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# WELLINGTON METRO RAIL NETWORK UPDATE

## SERVICE LEVEL IMPACTS

6 JUNE 2024 - COUNCIL WORKSHOP

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# Purpose

To provide Councillors with an overview of indicative service-level, economic and social impacts caused by rail network challenges

## AGENDA

### **1. Wellington Metro Rail Network:**

- Overview (service, roles, funding arrangements)
- Challenges - how did we get here?

### **2. Indicative service impacts: 3 scenarios**

- Scenario 1: 100% backlog funding
- Scenario 2: 50% backlog funding
- Scenario 3: 0% backlog funding

### **3. Implications**

### **4. Next steps – where to from here?**

# Wellington Metro Rail Network Overview



1 Rail Operator  
83 multi-units + 24 carriages  
5 rail lines  
48 stations

374

AVERAGE  
WEEKDAY SERVICES

11.4m

RAIL PASSENGER  
BOARDINGS IN 2023

3.6m

SCHEDULED SERVICE  
KM TRAVELLED p.a.

\$40m

RAIL REVENUE  
p.a.

374

NUMBER OF  
RAIL STAFF

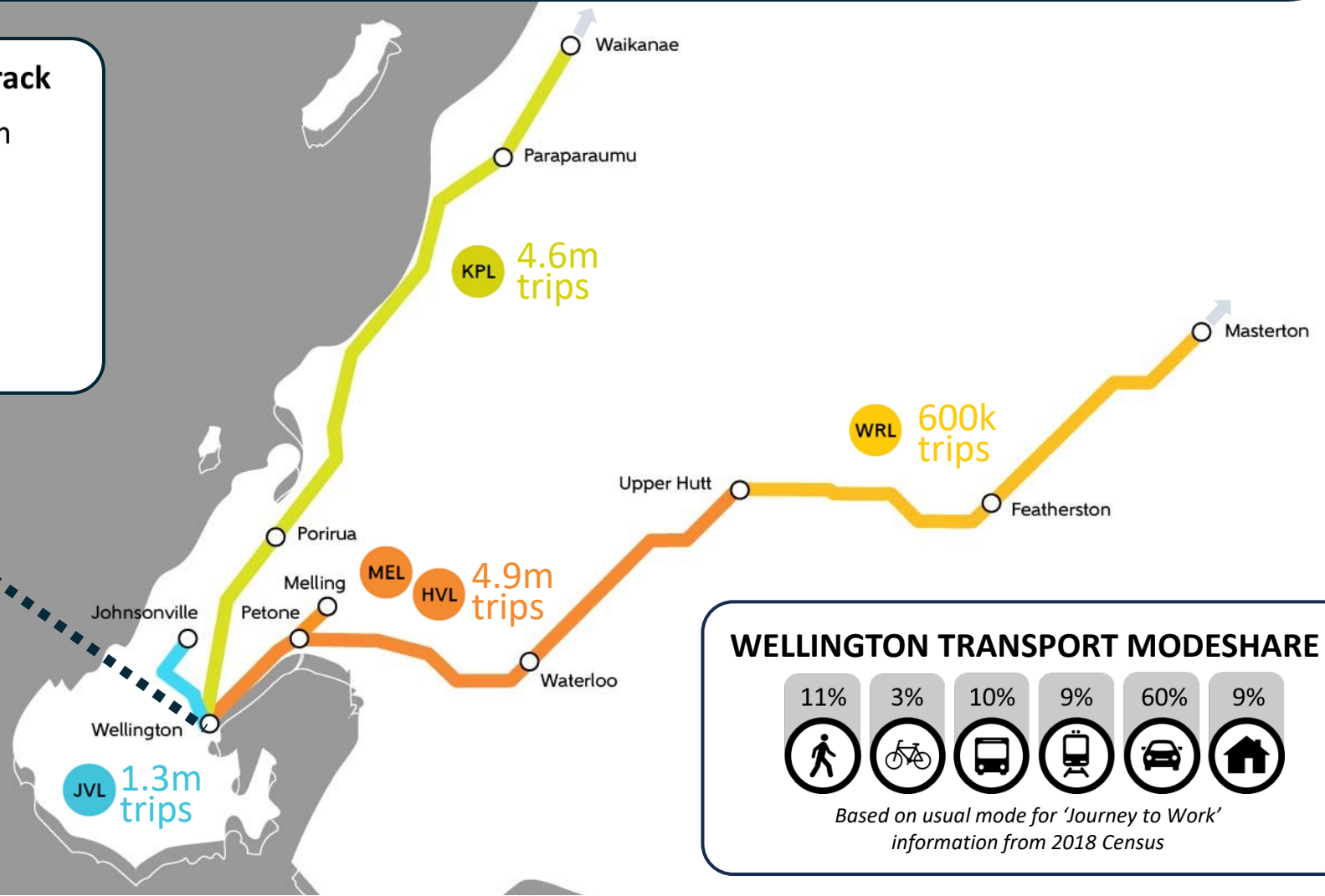
WHICH  
INCLUDES 229  
FRONT LINE  
STAFF

