



If calling please ask for: Democratic Services

8 February 2018

## **Sustainable Transport Committee**

Order Paper for the meeting of the Sustainable Transport Committee to be held in the Council Chamber, Greater Wellington Regional Council, Level 2, 15 Walter Street, Te Aro, Wellington

**Wednesday, 14 February 2018 at 9.30am**

### **Membership**

Cr Donaldson (Chair)  
Cr Ponter (Deputy Chair)

Cr Blakeley  
Cr Gaylor  
Cr Laban  
Cr Lamason  
Cr Ogden  
Cr Swain

Cr Brash  
Cr Kedgley  
Cr Laidlaw  
Cr McKinnon  
Cr Staples

***Recommendations in reports are not to be construed as Council policy until adopted by Council***

## Sustainable Transport Committee

**Order Paper for the meeting to be held on Wednesday, 14 February 2018 in the Council Chamber, Greater Wellington Regional Council, Level 2, 15 Walter Street, Te Aro, Wellington at 9.30am**

### Public Business

		<b>Page No</b>
1. Apologies		
2. Declarations of conflict of interest		
3. Public participation		
4. <a href="#">Confirmation of the Public minutes of 5 December 2017 and the Public Excluded minutes of 5 December 2017</a>	<b>Report 17.500</b> <b>Report PE17.501</b>	<b>3</b> <b>7</b>
5. <a href="#">Action items from previous Sustainable Transport Committee meetings</a>	<b>Report 18.25</b>	<b>9</b>
6. Let's Get Wellington Moving programme update	<b>Oral</b>	
7. <a href="#">Wairarapa Rail Performance</a>	<b>Report 18.21</b>	<b>11</b>
8. <a href="#">General Managers' report to the Sustainable Transport Committee meeting 14 February 2018</a>	<b>Report 18.3</b>	<b>25</b>



**greater WELLINGTON**  
REGIONAL COUNCIL  
Te Pane Matua Taiao

**Please note that these minutes remain unconfirmed until the Sustainable Transport Committee meeting on 14 February 2018**

**Report 17.500**

5/12/2017

File: CCAB-20-433

**Public minutes of the Sustainable Transport Committee meeting held on Tuesday, 5 December 2017, in the Council Chamber, Greater Wellington Regional Council, Level 2, 15 Walter Street, Te Aro, Wellington at 10.01am**

**Present**

Councillors Donaldson (Chair), Blakeley, Brash, Gaylor, Kedgley, Laban, Laidlaw, Lamason, McKinnon, Ogden, Staples and Swain.

**Public Business**

**1 Apologies**

*Moved*

*(Cr Donaldson/ Cr Laidlaw)*

*That the Committee accepts the apology for absence from Councillor Ponter.*

The motion was **CARRIED**.

**2 Conflict of Interest**

There were no declarations of conflict of interest.

**3 Public Participation**

There was no public participation.

**4 Confirmation of the Public minutes of 31 October 2017 and the Public Excluded minutes of 31 October 2017**

*Moved*

*(Cr Staples/ Cr McKinnon)*

*That the Committee confirms the public minutes of the meeting of 31 October 2017,  
Report 17.437.*

The motion was **CARRIED**.

*Moved* (Cr Staples/ Cr McKinnon)

*That the Committee confirms the public excluded minutes of the meeting of 5  
December 2017, Report PE17.438.*

The motion was **CARRIED**.

**5 Action items from previous Sustainable Transport Committee meetings**

Wayne Hastie, General Manager, Public Transport, spoke to the report.

**Report 17.486** File ref: CCAB-20-428

*Moved* (Cr Gaylor/ Cr Blakeley)

*That the Committee:*

- 1. Receives the report.*
- 2. Notes the content of the report.*

The motion was **CARRIED**.

**Noted** Officers agreed to email the responses received from Chief Executives of bus operators regarding the profile of classification of all buses currently operating in the Wellington Region to councillors once they are received.

**6 Let's Get Wellington Moving Programme update**

**Oral presentation**

Luke Troy, General Manager, Strategy, updated the Committee on the Let's Get Wellington Moving Programme.

**7 General Managers' report to the Sustainable Transport Committee meeting 5 December 2017**

Wayne Hastie, General Manager, Public Transport, and Luke Troy, General Manager, Strategy, spoke to the report.

**Report 17.461** File ref: CCAB-20-427

*Moved* (Cr Lamason/ Cr Gaylor)

*That the Committee:*

1. *Receives the report.*
2. *Notes the content of the report.*

The motion was **CARRIED**.

**Noted** Officers agreed to provide an estimated impact on emissions profile if NZ Bus do not have 50% new buses operating during the PTOM and bus transition period.

**Noted** Officers agreed to provide a plan of proposed community education opportunities regarding the stormwater treatment and rain gardens installed at the Porirua Park and Ride.

**Noted** Officers agreed to provide a schedule of penalty regimes for public transport to the Committee.

**Noted** Officers agreed to share the findings of a report on the noise and nuisance of diesel buses in response to issues raised by Herwin Bongers in public participation on 31 October 2017 with the Committee once the report is complete.

**8 Exclusion of the public**

**Report 17.490**

File ref: CCAB-20-431

*Moved*

*(Cr Gaylor/ Cr Lamason)*

*That the Committee:*

*Excludes the public from the following part of the proceedings of this meeting namely:*

1. *Update on PTOM and bus transition*

*The general subject of each matter to be considered while the public is excluded, the reasons for passing this resolution in relation to each matter and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 (the Act) for the passing of this resolution are as follows:*

<b><i>General subject of each matter to be considered:</i></b>	<b><i>Reason for passing this resolution in relation to each matter</i></b>	<b><i>Ground under section 48(1) for the passing of this resolution</i></b>
<ol style="list-style-type: none"> <li>1. <i>Update on PTOM and bus transition</i></li> </ol>	<p><i>The information in this report relates to bus service contracting in the Wellington Region. Release of the information contained in this report would likely prejudice GWRC's negotiations with bus operators as the report outlines matters</i></p>	<p><i>That the public conduct of the whole or the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 7(2)(i) of</i></p>

*that are the subject of the Act (i.e to carry out negotiation. GWRC has not negotiations without been able to identify a public prejudice). interest favouring disclosure of this particular information in the public proceedings of the meeting that would override this prejudice.*

*This resolution is made in reliance on section 48(1) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by section 6 or section 7 of that Act which would be prejudiced by the holding of the whole or the relevant part of the proceedings of the meeting in public are as specified above.*

The motion was **CARRIED**.

