



**To** Geoff Dangerfield, Chief Executive  
**From** Dave Brash, Group Manager, Planning and Investment  
**Date** 25 June 2015  
**Subject** HUTT VALLEY LINE ON-TIME RELIABILITY - BUSINESS CASE

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**PURPOSE**


This memo seeks your approval to an increase in investment of \$2,290,000 at a 100% Funding Assistance Rate (FAR) in Greater Wellington Regional Councils (GWCR) Public Transport (PT) Programme for Work Category 515 - Passenger Rail Services Track Access Agreement with KiwiRail to bring forward a programme of maintenance and renewals to address on-time reliability issues with the Hutt Valley Line.

The Hutt Valley Line (HVL) is the name for the section of the Wairarapa Line railway between Wellington and Upper Hutt. Frequent passenger services run on the line each day stopping at 18 stations.

**RECOMMENDATIONS**

It is recommended that you, acting in accordance with your delegations:

1. **Note** that there is an on time reliability issue for the Hutt Valley Line that can be alleviated by bringing forward track maintenance and renewals via the GWRC Track Access Agreement with Kiwirail.
2. **Note** that the activity has been assessed against the PIKB assessment framework of Strategic Fit, Effectiveness and Efficiency and assessed as HHM. The key efficiency benefit is reduction in travel time for public transport users. At present an average loss of travel time of 10 minutes generates negative travel time benefits of approximately \$5 million per annum, based on an average travel time value of \$5 per hour (combined peak and off peak values), delay of ten minutes and 6,382,000 passenger trips on the Hutt Valley Line.
3. **Approve** an increase in investment of \$2,290,000 in GWRC Work category 515 - Passenger Rail Services at 100% FAR.

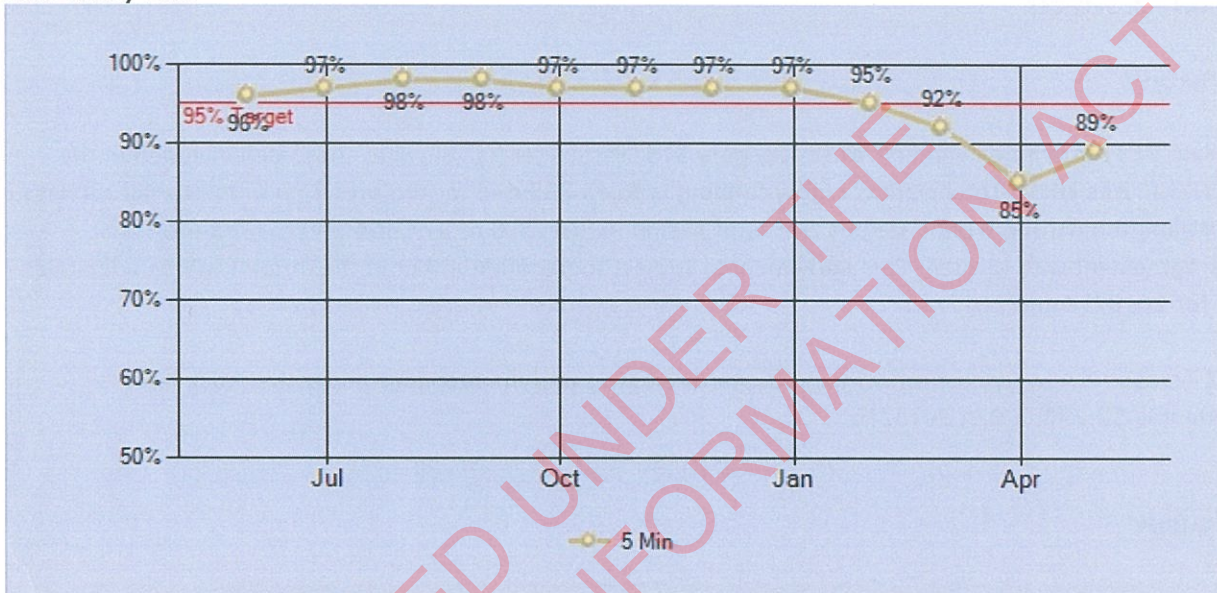
Approved	Date
	25/6/15
Geoff Dangerfield, Chief Executive	