## Metlink Rail network has a total of 159.9km of track

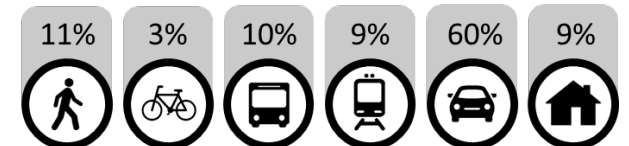
- JVL Johnsonville (Johnsonville Line) = 10.5 km
- KPL Waikanae (Kāpiti Line) = 55.4 km
- MEL Melling (Melling Line) = 13.5 km
- HVL Upper Hutt (Hutt Valley Line) = 32.4 km
- WRL Masterton (Wairarapa Line) = 91.0 km

## Journeys into Wellington CBD

- Approx 20,000 peak usage per day (most to Wgtn CBD)
- Approx. 40% of Wellington region jobs are in Wgtn CBD
- Rail accounts for 22% of all peak person trips into Wellington CBD



## WELLINGTON TRANSPORT MODESHARE



Based on usual mode for 'Journey to Work'  
information from 2018 Census

# Who's who?

The key organisations involved in the governance, operation and monitoring of the Wellington Metropolitan Rail Network are:



Procures metro rail passenger services (via Metlink brand), has strategic oversight for the Wellington public transport network and owns the fleet of commuter passenger trains on the Network



State-owned enterprise, which owns and maintains the rail network (on behalf of the Crown) and operates freight and long-distance passenger services



Provides policy oversight for the rail sector and advises the Minister and Cabinet on key funding and investment decisions



Crown entity, which regulates rail safety and invests in the land transport system



Contracted by Greater Wellington to operate metropolitan passenger rail services and maintain Metlink's rolling stock (through a sub-contract with Hyundai Rotem).

# Who funds what?

## **Metropolitan Rail Operating Model 2009 (MROM)**

sets out funding arrangements as follows:

- Crown funding (at a funding assistance rate (FAR) of 100%) for the costs to bring the rail network up to a 'steady state' network.
- Once it is up to a 'steady state', costs to maintain the network are borne by GW - which will be funded via NZTA at 51% FAR. The costs to maintain the network are agreed and funded through a contract with KiwiRail (for GW – the Wellington Network Agreement).

## **Wellington Network Agreement 2013 (WNA)**

secures GW's access to the KiwiRail network;

- KiwiRail, provides and manages the Access Rights and Network Services; these are the day-to-day operations of the network and asset renewals.
- Costs are shared between GW and KiwiRail based on overall use. (GW receives 51% FAR from NZTA)
- GW carries the largest share of the cost of the network (between 75 and 80% of the maintenance and 'current renewals'), and a share of the Network Services, Insurance, Network Control Services (train control), and KiwiRail Overhead costs.

## **Wellington Metropolitan Upgrade Programme 2017 (WMUP)**

To help bring the WMRN up to 'steady state' a number of complex infrastructure enhancements and 'deferred renewals' were identified.