The public part of the meeting closed at 11.15am.

B Donaldson  
(Chair)

Date:



**greater WELLINGTON**  
REGIONAL COUNCIL  
Te Pane Matua Taiao

**The matters referred to in these minutes were considered by the Sustainable Transport Committee on 5 December 2017 under public exclusion. These minutes do not require confidentiality and may be considered in the public part of the meeting.**

**Please note that these minutes remain unconfirmed until the Sustainable Transport Committee meeting on 14 February 2018**

**Report PE17.501**

5/12/2017

File: CCAB-20-434

**Public excluded minutes of the Sustainable Transport Committee meeting held on Tuesday, 5 December 2017, in the Council Chamber, Greater Wellington Regional Council, Level 2, 15 Walter Street, Te Aro, Wellington at 11.36am**

**Present**

Councillors Donaldson (Chair), Blakeley, Brash, Gaylor, Kedgley, Laban, Laidlaw (until 12.27pm), Lamason, McKinnon, Ogden, Staples and Swain.

## **Public Excluded Business**

### **1 Update on PTOM and bus transition**

**Report PE17.489**

File: CCAB-20-430

Deborah Hume, Public Transport Transformation Programme Director, Wayne Hastie, General Manager, Public Transport, and Andrew Cooper, Programme Director, Bus Services Transformation, spoke to the report.

Councillor Laidlaw left the meeting at 12.27pm during consideration of this item.

*Moved*

*(Cr Lamason/ Cr Brash)*

*That the Committee:*

- 1. Receives the report.*
- 2. Notes the content of the report.*

3. *Endorses the management actions proposed or underway in this report to implement Council's PTOM Bus resolutions.*

The motion was **CARRIED**.

The public excluded part of the meeting closed at 12.54pm.

B Donaldson  
(Chair)

Date:



**Report** 18.25  
Date 8 February 2018  
File CCAB-20-442

**Committee** Sustainable Transport Committee  
**Author** Wayne Hastie, General Manager, Public Transport

## Action items from previous Sustainable Transport Committee meetings

[Attachment 1](#) lists items raised at Sustainable Transport Committee meetings that require actions or follow-ups from officers. All action items include an outline of current status and a brief comment. Once the items have been completed and reported to the Sustainable Transport Committee they will be removed from the list.

No decision is being sought in this report. This report is for the Committee's information only.

### Recommendations

*That the Committee:*

1. *Receives the report.*
2. *Notes the content of the report.*

Report prepared by:

**Wayne Hastie**  
General Manager, Public  
Transport

**Attachment 1:** Action items from previous Sustainable Transport Committee meetings

## Attachment 1 to Report 18.25

## Action items from previous Sustainable Transport Committee meetings

Meeting date	Action point	Status and comment
31 October 2017	<p><b>Resolution</b></p> <p><i>Requests the Chief Executive to report back to the Committee on the cost and logistics of monitoring the diesel emissions of the diesel buses in the Wellington fleet.</i></p>	<p><b>Status:</b> <i>Completed</i></p> <p><b>Comments:</b></p> <p>The requested report back is included in the General Manager's report to the Sustainable Transport Committee meeting of 14 February 2018.</p>
5 December 2017	<p><b>Noted</b></p> <p><i>The Committee requested officers to email the responses received from Chief Executives of bus operators regarding the profile of classification of all buses currently operating in the Wellington Region to councillors once they are received.</i></p>	<p><b>Status:</b> <i>Completed</i></p> <p><b>Comments:</b></p> <p>A summary of the bus profile of all buses currently operating was presented to Councillors at the Council workshop of 7 February 2018.</p>
5 December 2017	<p><b>Noted</b></p> <p><i>The Committee requested officers to provide an estimated impact on emissions profile if NZ Bus do not have 50% new buses operating during the PTOM and bus transition period.</i></p>	<p><b>Status:</b> <i>Completed</i></p> <p><b>Comments:</b></p> <p>A response to the request was presented to Councillors at the Council workshop of 7 February 2018.</p>
5 December 2017	<p><b>Noted</b></p> <p><i>The Committee requested officers to provide a plan of proposed community education opportunities regarding the stormwater treatment and rain gardens installed at the Porirua Park and Ride.</i></p>	<p><b>Status:</b> <i>Awaiting action</i></p>
5 December 2017	<p><b>Noted</b></p> <p><i>The Committee requested officers to provide a schedule of penalty regimes for public transport to the Committee.</i></p>	<p><b>Status:</b> <i>Completed</i></p> <p><b>Comments:</b></p> <p>A response to the request was presented to Councillors at the Council workshop on 7 February 2018.</p>



<b>Report</b>	<b>2018.21</b>
Date	31 January 2018
File	CCAB-20-439
<b>Committee</b>	<b>Sustainable Transport</b>
<b>Author</b>	<b>Angus Gabara, Manager, Rail Operations</b>

## Wairarapa Rail Performance

### 1. Purpose

To provide analysis on the recent performance of the Wairarapa rail service and outline the measures and initiatives currently underway.

### 2. Background

The customer experience on Wairarapa rail services has been severely impacted by generally poor punctuality, occasional major disruptions, high passenger loading on certain services, and of late, under-performing air conditioning.

The challenges facing the Wairarapa line differ in a number of fundamental ways from other lines in the Metlink passenger rail network:

- The length of the journey/line is much longer (Masterton is 60kms beyond Upper Hutt Station)
- The track infrastructure is near life expired and includes an 8.8km tunnel
- The signalling system is basic
- All of the track north of Trentham is single tracked
- All services must pass through the busy Hutt Valley
- There are a low number of services, so each service delay has a big impact on overall line performance
- The line north of Upper Hutt is not electrified so only different and limited rolling stock is available
- Previous initiatives (additional newer carriages, more powerful locomotives, timetable changes etc) have generated significant growth which places increased expectation and pressure on aging assets.

