economic aspects. The total of these non-financial criteria weightings is more than 20 per cent.
	All high impact subcontractors / suppliers will be evaluated for environment and sustainability management capability.	On Track	<ul style="list-style-type: none"> The project tender evaluation process includes a multi-criteria analysis that considers environmental, social and economic aspects to assess high impact suppliers' sustainability management capability.

Sustainability Performance

Commitment	Target	Status	Details
Meeting legislative requirement	No regulatory infringements, including Penalty Infringement Notices and prosecutions. 100 per cent compliance with statutory approvals.	Achieved	<ul style="list-style-type: none"> 0 Regulatory Infringements 100 per cent compliance with Statutory Approval
Environmental Management System	Complete internal environmental audits in accordance with the pre-planned audit schedule and pass the audits.	Achieved	<ul style="list-style-type: none"> 100 per cent compliance with the Internal Audit Schedule and Management Reviews of the EMS
Review Sustainability Performance	Review Sustainability Management Plan annually and the effectiveness of the Environmental Management System via management reviews twice a year.	Achieved	<ul style="list-style-type: none"> Sustainability Management Plan review and the Environmental Management System review are compliant with the annual review schedule.
Economic Outcomes for the State	Achieve minimum reliability target of 50,000km MDBSAF (Mean Distance Between Service Affecting Failures). Achieve 100 per cent availability.	On Track	<ul style="list-style-type: none"> The Fleet Final Acceptance reliability target is 50,000 MDBSAF and is expected to be achieved in 2024. Until all 70 trains are in maintenance the expected availability for the current 75% operational capacity is 92%, which HCMT has been consistently achieving each month.

Sustainability Performance

Commitment	Target	Status	Details
Resource Optimisation	Achieve a reduction in water use.	Not Applicable for FY23	<ul style="list-style-type: none"> The project is currently awaiting verification from ISC on the proposed baseline assessment to monitor performance in emissions, water, material and waste. HCMT commenced operations in July 2020 and data recording for energy, emissions, water, material and waste has been established from January 2021. FY24 Sustainability Report is expected to include the performance of emissions, waste and resource use against the ISC verified baseline data.
Resource Optimisation	Achieve a reduction in GHG emissions.	Not Applicable for FY23	
Resource Optimisation	Use the Asset Condition Information system to measure and monitor materials impact against the material use baseline.	Not Applicable for FY23	
Mimimise Waste	Landfill diversion targets of: <ul style="list-style-type: none"> 80 per cent to <100 per cent by volume or weight of spoil 50 per cent to 90 per cent by volume or weight of inert and non-hazardous waste 40 per cent to 60 per cent by volume or weight of office waste 	Not Applicable for FY23	
Continuous Improvement	Improve the IS Operations rating score annually for Year 1, Year 2, and Year 3	Not Applicable for FY23	<ul style="list-style-type: none"> Additional credits will be targeted in years 2 and 3 to improve the operations ratings score.

CASE STUDIES

This section features two case studies: Women on Track and Pakenham's Biodiversity Restorations and its innovations.



Women on Track

Downer has developed the Women on Track program, a paid traineeship dedicated to helping women kick-start their careers in the rail industry.

The roles are entry-level positions combining a Certificate II in Electrotechnology with hands-on experience across Downer's flagship rollingstock projects. The program combines paid structured learning with key practical on-the-job experience across some of Downer's Melbourne based programs, including the High Capacity Metro Trains (HCMTs) project.

In its first year in 2021, the program received 120 applications from women for 10 roles. Downer was awarded Highly Commended at the Australasian Rail Industry Awards for Diversity and Inclusion Excellence. Those 10 women completed the program in 2022, where eight graduates remained with Downer, and nine remained in the rail industry, highlighting a 90 per cent retention rate.



Biodiversity Restoration

The Depot is adjacent to the habitat areas of the following EPBC listed flora and fauna species:

- growling grass frog (*Litoria raniformis*), listed as vulnerable
- southern brown bandicoot (*Isoodon obesulus*), listed as endangered
- matted flax-lily (*Dianella amoena*), listed as endangered
- maroon leek-orchid (*Prasophyllum frenchii*), listed as endangered

Downer has developed management plans, and controls to mitigate adverse impacts to these habits during construction and operations. Downer is also taking measures to protect and enhance the habitat areas. Since operations, Downer has been successfully complying and exceeding the EPBC conditions each year.

Project conservation and enhancement activities:

- Educating employees, contractors and visitors on the flora and fauna management management plans and controls.
- Implementing No Go Zone, Fencing and Conservation Buffers.
- Maintain and restore existing grass cover around the waterways within the site.
- Maintaining the vegetation cover of the retained flora and fauna habitats.
- Rabbit proof fencing and other pest control.
- Weed control.
- Revegetate with native species.
- Implementing Bandicoot Gates and Bandicoot shelters.



Innovations in Biodiversity Restoration

Richard Francis, the ecological consultant of Abzeco has developed a bandicoot shelter and placed several of them within the project areas. These shelters are made up of straw nesting material, treated pine, plywood and iron. They provide refuge for the bandicoot.

These shelters are placed in several locations and either camouflaged with removed Burgan from ecological thinning works or allowed to blend in with the surrounding flora.

Richard has also implemented Bandicoot Gates, using the Cranbourne Botanic Gardens Bandicoot Gate design. The bandicoot gates provide movement for the bandicoot through the rabbit proof fence.

Abzeco is Downer's partner that manages the landscape, flora and fauna for Pakenham East Depot. Abzeco and the Depot team engage with each other on a regular basis to improve and encourage sustainability initiatives and innovations for the project.



DISCLOSURE

Since operations began in 2020, Pakenham East Depot has been receiving trains at a rate of two trains per month for testing and commissioning prior to becoming operational and maintained under the maintenance contract. The Depot will be 100 per cent operational when the total of 70 trains have been commissioned and handed over to the Depot, by early 2024. Therefore, as this report is the project's inaugural sustainability report, performance reporting is expected to improve in the future as the project matures.

Thank you

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