

Public Transport Business Case Development in Practice

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Today's talk

- Uses an example to illustrate some PT-specific BC considerations:
 - PT investment typically combines infrastructure and services
 - People and their response are central to a case
 - Those people come to view their services as being permanent



The example

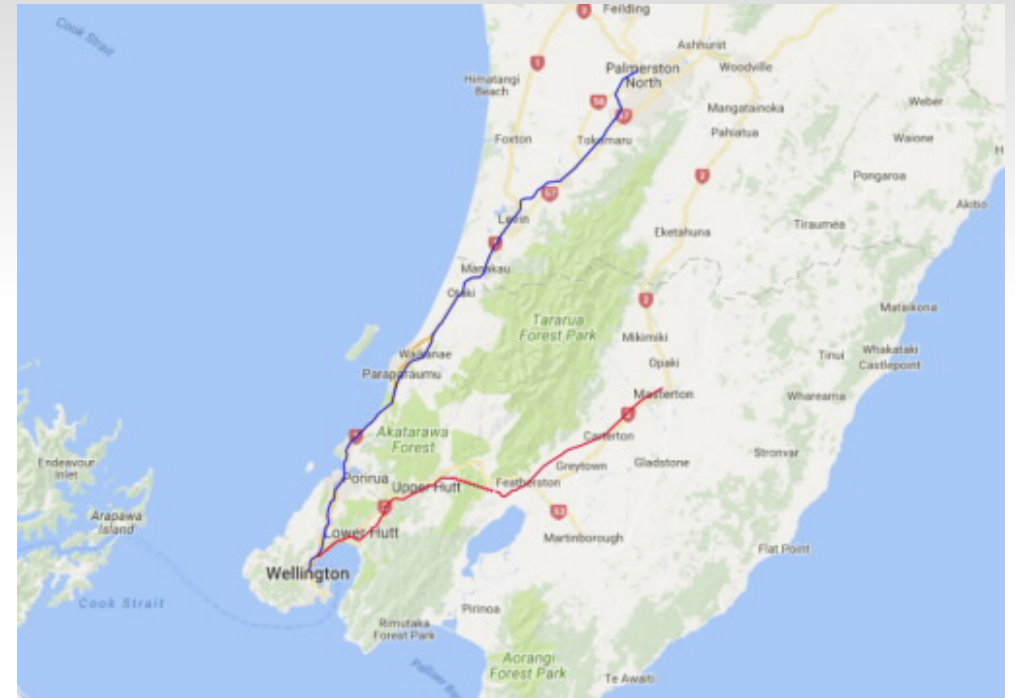
- Palmerston North-Wellington Rail Passenger Business Case
- For Horizons and Greater Wellington RCs in 2017
- With a stakeholder working party