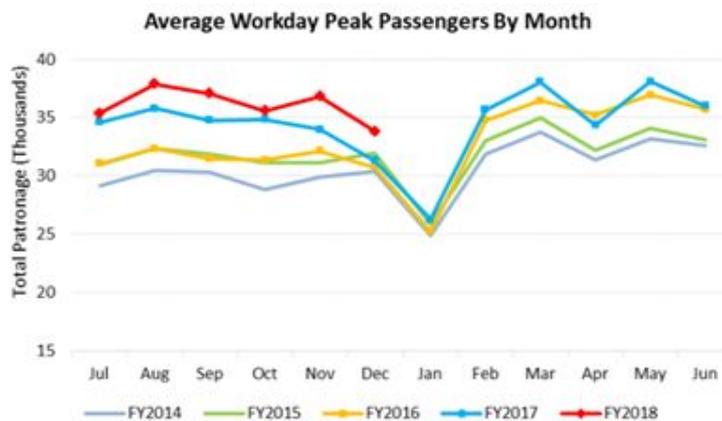
It is worth noting, perhaps incongruously, that peak patronage on this line is up **5.3%** year-to-date to December 2017 and customer satisfaction improved by **10%** in the latest survey. These statistics provide all the more reason why, despite the challenges, our customers deserve a better service and a number of initiatives are underway to improve as many aspects as possible.

While there are limited quick fixes to the infrastructure challenges, even in the medium term, it is important to mitigate impacts as much as possible and ensure that steps are taken to secure longer term improvements.

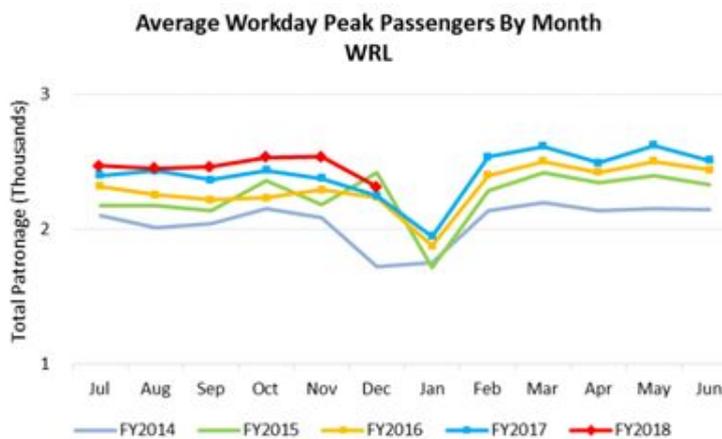
### 3. Rail patronage

Rail patronage continues to grow strongly across the network (up 7.1% year-to-date to December). The best trend indicator of growth is average workday peak passengers by month.

The table below is the combined peak (both AM and PM) patronage for the total Metlink rail network (including Wairarapa services). The approximate workday average of 36,000 peak customers in November FY2018 represents an average of 18,000 individual rail customers using the trains at peak times (most likely to and from work or study) each day during that month.



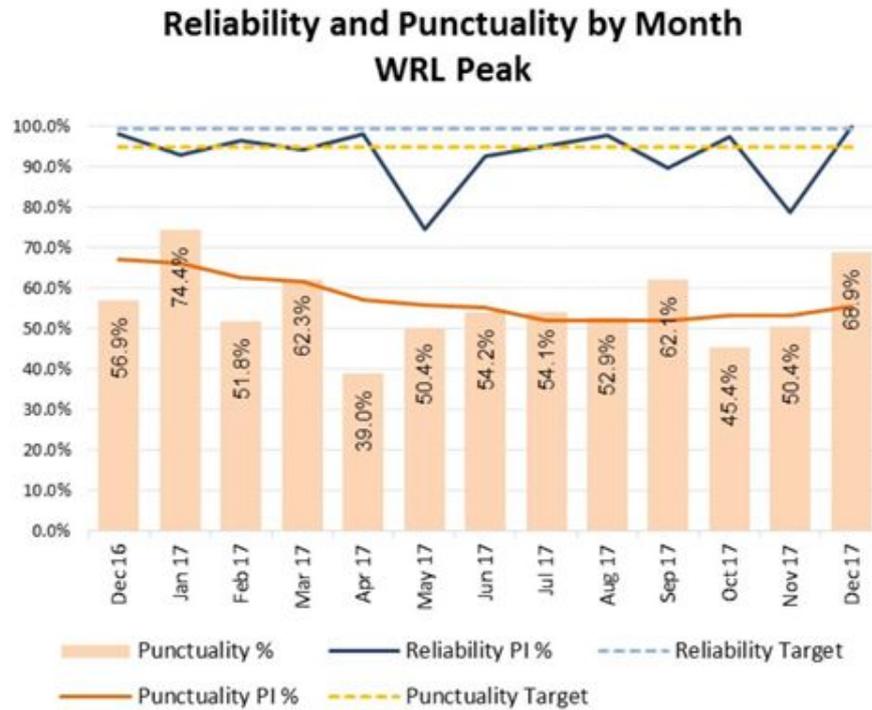
As mentioned above similar strong growth (5.3%) is seen on the Wairarapa line using the same measure, as shown below.



#### 4. Performance metrics

Prior to the air conditioning issues, the majority of the recent complaints and media attention are related to reliability, punctuality and passenger capacity.

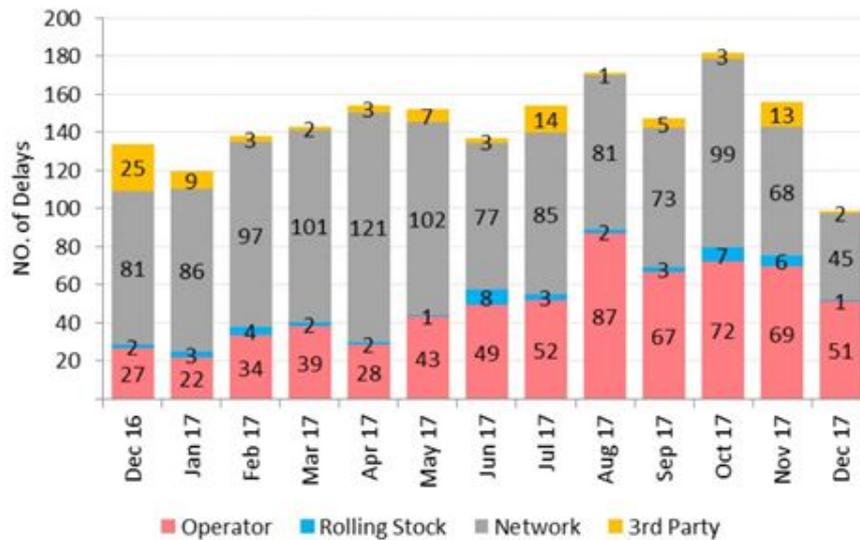
##### 4.1 Wairarapa rail peak services reliability and punctuality



The improvement in punctuality in December to **68.9%** (up from **50.4%** in November) is a step in the right direction. Unfortunately this change will have coincided with summer heat speed restrictions and is still well below the performance of the electrified lines which averaged around 90% in December.