- 100% Crown funded
- However, WMUP doesn't cover all 'deferred renewals' (those required to achieve 'steady state')

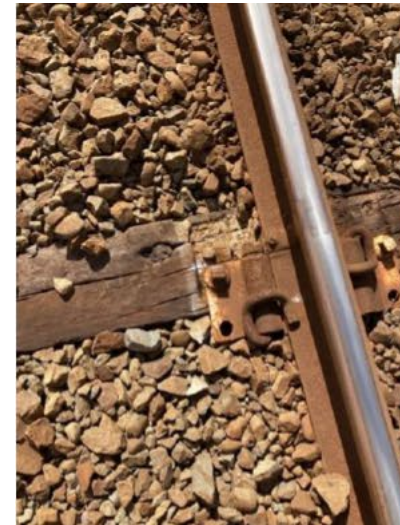
## Funding overview

Plan	Wellington Rail Programme Business (WLG Strategic Rail Plan)												
	Wellington Network Management Plan (NMP) FY25 - FY34							Rail Network Investment Programme (RNIP)	NZ Upgrade Programme (NZUP)		Regional Land Transport Plan		
Contract	Wellington Network Agreement (WNA)										LNIRIM (Governance)		
Fund		Waka Kotahi (51%)		National Land Transport Fund (NLTF)							NLTF - GWRC Horizons - Crown		
Conduit	RNIP	GWRC (49%)		RNIP		GWRL pass-thought payment: <i>Transitional rail</i>			RNIP		RNIP	GWRC	
Programme	BAU Maintenance		Renewals Services		Backlog Renewals	WMUP III	WMUP IV	WMUP Subs	WMUP V	WMUP VI a	WMUP VI b	LNIRIM	
Description	Network Mtce, Mgt and Control		Steady State Renewals		Backlog Renewals	Catch-Up track and Civil Renewals	Capacity and Resilience Upgrades	Capacity and Resilience Upgrades	New Signalling and Automatic Train Protection (ETCS)	Wellington Station Approaches'	Regional Infrastructure Enhancements	New Regional Trains and Infrastructure	
Scope	Planned asset maintenance & Inspection activities.  Network Control and Operations  Management overheads, Insurance and Traction Electricity		Asset renewals that are replaced at the optimised time to continue a 'steady state' network		All Network asset renewals that have fallen into backlog.	Wairarapa Line formation, track and drainage upgrades.  Remutaka & Tawa Tunnel track upgrades.  Resleepering 12 short tunnels.  Slope stabilisation.  Bridge replacements.	Trentham to Upper Hutt double tracking (T2UH)  Porirua Area Capacity Enhancement (PACE)	New or Upgrades to Wellington traction substations. Required to operate a RS1 LNIRIM timetable.  (Note: Originally in WMUP IV Programme)	New signalling system for Wellington Metro area.  European Train Protection System (ETCS) enabled.	Track and signalling upgrades entering Wellington Station.  Scope include, realigned crossovers and signals, Combined services route.	New signalling system for the Wairarapa Line. (Featherston to Masterton)  Additional passing loop at Woodside  Level Crossing upgrades between Upper Hutt and Masterton  Waingawa depot upgraded	Purchase new regional passenger rollingstock, replacing the exiting carriages on the Wairarapa and Manawatu lines.  Station and track upgrades  Depot and Maintenance facilities	
Cost	?	\$471m	\$124m	\$107m	\$494m	\$174m	\$145m	\$131m	\$600-700m	\$114m	\$130m	\$172m	\$702m
Timeline	Continuous (10-year totals shown) FY25 - 34					FY19 - 26	FY20 - 24	FY24 - 27 (FY31)	FY21 - 31	FY24 - 25	FY23 - 26	FY24 - 29	
Type	Maintenance		Renewal		Catch - Up Renewal			Improvements					
Delivery	KR Wellington Metro					KR Capital Projects and Asset Development (CPAD)							LNIRIM