Source: nzrailphotos.co.nz

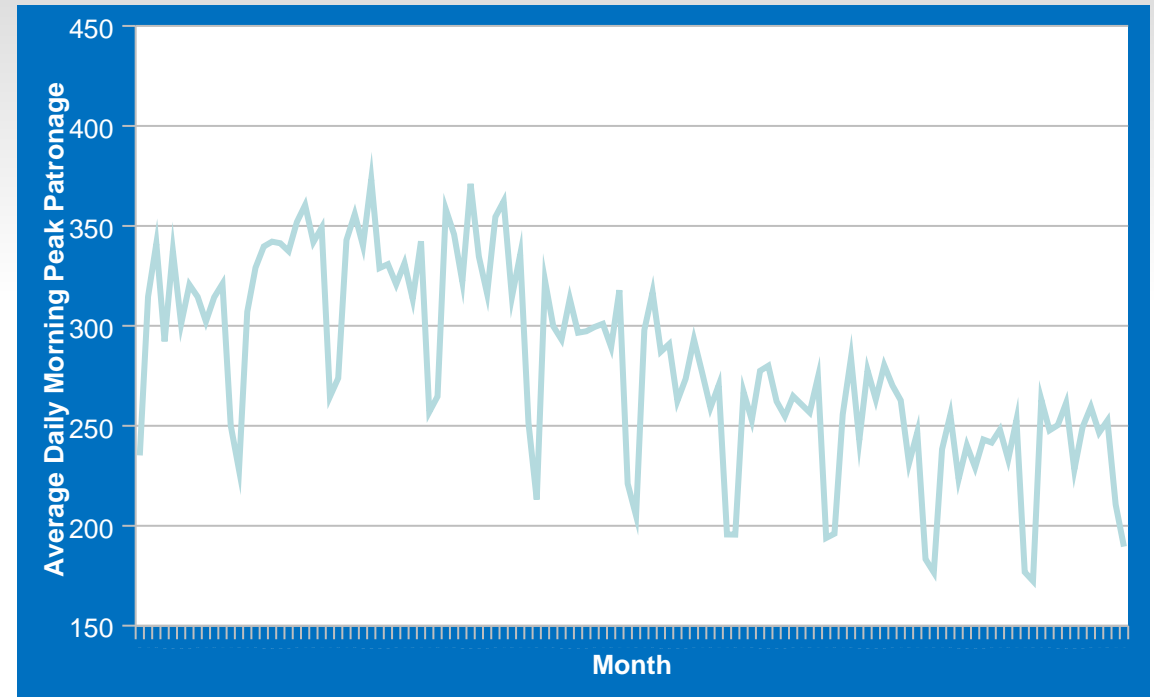
The context

- Capital Connection links PN and Wellington
- One of two long distance commuter lines
- One train in each peak
- Fully commercial 1991- 2015
- FBR rate still high



The context

- Well patronised but affected by 2011 electric network extension
- Increasing operating and maintenance costs
- Carriages require major refurbishment by 2022



The context

- Short-term funding commitment ending in 2018
- Train's withdrawal likely without this support
- But strong and organised community opposition
- What to do?



The assessment

- Problems that the train responds to:
 - **large and growing population** that is reliant on Wellington
 - **limited roading links** with congestion and resilience issues



Source: nzrailphotos.co.nz

The assessment

- Benefits of investment:
 - accessibility
 - productivity
 - transport system capacity
 - transport system resilience
- Strategic justification from transport plans and GPS



Source: nzrailphotos.co.nz

The options

- Do Minimum:
 - funding ceases and train is withdrawn
 - additional EMU service south of Waikanae
 - pax cease or switch modes
 - disbenefits



Source: nzrailphotos.co.nz

The options

- Five options, all (except last) with short-term funding to enable continued operation to 2022, then:
 - **Through Train:** refurbish by 2022 then replace in 2037
 - **Through DMU (single trip):** replace in 2022 (subject to new BC)
 - **Through DMU (double trip):** replace in 2022 (subject to new BC)
 - **Connecting DMU (+EMU):** replace in 2022 (subject to new BC)
 - **Connecting Coach (+EMU):** replace in 2018.

Indicative passenger response

	Do-Minimum	Through Train	Through DMU (Single Trip)	Through DMU (Double Trip)	Connecting DMU	Connecting Coach
Projected 40-year patronage	4.53m	6.92m	6.92m	8.76m	6.00m	5.71m
Patronage compared to through train	-35%	0%	0%	+27%	-13%	-17%

Option effectiveness and rank

	Do-Minimum	Through Train	Through DMU (Single Trip)	Through DMU (Double Trip)	Connecting DMU	Connecting Coach
Investment Objectives						
Maintains or improves accessibility	Low	High	High	High	Med	Med
Maintains or improves productivity	-	High	High	High	Med	Med
Maintains or improves system capacity	Low	High	High	High	Med	Med
Maintains or improves resilience	-	High	High	High	Med	Low
Critical Success Factors						
Strategic fit	Low	Med	High	High	Med	Med
Value for money	Low	Med	Med	High	Low	Med
Service provider capacity and capability	High	High	High	High	High	High
Affordability - operating costs (net)	Med	Low	High	High	Med	High
Affordability - capital costs	Med	Med	Low	Low	Low	Med
Achievability	High	High	Med	Med	Med	High
Overall Ranking	6	3	2	1	5	4

Preferred option

- Through DMU (double trip) option:
 - high ratings for 8 of 10 criteria including all four objectives
 - highest patronage and benefits
 - lowest subsidy on a per passenger basis
 - potential economies of scale and scope
 - the ability to match capacity to demand
 - but high transition and capital cost and dependent on new case.

Indicative 40-year economics

	Lower Bound Case	Central Case	Upper Bound Case
BCR scenarios			
Costs	5% higher	Mid-range	5% lower
Patronage growth	1%	2%	3%
Service level elasticity	0.25	0.35	0.45
Response	low	mid-range	high
BCR values			
PV benefits (\$m)	c.\$82	c.\$107	c.\$138
PV costs (funding gap - \$m)	c.\$18	c.\$11	c.\$6
BCR	4.7	9.4	24

Current status

- \$6.2 million Crown funding request made to enable short-term operation
- Funding has yet to be confirmed
- The wider business case is well under way



Source: nzrailphotos.co.nz

In conclusion

- Once established, services become 'infrastructure' that is difficult to remove
- But their system level benefits can be high
- Particularly if reinvented for the future.



Source: nzrailphotos.co.nz