It should be noted that under the older measurement system (that only measured manually in and out Wellington Station) these results would be about 5 - 6% higher.

### Punctuality Failures by Group Responsible WRL

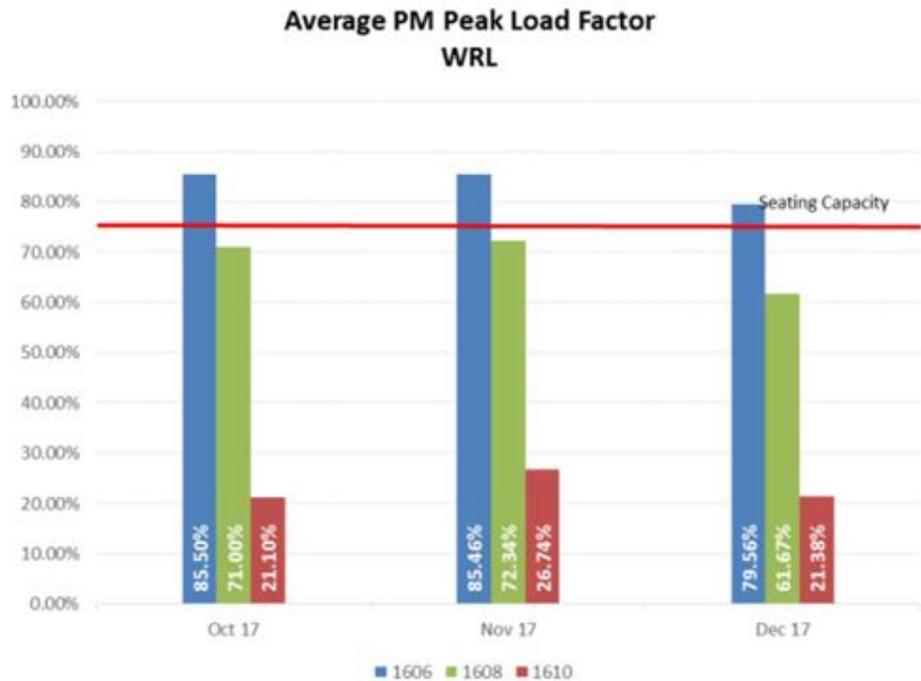
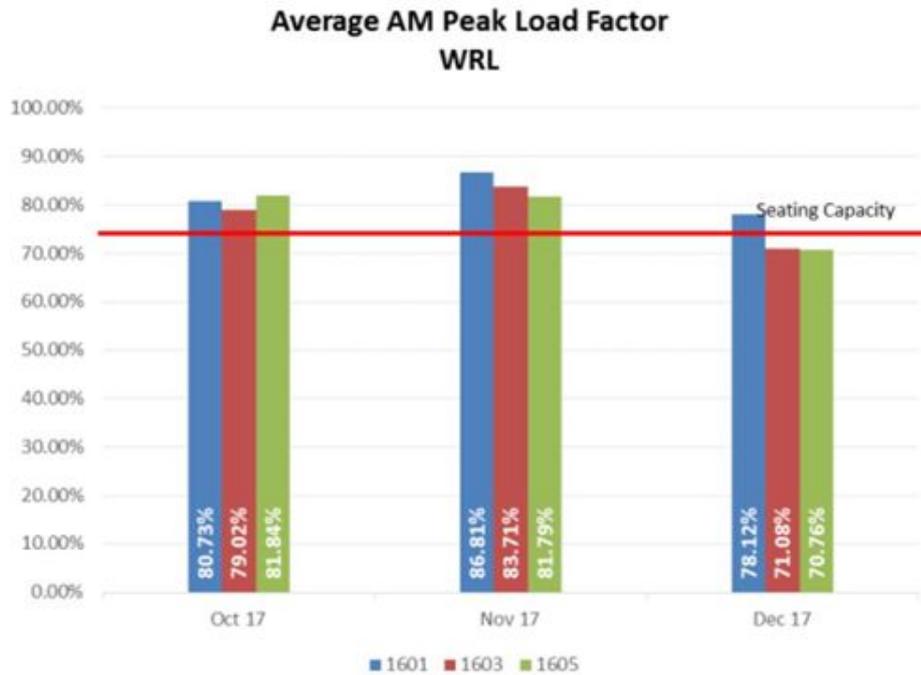


The above graph depicts the groups responsible for punctuality failures. Clearly, in most months the state of the track network is the main contributor to delays. Operator-caused delays have had a significant impact in the last five months. Rolling Stock caused delays, while being a minor contributor in the number of incidents, when they do happen tend to take much longer to recover from, therefore having a far greater impact on customers due to the age and scarcity of carriage and locomotive stock.

#### 4.2 Wairarapa rail services peak customer loads

The graphs below show the peak load factors for the three AM and PM peaks services. The red line represents seating capacity and the service numbers represent the following timetabled departures:

Service Number	AM Peak (dpt. Masterton)	Service Number	PM Peak (dpt. Wellington)
1601	5.46am	1606	4.25pm
1603	6.20am	1608	5.30pm
1605	6.47am	1610	6.18pm



As the graph depicts, AM peak services have a maximum of about 50 people standing, across between 6 to 8 carriages, by the time it reaches Wellington station. On AM peak services on the electrified network it is not uncommon to have between 50-75 people standing on a single 2-car unit at Wellington Station.

However the electrified Matangi units are specifically designed to support this level of metropolitan commuter capacity.

