



Murray Basin Rail Project

Project overview

The Murray Basin Rail Project will deliver important upgrades to Victoria's rail freight network to meet the increasing demand for freight services.

The project will drive economic growth, create jobs and provide a major boost to the transport industry, agricultural sector and regional communities.

It will play an important role in supporting freight mode shift from road to rail, removing around 20,000 truck trips from our roads to the ports and improving safety for regional communities.

The project involves standardising the rail freight lines servicing the Murray Basin region in the north-west of Victoria. The project will also increase axle loading on these lines from 19 to 21 tonnes.

These improvements will mean the freight industry in the Murray Basin region will be able to deliver exports to Victoria's ports in a more efficient and cost-competitive way.

Most importantly, the Murray Basin Rail Project will reduce transport logistics costs for our industries and primary producers and ensure our rail network can meet the future freight demands of our state.

Following an assessment of the business case and consultation with freight industry and regional communities, the Andrews Labor Government has committed to the \$416 million project, which delivers the most for regional Victoria. \$220 million has already been committed by the Government to this project, and Victoria hopes to partner with the Commonwealth to help deliver the remainder of the funding required for this project of critical importance to Victoria and Australian freight.

Key freight types from the Murray Basin

- **Grain exports** – around 2 million tonnes per annum from the Murray Basin
- **Mineral sands exports** – around 1-1.5 million tonnes from the Murray Basin
- **Containerised import and exports** – export grain and containerised wine, grapes, citrus, dried fruit and juice, totalling around 13,000 export containers as well as 500 import containers

Why do we need this project?

The Murray Basin is a nationally important producer of grain, mineral sands, fruit, vegetables and wine. Much of this product is exported via the Ports of Portland, Geelong and Melbourne and is transported using the region's road and rail network. Grain and mineral sands are the largest bulk freight products for the state and this region.

Rail has a natural transport advantage over road for bulk freight products as it more efficiently delivers large volumes of products over long distances in a single movement to port.

However a lack of capital investment in the rail network has diminished rail's natural advantage despite an increasing volume of freight from this region. Lack of maintenance has led to speed restrictions, increasing rail travel times and derailments. Four derailments in the Murray Basin region have occurred in the past three years. Speed restrictions have also resulted in more freight shifting from rail to road.

Iluka Resources has invested in a rail terminal at its processing plant in Hamilton and at a rail terminal at Hopetoun on standard gauge. With the intended shift of mining operations north to Balranald in New South Wales, access to standard gauge rail is a fundamental requirement to maintain efficiency and access to its processing plant.

A standard-gauge rail option in the Murray Basin region would significantly improve rail access to the Port of Portland and ensure competitive supply chain costs. Standard-gauge rail access to Hamilton will ensure the viability of the processing plant.

This project is essential to better connect key freight centres in Victoria with our ports and encourage competition and private investment in our rail freight network.