# Challenges: How did we get here?

## Historically there has been an under-investment in the Rail Network

- MROM 'Steady State' has not been achieved (or funded)
- GW funding under WNA to KiwiRail has been used for 'deferred renewals' and insurance not current renewals
- KiwiRail has requested more funding from GW under WNA to cover a \$39m shortfall in both 22/23 & 23/24. KiwiRail has advised that;
  - if funding is not received then KR won't be able to do all renewals work required
  - it has unsuccessfully sought funding from MOT/NZTA
  - if renewals work is not done, then TSRs and/or service reductions will be required for safety
- KiwiRail has been prioritising OPEX over CAPEX, e.g. insurance



# Budget 2024 rail network funding

## Metropolitan Rail Renewals in Auckland and Wellington

This initiative provides funding to address backlog renewals to avoid critical network failure risk in Auckland and Wellington metro areas. This initiative also provides funding to address shortfalls in funding annual maintenance and renewals in Auckland and Wellington (local government portion), enabling work to be delivered to lift service reliability while the Minister of Transport's Metro Rail Operating Model review addresses respective council/Crown funding responsibilities and definitions.

Vote	2023/24	2024/25	2025/26	2026/27	2027/28	Operating Total	Capital Total
Transport	-	107.700	-	-	-	107.700	-

## Budget 2024 provides funding for:

- deferred backlog renewals **for 1 year only**
- bridging the gap between KiwiRail request for funding and GW budget (OPEX only)

# Speed restrictions & Scenario development

**Speed restrictions are used to ensure the safety of passenger and freight services on parts of the network where renewals are required or overdue**

- Greater Wellington received from KiwiRail a high-level forecast of temporary speed restrictions (TSRs) that will be required on the Wellington Metropolitan Rail Network over the coming years (these are in addition to current TSRs).
- Speed restrictions are needed until sufficient funding is found and renewal work undertaken on the rail network.

We have looked at **3 potential scenarios** that could play out, based on req. work programme and assoc. funding over a 10-year period:

**Scenario 1:** 100% backlog and WNA funding (Y1 in Budget 24)

**Scenario 2:** 50% backlog and WNA funding

**Scenario 3:** 0% backlog and WNA funding (Current 23/24)



# Impacts of a reduced rail network on the Region

## ROAD CONGESTION

The highway network does not have the capacity to accommodate more traffic at peak times.

Rail disruption would likely to result in a shift to private car use, which would:

- Critically impact peak congestion
- Increase travel times on the road network
- extend the duration of the peak
- impact our bus punctuality and reliability.

This would result in:

- additional costs for business that would likely be passed onto consumers
- negative impact on the Wellington region's attractiveness for business.

Bus replacement is not a viable option:

- Would require at least 80 - 100 single deck buses each day
- Buses subject to peak traffic congestion – no bus lanes on SH1 & SH2.

## ECONOMIC

Reduced access to Wellington CBD and increased congestion would have a negative impact on productivity - increasing costs for businesses and individuals and decreasing the attractiveness of the Wellington region as a place to live, work and invest in

Relative to other areas within New Zealand, the competitiveness of the Wellington Region would decline.

Reduced rail frequencies would also encourage more working from home – while some workers in Wellington CBD have the ability to work from home, many do not; this will affect productivity and would negatively affect businesses in Wellington CBD

Rail services, particularly increasing frequency and capacity, are widely used by TAs (e.g. HCC Spatial Plan) as a justification/rationale for housing intensification and economic development in Hutt Valley and along Kāpiti Line

## SOCIAL/ENVIRONMENT

Inability for public transport reliant commuters to get to work and education (greatest impact on people who are unable to afford private transport)

Reduced access to critical & strategic locations, including:

- Medical care for the transport dependent
- Secondary / tertiary education
- To/from Airport
- To/from major events

Downstream impacts on commercial activity (e.g. hospitality and retail, which depend on revenue from workers)

Downstream social impacts to productivity  
Increased environmental degradation due to increased private vehicle use

- Climate change
- Health (NOX and Black Carbon pollutants)

# Impacts of a reduced rail network on customers

## SCENARIO 1 (100%)

Customers will feel an impact while work is being carried out, but this will be short term until the work is carried out.