The imbalance on PM peak services on the Wairarapa line is clearly shown in the second graph above. Unsurprisingly, this is the service that has received the most complaints regarding the insufficient cooling in the recent spell of hotter weather.

## **5. Initiatives**

### **5.1 Immediate focus**

Below is a list of actions taken by Metlink to respond to recent concerns from customers on Wairarapa services since December 2017.

#### December

- Announced independent investigation into a series of earlier mechanical rolling stock issues that caused significant customer disruption and discomfort. SNC-Lavalin Rail & Transit PTY Ltd, New Zealand will conduct the investigation and a brief description of the scope of the investigation is included as [Attachment 1](#).
- Senior GWRC officers met with Lyn Patterson, the mayor of Masterton, council officers, Members of Parliaments, and representatives, to discuss short and long term issues on the line
- Provided a day's free travel for beleaguered Wairarapa customers leading up to Christmas
- Announced a 30% discount on Wairarapa 10-trip and monthly passes for February.

#### January

17/1: Temperature data loggers installed in carriages to monitor trends

19/1: Senior GWRC officers met with local Wairarapa councillors, council officers, Members of Parliament, and representatives to discuss a joint approach in support of business cases on funding infrastructure renewals

22/1: Temperature and air-conditioning data sent to a rail air-conditioning specialist in Australia for analysis

22/1: GWRC Chair and CEO met Minister of Transport and other members of Labour Cabinet to discuss business case and opportunities for funding

24/1: Sales of discounted monthly passes starts

25/1: GWRC team begins trialling changes to ventilation system to improve performance - including:

- Running air-conditioning all day

- Curtains pulled, keeping doors shut
- Cutting new vents into a/c risers (see image below) in the saloons



26/1: GWRC agrees process with Tranzit and Trandev for additional buses to meet late (due to track heat restrictions) running Wairarapa services

29/1: Air-conditioning specialist begins work in Wellington on assessing system performance

29/1: Introduced two bus alternatives for 4:25pm WLG-MAS service to mitigate crowding and additional heat load

29/1: Begun offering ice blocks on the 4:25pm service from Wellington.

30/1: Air-conditioning modifications achieved testing carriage temperature at 18 degrees all while sitting empty in the sun

30/1: On-train posters explaining actions on air-conditioning, and request for line upgrade funding

30/1: Discounted 10-trip tickets go on sale

31/1: Air-conditioning modifications carried out on all 8-cars (of 4:25pm) train.

31/1: We received the following feedback on social media:



### Other actions

We are investigating adding another carriage to the 4:25pm (to make a 9-car) to relieve overcrowding on what is the busiest Wairarapa service. This is made more possible by the modifications to allow the different carriage types to be more compatible. Operational complexities still need to be managed in regard to platform lengths, generator capacity and passenger safety.

Since December, GWRC has engaged regularly and openly with media on issues and shortcomings related to the service, and what Metlink is doing to address them. We have also been putting actions in the context of the network upgrade business cases. We have also been engaging with Wairarapa customers via social media channels. Meetings are planned with some of the leading activist customers to outline our current actions and plans for the line.

## 5.2 Recent focus

### Timetable change in November 2017

Wairarapa off-peak services were timetabled to have shorter journey times than during the peak. While patronage is lower than the peak, off-peak “dwell” times at stations are generally similar to or longer than at peaks because of the loading of bicycles, luggage and prams, etc. This has resulted in poor performance of the Wairarapa off-peak services. A timetable change on 19 November helped address this by increasing scheduled off-peak service journey times.

### Timetable change in July 2018

Another minor timetable change in July is designed to better align with the new bus networks across the Region. For the Wairarapa line, this is designed to deliver a slightly smoother path through the more congested Hutt Valley line.

### Carriage compatibility

Modifications to the compatibility of the two types of carriages used on the Wairarapa line have been completed such that we should no longer have trains that are shorter than planned due to maintenance schedules. It is now possible

to substitute the limited number of SE carriages (6) with an additional SW carriage (18) when an SE car is required for planned maintenance.

#### Additional 32 carparks at Solway

32 additional park and ride carparks were provided on existing railway land at Solway Station. This has removed the practice of parking on the roadside around a hazardous intersection.

#### Business Case preparation and submission

In conjunction with KiwiRail, we have prepared and submitted two Crown Business Cases for consideration in the 2018 Central Government Budget round.

#### **Title: Network Track Infrastructure Catch-up Renewals**

Value: \$96 million

Benefit cost ratio: 2.7

The primary focus is life-expired track infrastructure on the Wairarapa line and other critical track infrastructure on the busiest parts of the wider network, including the treatment of high risk slopes. This case is about catching up on the historic underinvestment in the underlying Crown track asset and providing a genuinely fit for purpose rail network. At the moment the quality of our commuter service from the Wairarapa is seriously compromised by the inadequacy of the track infrastructure.

#### **Title: Unlocking Network Capacity and Improving Resilience**

Value: \$100 million

Benefit cost ratio: 1.8

The focus is upgrading the network to provide sufficient capacity to manage existing and future growth in peak patronage (up 13.6% over last 3 years). This programme delivers network improvements that allow higher frequency peak services and longer peak trains to cater for forecasted peak passenger demand through to 2030. The upgrades ensure commuter rail can maintain a balanced mode share between road and rail during peak periods, and sustain the efficiency and resilience of the wider transportation network.

### **5.3 Longer term development – GWRC Proposed Long Term Plan**

As discussed above, if performance, reliability, journey times and capacity are to be addressed then there will need to be significant investment in terms of:

- Improved rail infrastructure (renewals) with higher line speed and reduced/removed speed restrictions
- New rail infrastructure in terms of double tracking under the “Unlocking Capacity” program which will increase capacity between Upper Hutt and Trentham reducing impact on the Wairarapa
- More reliable new rolling stock such as Electro/Diesel Multiple Units
- Enhanced train signalling
- Enhanced level crossing controls

The first step to delivering on the investments, if and when adequate funding is committed, will be a significant exercise to plan, programme, procure and implement the complex and interdependent works packages. The programme will also need to mesh with regular maintenance and renewals, existing approved major renewals (Hutt and Johnsonville overhead wire system replacement) and most importantly regular passenger services. Minimising the impact on customers from such a programme of work must be paramount.