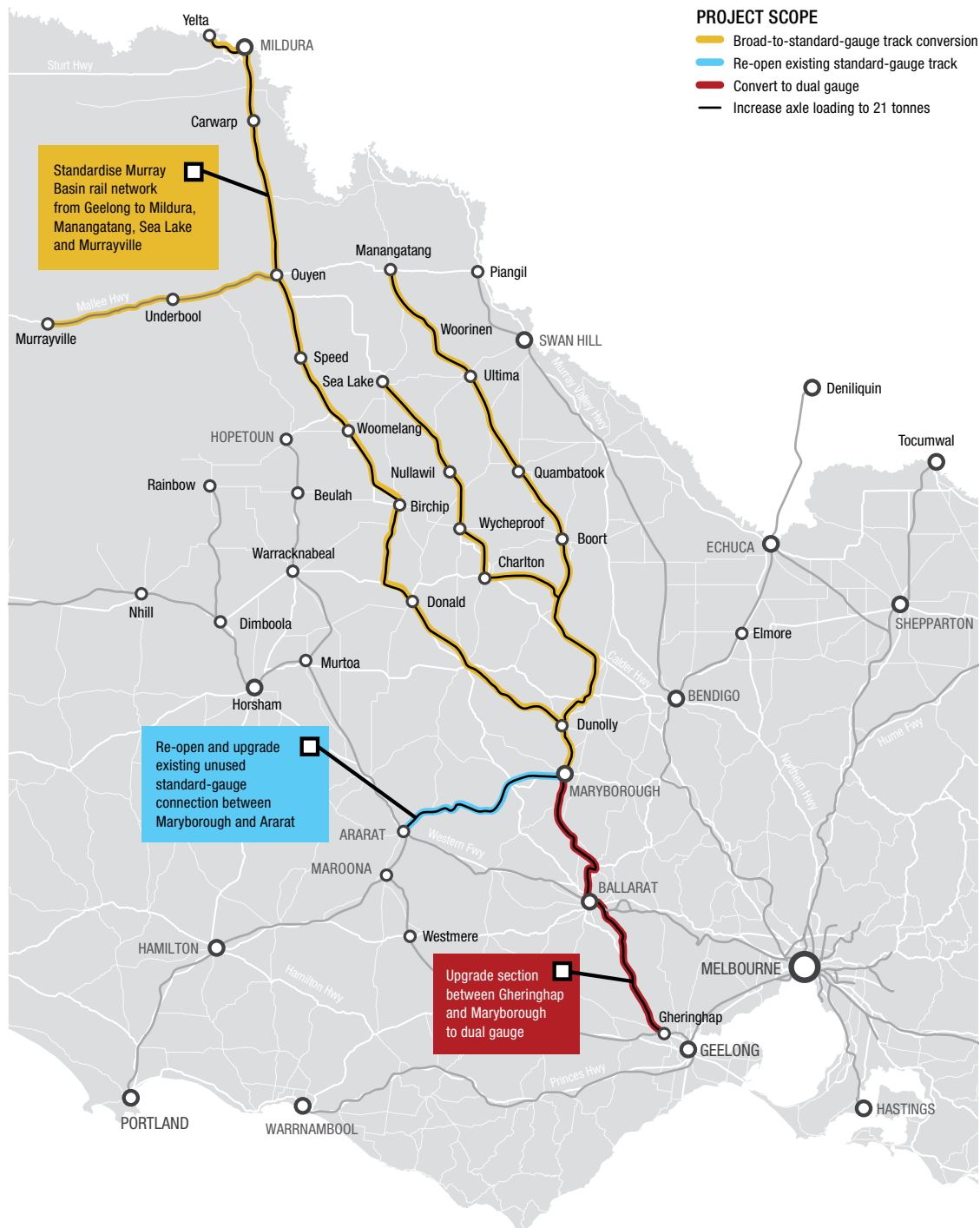
Issues the project will address

Lack of capacity: lines in the Murray Basin have an allowable axle loading of only 19 tonnes per axle.

Lack of competition between rail operators: lines in the Murray Basin restrict access to broad-gauge trains, closing access to other competitors operating standard-gauge rolling stock.

Lack of competition between ports: the two gauges have the effect of isolating the Murray Basin from the Port of Portland – rather than having the state's two bulk ports compete. The Port of Geelong has a natural advantage because it is serviced by both the broad and standard-gauge network while Portland is serviced solely by standard gauge. The Port of Portland has a deeper draft than Geelong, yet has lacked rail access to the Murray Basin.

Project map



Project scope

The project will:

- upgrade the lines in the Murray Basin from broad gauge to standard gauge
- restore and upgrade the existing standard gauge line between Ararat and Maryborough
- upgrade the lines in the Murray Basin from 19 tonne per axle to 21 tonnes per axle

- upgrade the broad-gauge line from Geelong (Gheringhap) to Ballarat (Warrenheip) to dual gauge
- upgrade the Ouyen to Murrayville line from broad gauge to standard gauge with axle loading of 19 tonnes per axle.

