

### Attachment 1: Potential Sources of Second Hand Rolling Stock

Type	Current Location	Current Owner	Availability	Comments / [Indicative Costs]
British Rail Mk II carriages	Wellington	Toll NZ Consolidated Limited	All 69 carriages imported in early 90s have been used in the Auckland SA and Wellington SW "Wairarapa" Train project.	Toll is currently purchasing and importing further BR Mk II carriages to complete the SW Train project and potentially supply more SA Train carriages to Auckland.
Silver Star Carriages	Thames	Eastern Orient	Only six carriages available.	Very old design offering little capacity improvement.
SX Carriages	Auckland	Macquarie Bank	Will probably be utilised in Auckland for up to another 5 years.	Outside useful time frame.
SX Carriages	Queensland	Queensland Rail	Queensland Rail has confirmed that they have none available.	Could be an option depending on condition of carriages. SX carriages for Auckland were actually in service when imported. <i>[Indicative cost ~\$0.850m per carriage + locomotives, based on Auckland project (2002)]</i>
Decommissioned English Electrics	Wellington	Toll NZ Consolidated Limited	One 3 car unit is temporarily out of service will be returned soon, a further 3 car unit has been out of service long term but could be returned with a major rotable overall, full refurbishment, and replacement of cannibalised components. Three more carriages have sat derelict for over 15 years at Hutt Workshops – and are probably beyond economic restoration.	Major advantage over all other options is the network compatibility, fleet interoperability and the fact that locomotives and bogies are not required. <i>[Indicative cost ~\$1.8m per 3 car]</i>
EO Locomotives	Canterbury / Picton	Toll NZ Consolidated Limited	Five 1500 V DC locomotives out of service. Toll would be willing to refurbish and put into service in Wellington.	Relatively low powered however maybe able to run with a loco at either end of a train of up to six carriages. <i>[Indicative cost ~\$1.3m per locomotive.]</i>
DC Locomotives	New Zealand	Toll NZ Consolidated Limited	No spare DC locomotives are available at present in NZ.	Possible surplus from Auckland if they were to electrify early or buy new locomotives – unlikely to be in a timeframe of use to Wellington. <i>[Indicative cost ~\$1.3m per locomotive – based on Auckland project.]</i>
Old Wairarapa Carriages	Wellington	Toll NZ Consolidated Limited	Being replaced by remanufactured SW carriages.	No further life extension is allowed on wooden body carriages.
Overlander Carriages / Locomotives	Wellington	Toll NZ Consolidated Limited	Fate of Overlander yet to be decided.	No further life extension is allowed on wooden body carriages and the two DC Locomotives already have other duties. Could at least provide 11 extra bogies pairs, however this will require an early decision to secure ahead of Auckland.

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RM Silver Fern Railcars (diesel electric)	Auckland	Toll NZ Consolidated Limited	Currently leased to ARTA, three two car sets.	Unlikely to be available in suitable timeframe. Door and seat configuration not suited to all stopping services.
Standard Gauge Double Deck Carriages	New South Wales	City Rail	None currently available.	Large number of standard gauge Sydney commuter carriages being replaced over next few years, but double deck carriages are not suitable for Wellington.
EMUs / DMUs	United Kingdom	Angel Trains	Angel own nearly all the EMUs / DMUs in UK. There may be some available but they are of a type that would not suit the Wellington network.	The available units are believed to be the very light weight and underpowered "Rail Bus – Pacers". Ride quality, power on gradients, and track gauge unsuitable.
British Rail Mk II carriages	United Kingdom	HSBC Leasing	The current source of carriages for the Wellington SW carriages and Auckland SA carriages. Toll have a number set aside for NZ and it is understood that many more carriages are soon to come out of service in the UK and would be available for export.	These carriages may require less rebuilding than the versions currently in New Zealand. As a minimum will require new power doors, new bogies and some rewiring and structural modifications to suit NZ narrow gauge bogies and couplers. Alternatively a fully modified Wellington metro carriage could be constructed, with side doors, similar to Auckland's SA carriages. <i>[Indicative cost "SW Metro"(full modification)~\$1.4m per carriage+ loco – based on Auckland project (2003)]</i> <i>[Indicative cost "SW Express"(minimum modification)~\$1.1m per carriage + loco – based on Auckland project (2003)]</i>
EMUs	South Africa	Spoornet	Previously surplus MetroRail EMUs now in demand on their system. Could be some non-powered trailer units available.	Although having the same track gauge the vehicle dimensions are too big to fit on the New Zealand structural gauge without significant structural modification. South African carriages generally offer a very basic level of fit out and comfort.
Carriages	South Africa	Spoornet	Several commuter carriages available but will require complete re-build. There are hundreds of inter-city carriages available.	For the inter-city carriages the doors are a problem.
Locomotives		Spoornet	Surplus locomotives could become available. Similar to Toll Rail GE power units.	There is a general reluctance to sell narrow gauge locomotives.
EMUs / DMUs / Carriages	Europe			In general, the wide bodied European rolling stock is not appropriate for the NZ railway clearance standards.
EMUs	Japan	JR	The Japanese operators tend to use up to about 95% of the stock service life, and then replace it with new stock. It's only at that point in time that a 2nd hand option becomes available to a buyer. In the past Japan supplied 2nd hand rolling stock to emerging markets like Indonesia, etc. but those deals were not supported with manufacturers' warranties of fitness and it was all left to the discretion of the buyers to take any risk on themselves.	Discussions have been held with representatives from Japanese railways - although track gauge and power voltage is the same, the vehicle dimensions are too big to fit on New Zealand network without significant structural modification.
DMUs	Japan	JR	There are very few DMUs on the Japanese system.	