### Electro/Diesel Multiple Units

The concept at this stage is to replace GWRC's aging Wairarapa fleet and KiwiRail's Capital Connection fleets with modern Electro/Diesel Multiple (E/DMU) units, similar to Auckland and Wellington Electric Multiple Unit trains, but with the ability to run on electricity in the metro area and switch to diesel propulsion outside of the electrified network. These versatile, longer distance trains, operated under GWRC's Metlink brand, would provide enhanced levels of service and capacity on existing routes and invigorate regional development opportunities across the lower north island. As a minimum, the new fleet will allow additional services from Masterton and Palmerston North and provide additional capacity and flexibility on the electrified metro networks. A separate business case for this proposal is being developed by GWRC (again with support from NZTA, Horizons Regional Council and Wairarapa councils) as indicated in the Capital Connection business which was recently presented to the Government.

### Additional peak services

Introducing additional services in either the peak or off-peak before delivering at least some of the above longer term improvements will require compromises and has the potential to introduce greater stress and fragility to the existing services and customers. The GWRC Draft Long Term Plan seeks to address some of these longer term solutions.

## 6. Communication

This report is likely to be widely referenced by stakeholders and media statements will be prepared.

## 7. Consideration of Climate Change

The matters requiring decision in this report have been considered by officers in accordance with the process set out in the GWRC Climate Change Consideration Guide.

### 7.1 Mitigation assessment

*Mitigation assessments are concerned with the effect of the matter on the climate (i.e. the greenhouse gas emissions generated or removed from the atmosphere as a consequence of the matter) and the actions taken to reduce, neutralise or enhance that effect.*

Officers have considered the effect of the matter on the climate. Officers recommend that the matter will have a positive effect on reducing diesel

emissions and improve the overall sustainability of the rolling stock fleet. The E/DMUs will reduce the operation of diesel traction power within the Wellington electrified network.

Officers note that the matter does not affect the Council's interests in the Emissions Trading Scheme (ETS) or the Permanent Forest Sink Initiative (PFSI)

## **7.2 Adaptation assessment**

*Adaptation assessments relate to the impacts of climate change (e.g. sea level rise or an increase in extreme weather events), and the actions taken to address or avoid those impacts.*

Officers have considered the impacts of climate change in relation to the matter. Officers recommend that climate change has no bearing on the matter.

## **8. The decision-making process and significance**

Officers recognise that the matters referenced in this report may have a high degree of importance to affected or interested parties.

The matters requiring decision in this report have been considered by officers against the requirements of Part 6 of the Local Government Act 2002 (the Act). Part 6 sets out the obligations of local authorities in relation to the making of decisions.

### **8.1 Significance of the decision**

Part 6 requires Greater Wellington Regional Council to consider the significance of the decision. The term 'significance' has a statutory definition set out in the Act.

Officers have considered the significance of the matter, taking the Council's significance and engagement policy and decision-making guidelines into account. Officers recommend that the matter be considered to have low significance.

Officers do not consider that a formal record outlining consideration of the decision-making process is required in this instance.

### **8.2 Engagement**

Engagement on the matters contained in this report aligns with the level of significance assessed in accordance with the significance and engagement policy, no engagement on the matters for decision is required.

## **9. Recommendations**

*That the Committee:*

- 1. Receives the report.*
- 2. Notes the content of the report.*

Report prepared by:

Report approved by:

**Angus Gabara**  
Manager, Rail Operations

**Wayne Hastie**  
General Manager, Public  
Transport

**Attachment 1:** Brief description of the scope of investigation to be carried out by SNC-Lavalin Rail & Transit PTY Ltd, New Zealand

## 1. How SNC-Lavalin will conduct the investigation

Further to communications in December 2017 and January 2018, SNC-Lavalin Rail & Transit Pty Limited (SNC-Lavalin) has prepared this Offer of Services for the investigation.

### 1.1 Background

Transdev is contracted by GWRC to operate the Wellington passenger rail network (this is part of Metlink). This includes services linking Wellington and the Wairarapa operated by diesel powered loco-hauled carriages. Transdev have separate agreements with KiwiRail for the provision of a mainline locomotive for each train, and with HR for the maintenance and servicing of the carriage stock.

Following a number of mechanical breakdowns during recent months on the Wairarapa Line, GWRC require an independent investigation to determine the causes of the failures and provide recommendations to improve service reliability. This is the primary objective for the study. The focus is on fleet mechanical faults and failures i.e. to do with carriage or loco, as well as any related operational failures. Network faults are excluded from this investigation unless they can be attributed to causing mechanical failure (significant work has already been completed in this area and a \$100M investment in track upgrades has been proposed to Government).

GWRC have indicated that the investigation report is likely to be made available to the public. Also, the investigation will require working with multiple contracted parties i.e. KiwiRail, Transdev and HR. Sensitivity is required to ensure these parties work collaboratively to identify root causes and options for improving the level of service.

### 1.2 Scope

SNC-Lavalin proposes the following scope:

- 1) GWRC conduct an introductory meeting between stakeholders outlining the objectives, scope and method proposed. The meeting would clearly outline the process, identify the requirements for specific information and site access etc during the investigation, identify any requirements on SNC-Lavalin by stakeholders (e.g. for safety during depot visits), and otherwise address any concerns.
- 2) Individual meetings with parties to target areas for closer investigation. This may include discussion of the items listed below.
- 3) A review of recent (i.e. previous 12 months) fault and failure history logs and information from each party, including any recent operational debriefs. This includes reviewing service delay minutes, fault attribution and analysis that has identified faults that have caused significant delay and impact to passengers. This part of the investigation will also look into the Failure Reporting, Analysis and Corrective Action System (FRACAS) or equivalent system used to identify root causes and prioritise defects to resolve. SNC-L will also look into the framework with which the FRACAS (or equivalent) system operates. Does the

system allow effective cooperation between contracted parties to identify root causes of faults?

- 4) A review of recent work done by all parties to improve the level of service – specifically related to maintenance, servicing and operations. SNC-Lavalin appreciates that significant work has already been carried out to identify options for improvement, however there may be benefit in an independent analysis of what was done to repair defects, what processes govern repairs and whether they identify underlying issues or just the specific failed component.
  