Importantly, the restoration of the line between Ararat and Maryborough will connect the Port of Portland to the Murray Basin, via standardised tracks. This link will allow mineral sands to be transported to Hamilton from Manangatang, eliminating a long road connection that sees trucks transporting mineral sands to the standard-gauge line at Hopetoun.

Project benefits

- Lower rail freight costs will see trains taking a larger share of the freight task in the Murray Basin. Exporters from the Murray Basin will see strong modal competition between road and rail, with more choice for freight users.
- Upgrading the lines to a 21-tonne axle loading will provide an immediate 15 per cent productivity efficiency improvement that will increase train loads by 300 to 400 tonnes. Average grain train payloads will increase to 2500 tonnes per train.
- Farmers in the Murray Basin will gain access to a deep-sea port at Portland, delivering them the efficiencies that more heavily-laden bulk carriers offer. Ships berthing at Portland can be loaded with more grain than ships berthing at Geelong.
- The ports of Geelong and Portland will more actively compete for bulk export freight from the Murray Basin.
- Rail operators from all over Australia will actively compete to provide rail services, in particular to the grain marketers and intermodal operators.
- There will be more private sector investment as bulk handlers build new loading facilities to take advantage of the efficiencies delivered by the project.
- The upgrade and standardisation of the Ouyen to Murrayville rail line – which would have otherwise become gauge isolated – will enable grain from this corridor to be carried by rail to Victoria's ports rather than travelling by road to competing ports in South Australia.

Project outcomes



- Up to an extra 500,000 tonnes of grain transported by rail per annum
- 20,000 fewer truck trips to the ports of Geelong, Melbourne and Portland per annum
- 276 construction jobs during the project's implementation
- 1130 km of standardised rail gauge (including the Murrayville line)
- direct investment by rail operators in new rolling stock and bulk handlers in new loading facilities
- flow-on investment at the ports of Melbourne, Portland and Geelong due to increased competition and as a direct result of the need to handle higher tonnages per train
- improved safety and liveability for communities in the region and near the ports as a result of reduced truck numbers.

Cost benefit analysis

Standardisation and upgrade of all the key rail lines in the Murray Basin Region produces a strong benefit cost ratio of 1.74, net present value of \$323.6m and a nominal P50 cost estimate of \$416.2m

The Murray Basin Rail Project is considered to be ready to deliver with the final approach to construction to be determined following consultation with industry.

Scope of works

The scope of works will include significant upgrades to ensure the rail track's ongoing integrity. Additional works will be required to increase the axle loading to 21 tonnes and to standardise or dual-gauge the tracks.

Upgrading the Murray Basin rail lines from a 19 tonne to 21 tonne includes:

- restoring the track formation and ballast
- bridge inspections and drainage improvements
- tie renewal and replacement of worn rail
- continuous welding of the track to enable 80km per hour train speed
- replacing life expired sleepers with new concrete timber replacement sleepers on the Yelta to Ararat, Dunolly to Manangatang and Korong Vale to Sea Lake line sections, and with timber sleepers on the Maryborough to Gheringhap dual gauge line section

- supply and placement of additional ballast and re-tamping the track after installation of new sleepers
- vegetation clearance along the track to ensure line of sight safety as required
- upgrading level crossings and signalling

Gauge standardisation includes:

- moving one rail across to the standard gauge configuration and realigning both rails on curves and bridge structures
- supply and installation of additional rail on the new dual gauge section between Warrenheip and Gheringhap
- turnout renewal involving new timber bearers and track fasteners.

Project delivery

The project will be delivered by V/Line under the direction of Public Transport Victoria (PTV).

Engagement with industry stakeholders will be a feature of the project to ensure disruption is minimised during line closures for gauge standardisation and upgrade works.

All stages of the project are capable of being completed by the end of 2018.



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More information

Further information about the project can be found on the Department of Economic Development, Jobs, Transport and Resources website at <http://economicdevelopment.vic.gov.au/>

Authorised by the Victorian Government, 1 Treasury Place, Melbourne.