## PROBLEM

The Hutt Valley Line (HVL) has experienced deterioration in asset level of service, resulting in loss of journey time reliability and travel time predictability. This level of service loss is due to both general asset deterioration now impacting on level of service and impact of weather events on the HVL. The level of service impact is increasing use of speed restrictions on the HVL allowing services to continue to operate but with longer journey times. This has flow on impacts on travel time predictability and of journey time reliability due to longer trips, stacking at stations due and subsequent turnaround times at end of journeys.

Figures 1 below illustrates this loss of journey time reliability and travel time predictability. Total travel time loss varies on a day-to-day basis, but the average estimate is 10 minutes of lost travel time.

### Hutt Valley Line



Issues driving the on-time performance are catch-up renewals and maintenance on the HVL. This work is programmed by KiwiRail, however funding for these works come from KiwiRail capital and payments under the Track Access Agreement with GWRC. KiwiRail priorities for investment are aligned to those set out in the KiwiRail turnaround plan, which focusses investment on freight movement, as a result the programme of works for the HVL is a lower priority compared to the NZ Transport Agency priority for metro-rail services for urban customers.

## OPPORTUNITY

A one-off increase of \$2,290,000 in investment by the NZ Transport Agency in the Track Access Agreement between GWRC and KiwiRail will increase the priority for asset renewal and maintenance on the HVL to address journey time reliability and travel time predictability. This opportunity supports the GPS 2015-18 short to medium term result for Public transport of increased network productivity on main routes within our major metropolitan area. The one-off increase will, bring forward and substantially address the deferred maintenance. The additional benefit for KiwiRail is the avoidance of penalties as a result of the metro PT services not meeting their on-time performance targets.



This increase brings the total forecasted track access 2015/16 investment from \$17.304m<sup>1</sup> to \$19.594m.

### **Options**

In the absence of investment in HVL maintenance and renewals there will be an ongoing loss of journey time reliability and travel time predictability affecting the ability of the HVL to maintain its level of service and address peak period congestion for the Wellington region.

With KiwiRail priorities for investment aligned to those set out in the KiwiRail turnaround plan, which focusses investment on freight movement, the only option to increase priority of works on the HVL is to increase investment in the Track Access Agreement to bring forward works in the HVL asset management programme.

The Track Access Agreement is a component of the GWRC PT Programme under Work Category 515 - Passenger rail services.

### **NLTP Status**

The GWRC PT Programme including Work Category 515 "Passenger Rail Services" has been included in the 2015/18 NLTP as **HHM**. Total work category funding is \$145,773,449 for the provision of metro rail services in the Wellington. Within Work Category 515 is provision in 2015/16 of \$17,304,000 to fund the Track Access Agreement with Kiwirail. This agreement is subject to negotiation but in the interim will be adjusted by CPI for 2016/17 and 2017/18.

The NZ Transport Agency cost for bringing forward renewals and maintenance under the Track Access Agreement is \$2,290,000 in 2015/16.

### **ASSESSMENT**

The assessment framework is set out in the planning and investment knowledge base (PIKB) <http://www.pikb.co.nz/home/assessment-framework/> for the 2015-18 NLTP using Strategic Fit for [Public Transport Programmes](#) (which incorporates Work Category 515 Passenger rail Services with Track Access Agreement costs being a qualifying activities). [Effectiveness](#) was assessed as set out in PIKB with the Wellington RPTP and Regional Rail Plan as supporting evidence for effectiveness. Efficiency was assessed on Service Programme Benefits Cost Appraisal and a calculation of Travel time disbenefits under the Economic Evaluation Manual (EEM).

#### **Strategic Fit, Effectiveness and Efficiency**

Investment in bringing forward renewals and maintenance under the GWRC Track Access Agreement with Kiwirail has been assessed against the framework in the planning and investment knowledge base<sup>2</sup> and with consistency to programme profile for GWRC PT Services. The assessment profile for this project has been determined as being of **High** strategic fit, **High** effectiveness and **Medium** economic efficiency via the Service Programme Benefits Cost Appraisal developed to assess the economic efficiency of PT programmes.