Once complete, we can resume service.

Capacity constraints will result in customers closer to Wellington Station being left behind.

## SCENARIO 2 (50%)

Track assets only

Customers will feel an impact while work is being carried out, over a longer period of time.

Capacity issues will mean that customers closer to Wellington Station will be left behind.

Impact will get incrementally worse and will not recover.

## SCENARIO 3 (0%)

Track assets only

Customers will feel an impact while work is being carried out, for a long period of time.

Capacity issues will mean that customers closer to Wellington Station will be left behind, increasing as services are reduced.

Impact will get worse steadily over a shorter period of time and will not recover.

Closure of some lines is guaranteed.

**We do not have the ability to replace the rail network with buses.**

Service Impact Summary					
	LINE	Melling	Johnsonville	Kāpiti (NIMT)	Hutt Valley / Wairarapa
SCENARIO 1	PEAK SERVICES	5 of 8 AM peak services cancelled	8 of 14 AM peak services cancelled	5 of 15 AM peak services cancelled	2 of 10 AM peak services cancelled
	DELAYS	From 18 mins to 19 mins  Recovers by FY28/29	From 23 mins to 27 mins  Recovers after FY26/27	From 60 mins to 76 mins  Recovers after FY 26/27	From 45 mins to 60 mins / From 110 mins to 126 mins Recovers by FY28/29
	LINE CLOSURE?	No	No	No	No
SCENARIO 2	PEAK SERVICES	5 of 8 AM peak services cancelled Never recover	8 of 14 AM peak services cancelled Never recover	5 of 15 AM peak services cancelled Possible recovery in 2031	2 of 10 AM peak services cancelled Unlikely to recover before 2035
	DELAYS	From 18 mins to 19 mins	From 23 mins to 29 mins	From 60 mins to 76 mins	From 45 mins to 63 mins / From 110 mins to 131 mins
	LINE CLOSURE?	Yes <i>(Note: won't reopen post RiverLink)</i>	Potential <i>(within 10 years)</i>  Yes <i>(after 10 years)</i>	No	Partial closure between Woburn - Ava Stations <i>(Note: Ava Bridge tracks and sleepers req replacement and are not funded in this scenario)</i>
SCENARIO 3	PEAK SERVICES	5 of 8 AM peak services cancelled - Never recover	8 of 14 AM peak services cancelled Never recover	5 of 15 AM peak services cancelled Possible recovery in 2031	2 of 10 AM peak services cancelled Never recover
	DELAYS	From 18 mins to 19 mins	From 23 mins to 29 mins	From 60 mins to 77 mins	From 45 mins to 64 mins / From 110 mins to 131 mins
	LINE CLOSURE?	Yes <i>(Note: won't reopen post RiverLink)</i>	Yes <i>(in FY 26 to await renewals)</i>	No <i>(Single line operation as required)</i>	Partial closure between Woburn - Ava Stations <i>(Single line operation as required)</i>

# Next Steps / Actions

## RESPONDING TO BUDGET 2024

- MROM progress needs active management and political dialogue
- Minister needs to hear and understand the Local Government position
  - How do we get heard in a credible way?
- Insurance is the difference between affordability and unaffordability – Do we need to be stronger on this point?
- How can we leverage our relationship with AT?
- GW partnership with KiwiRail to develop programme of works for the next 12 months
- We still need to plan for reduced services

## ADDITIONALLY, TO KNOW / ACTION:

- Quantify full economic impacts of service reduction on Wellington (value of rail, value of time, economic productivity etc)
- Final GPS funding (Will receive now - Sep 2024)
- RNIP – clarification of funding from KiwiRail (as a result of Budget 2024)
- Develop Comms Plan
- Report to Council
- Once funding levels determined develop service timetables (6-month lead time)

# Conclusion

**100% backlog funding (scenario 1) is the only outcome which will ensure that the rail network is preserved for the future**

Partial or no backlog funding would likely result in further decline of the rail network and force the transition of rail passengers onto other modes.