- 5) Investigation activities “in the field”, including:
  - a. Engineering inquiry of rolling stock condition and suitability to meet reliability targets (locos and carriage stock).
  - b. A review of Minimum Vehicle Operating Standards (MVOS) – what are the standards for the rolling stock, are they fit for purpose, and how are they applied?
  - c. Review of maintenance and servicing procedures/regimes and the quality of this work in particular with respect to the identified potential causes of failure. This includes locos and carriage stock separately. Who is in charge of defining the maintenance regimes and ensuring their effectiveness?
  - d. How do engineering changes to address defects get implemented? Does the engineering change process support the timely resolution of defects to aid service delivery?
  - e. Staff training – Do staff have the training and knowledge to manage identification and resolution of rolling stock defects, and effectively manage service delays that have occurred due to mechanical failure (as applicable to the various roles involved)?
  - f. Review of start-up /operating procedures in Masterton prior to the morning peak, and in Wellington prior to the evening peak.
  - g. Observation of onboard operations during running between Wellington and Masterton.
  
- 6) Track condition - are there any aspects of the infrastructure which are likely to significantly contribute to rolling stock defects e.g. is the track condition likely to significantly impact the rolling stock failure rates? SNC-Lavalin would use fault and failure data to form a view on this.
  
- 7) SNC-L will prepare a final report detailing the known failures, areas of high risk and potential causes of failure, and for each a recommendation for reducing the likelihood and/or consequence of failure.

The approach would be to conduct the investigation with a clear objective to identify solutions to improve the service.



**Report** 18.3  
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**Committee** Sustainable Transport Committee  
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## **General Managers' report to the Sustainable Transport Committee meeting on 14 February 2018**

### **1. Purpose**

To inform the Committee of Greater Wellington Regional Council's (GWRC) activities relating to the Committee's areas of responsibility.

This report provides information on key work programmes and linkages between transport projects, programmes and the strategic framework. It is complemented from time to time by other reports, such as quarterly and annual reports.

### **2. Strategic Framework**

#### **2.1 Regional Land Transport Plan (RLTP)**

Material is being prepared for targeted consultation in February/March 2018 on the proposed updates to the RLTP programme.

In December the Minister of Transport signalled the new priorities he expects to be reflected in a revised Government Policy Statement on Land Transport 2018 (GPS). The new draft GPS is likely to be released in March. This is likely to be an interim document, followed by a more fundamental review and updated GPS for the following financial year.

The Minister also confirmed extended deadlines for updated RLTP programmes to be finalised and sent to the NZ Transport Agency for consideration as it develops the National Land Transport Programme 2018-21 (NLTP). RLTPs must now be finalised by 30 June (previously 30 April), and the NLTP will be published on 1 September.

This will allow the RLTP update to consider the new draft GPS. However, local transport programme development as part of the parallel LTP processes will limit the level of change possible in the first financial year of RLTPs.

## 2.2 Park and Ride Strategy

Work continues on analysis and development of key policy ideas, with a view to a draft framework being ready for engagement with stakeholders early this year. Initial thinking, including suggested principles for a strategic approach to park and ride, will be discussed with Councillors at a workshop in February.

## 3. Key initiatives and projects

### 3.1 Let's Get Wellington Moving

The *Let's Get Wellington Moving* (LGWM) programme completed public and stakeholder engagement on four scenarios during November/December 2017. The engagement programme involved events, information sessions and stakeholder meetings. A public awareness campaign promoted the engagement programme using a range of advertising including radio, bus backs, posters and leaflet distribution.

More than 2000 pieces of feedback were received from individuals, interest groups and stakeholders. Analysis of the feedback is underway and a feedback report is expected to be released in February this year.

Further analysis and investigation work continues - looking at issues raised through the feedback and address information gaps – to inform the development of a preferred programme and complete the Programme Business Case stage. This will include investigation of further mass transit options as well as network planning to understand what an optimised mass transit system would look like and how it might integrate with the wider public transport network.

### 3.2 Central Government rail business cases

A business case has been jointly submitted with Horizons to the Crown, to support the ongoing operation of the Capital Connection (requires \$6m over three years), while longer term options are considered in more detail.

A further two business cases have been jointly submitted with KiwiRail to the Crown, in relation to the Wellington Metro Rail Network. The Ministry of Transport have indicated their support for these business cases, but have also indicated that the Crown is under significant funding constraints. The funding decision will be announced part of Budget 2018 in May 2018.

#### 3.2.1 Network Track Infrastructure Catch-up Renewals – \$96M BCR 2.7

The primary focus is life-expired track infrastructure on the Wairarapa Line and other critical track infrastructure on the busiest parts of the wider network, including the treatment of high risk slopes. This case is about catching up on the historic underinvestment in the underlying Crown track asset, and providing a genuinely fit-for-purpose rail network. At the moment, the quality of our commuter service from the Wairarapa is seriously compromised by the inadequacy of the track infrastructure.

- ***What will the programme deliver:*** A reliable and punctual commuter rail service that can competitively and economically sustain the 36,000

daily peak journeys to and from the Wellington CBD (44-50% mode share from Hutt Valley, Kapiti, Porirua into CBD - 2015 RLTP).

- ***Consequences if programme not delivered/delayed:*** A rapid decline in permitted line speeds on greater lengths of the network. Such a phenomenon already has a dramatic impact on the Wairarapa Line, where further deterioration will rapidly lead to that line being unworkable for passenger services, or irrelevant for passenger services, as the journey time will be so disrupted or elongated that the majority of passengers will have switched to using private vehicles on SH2. Partial funding guarantees more disruptive delivery, significant delays and inefficient use of scarce resources through a lack of scale and market attractiveness.

### 3.2.2 Unlocking Network Capacity and Improving Resilience – \$100M BCR 1.8

The focus is upgrading the network to provide sufficient capacity to manage existing and future growth in peak patronage (up 13.6% over last 3 years). This programme delivers network improvements that allow higher frequency peak services and longer peak trains, to cater for forecasted peak passenger demand through to 2030. The upgrades ensure that commuter rail can maintain a balanced mode share between road and rail during peak periods, and sustain the efficiency and resilience of the wider transportation network.