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<sup>1</sup> Excluding performance fees, incident fees and contribution to Silverstream bridge. These adjustments could be a further \$2.3m.

<sup>2</sup> See [www.pikb.co.nz](http://www.pikb.co.nz)

The investment achieves a **'High'** strategic fit as it has the opportunity to address severe congestion in a major urban area. This is evidenced in travel time and journey reliability measures on main corridors and arterials across the Wellington network.

The investment is assessed as **'High'** criteria for effectiveness, being the overall lowest rating of all the six components of the criteria for effectiveness, being outcomes focussed, integrated, correctly scoped, affordable, timely and confidence. This activity provides for consistency of level of service, consistent with the current network and current and future activities, is appropriate in the scale of the opportunity and mitigates adverse impacts on other results, is affordable and has traded off the best whole of life cost approach, delivers benefits in a timely manner and delivers enduring benefits, and manages risk to outcomes.

This investment is assessed in **'Medium'** economic efficiency via the Service Programme Benefits Cost Appraisal and with consideration of the of travel time dis-benefits of \$5m identified in the EEM.

### **Review of Economic Efficiency**

The Service Programme Benefits Cost Appraisal Tool has been developed by the NZ Transport Agency to assess economic efficiency of investments in Public Transport programmes.

As detailed in the Planning and Investment Knowledge Base (PIKB), the Transport Agency requires all investments to be assessed across the Investment Assessment Framework (IAF). This includes both public transport service and operations programmes and maintenance programmes. As part of this assessment, the NZ Transport Agency determines both the efficiency of the existing service programme as of now, and in future and any intended service improvements to ensure what the NZ Transport Agency is investing in is value for money, and that the investment and service provision is being optimised. The Service Programme Benefits Cost Appraisal Tool provides the methodology and an Excel dashboard tool to complete this appraisal.

Under the Benefit Cost Appraisal tool the impact of increased investment in the GWRC programme is a Benefits to Efficiency ratio for the GWRC rail programme of 4.8.

Further analysis based on the Economic Evaluation Manual for Travel Time benefits for Public Transport Users identifies that non-investment will result in loss of travel time dis-benefits of approximately \$5,000,000 per annum (6.3 million passengers with 10 minutes travel delay, with average \$5 per hour Travel Time benefit).

### **NZ Transport Agency Outcomes and Synergies**

The NZ Transport Agency is seeking outcomes of journey time reliability and travel time predictability for urban customers. Investment in Hutt Valley Line On-Time performance has a direct impact on the NZTA outcome Efficiency - 100% of Benefits.

### **Cashflow**

To facilitate the advancement of renewals and maintenance on the Hutt Valley Line (HVL) investment at 100% FAR in GWRC PT Programme -Work Category 515 (Passenger Rail services) by the NZ Transport Agency is recommended. Funding and cashflow impacts have been agreed with National Manager Investment Frameworks.

The Cashflow profile for the activity is:

Year	2015/16	2016/17	2017/18	All years
<b>\$m Increase/(decrease)</b>				
<b>Wk Cat 515: Track Access Agreement</b>				
GW Share	7.614	7.690	7.767	<b>23.070</b>
NZTA Share	9.690	9.787	9.885	<b>29.362</b>
NZTA HVL Investment	2.290	-	-	<b>2.290</b>
<b>Total Cost</b>	<b>19.594</b>	<b>17.477</b>	<b>17.652</b>	<b>54.723</b>

### Land Transport Management Act and Funding Availability

The Investment Frameworks Manager confirms there are sufficient funds available from the recommended source to allocate to this activity and that sections 20(2) and 20(5) of the LTMA has been satisfied, and that the matters in section 20(3) have been taken into account

No Conditions are considered necessary for this activity. The GWRC PT programme is also formally assessed within TIO.

RELEASED UNDER THE OFFICIAL INFORMATION ACT