- ***What will the programme deliver:*** A resilient and efficient transportation network to at least 2030, with an increasing role for metro rail in sustainable mobility, workforce productivity, housing affordability and wider economic development.
- ***Consequences if programme not delivered/delayed:*** Peak rail services will become intolerably overloaded within 4-5 years forcing commuters onto already congested State Highways. Attempts to increase service capacity (frequency or train length) without network upgrades will destroy reliability through a lack of timetable recovery ability or substation failure – again forcing disgruntled customers onto congested State Highways.

## 3.3 Bus contracts and transition

### 3.3.1 Bus contract negotiations

Agreement in principle has been reached with NZ Bus for pricing for their five directly appointed units, enabling transition activities, including ordering of new buses, to commence. Final contract details are being negotiated to enable formal contract execution. Execution of the final five contracts with NZ Bus will signal the conclusion of the procurement process for all bus operating contracts under the Public Transport Operating Model (PTOM).

### 3.3.2 Transition activities

Transition activities with Tranzit, Uzabus and Mana are progressing to schedule.

Wellington City Council is considering a resource consent application from Tranzit for the installation of electric bus charging poles and associated equipment at the Island Bay bus terminus in Reef Street.

Good progress is being made on the certification of Tranzit's first single deck electric buses and the manufacture of the electric double decker buses.

### 3.3.3 Fleet

At the Sustainable Transport Committee of 31 October 2017, the Committee requested that the Chief Executive report back on the costs and logistics of monitoring the diesel emissions of the diesel buses in the Wellington fleet. Subsequent clarification resolved that the request related to the in-cabin monitoring of emissions, to determine if older buses used during the transition period presented greater exposure of harmful emissions to passengers and drivers.

The investigation into the costs and logistics of undertaking such monitoring concluded that measuring the differences of in-cabin emissions between different ages and standards of buses is unlikely to be conclusive, due to the influence of external factors on the internal cabin environment, such as outdoor concentrations of pollutants near the roadway and the direct influence of other vehicles being followed. The relative influence of these factors depends on: the bus's ventilation system, whether windows are open or closed, stopping patterns, urban form, traffic patterns and weather. Additionally, determining the effects on bus drivers and passengers of emission levels measured is also unlikely to be conclusive due to the absence of relevant short-term air quality guidelines.

Based on advice from NIWA, a pilot study is advisable to determine if it is possible to discern differences between older and newer buses operating on the network. NIWA estimate the cost of a pilot study to be between \$12,000 and \$27,000, dependent on the number of buses and the duration.

Subject to the results of the pilot study (i.e., how variable on-board air quality is and how well the instruments perform), a full scale study sampling a larger proportion of the bus fleet to answer the specific question of whether bus drivers and passengers are exposed to higher levels of harmful emissions when riding in an "old" bus versus a "new" bus is estimated to be up to \$100,000.

## 3.4 Bus network changes

A number of traffic resolutions for new bus stops and changes to existing bus stops were approved by Wellington City Council's Strategy Committee on Thursday, 7 December 2017. This batch of resolutions included the bus stop locations required for the Miramar hub and the Reef St (Island Bay) terminus.

Officers are preparing for the next batch of bus stop traffic resolutions in readiness for approval at a March meeting of Wellington City Council's

Strategy Committee. It is intended that this batch will include the Hutchison Rd terminus, and the Karori Tunnel and Wellington Hospital bus hubs.

## **4. Metlink Public Transport – operational matters**

### **4.1 Rail operations**

#### **4.1.1 Wairarapa line performance**

A timetable change was undertaken on the Wairarapa Line on 19 November which largely increased off-peak services journey time to reflect typical off peak dwell times at stations because of the loading of bicycles and prams, for example.

While this timetable has shown a level of improvement in punctuality performance on this line, overall performance has been overshadowed by network heat restrictions, some significant locomotive and carriage failures, and carriage air-conditioning systems that are struggling to cope with the sustained very hot weather and the most popular afternoon peak train customer loadings.

A number of initiatives are underway to address the issues:

- An independent inquiry into the rolling stock issues has commenced
- A business case has been submitted to Central Government for significant catch-up renewals on the Wairarapa track infrastructure
- A rail air-conditioning specialist is working on improving the air conditioning performance
- Supplementary buses have been made available for the busiest PM peak train to reduce the heat load
- Out-of-service carriages are being kept cooler all day
- Ice blocks have been distributed on the busiest PM peak train
- Reduced fares are available on this line during February 2018.

More detail is provided in a separate report to Committee.

#### **4.1.2 Park & Ride**

The Pormare 37 car park extension is nearing completion, and is expected to be open early February.

The revised design for the Porirua car park extension is due to be completed in early February 2018, with construction likely to commence in early March. The revised design will apply improved storm water treatment to the existing car park, and install rain gardens as part of the new extension. The intent is to improve the quality of stormwater discharged into Porirua Harbour.

The revised design will mean there will be three different 'best practice' stormwater management solutions within the same car park - providing an opportunity to undertake a case study to review the effectiveness of each

solution. The design is being peer reviewed by water quality experts recommended by GW's Environmental Policy group.

#### 4.1.3 Customer Satisfaction survey

The Rail Customer Satisfaction survey took place at the end of November 2017. There was a significant improvement in all areas, with the average response increasing by 5% since the May survey. This included a 5% improvement for the service reliability category and a strong improvement for passengers receiving information about disruptions.

Although performance on the Wairarapa Line continues to be disappointing, the most recent customer satisfaction results for responses from passengers on the line increased by 10%.

#### 4.1.4 Patronage

Patronage growth remains strong on the Rail network, with a 7.1% increase year-to-date in peak patronage compared to last year. This includes 11.1% growth in patronage on the Johnsonville Line and 5.3% on the Wairarapa Line.

### 4.2 Bus and Ferry operations

#### 4.2.1 Reliability

Reliability has not been adversely affected this period other than during the Tramways Union stop work meetings held at the end of 2017. This period otherwise tends to be a quieter time with the Christmas break and school holidays.

#### 4.2.2 Stop work meeting 25 January 2018

Our planning for the disruption to services as a result of the Tramways Union stop work meeting went according to plan. The service disruption has been reviewed and some improvements have been identified. These will be instigated, should there be another stop work meeting in the future.

#### 4.2.3 Special events planning

A number of significant events occur early in the year and planning is well underway for management of them. This includes Round the Bays, the Newtown Fair and the Petone Fair.

#### 4.2.4 Students' art goes public

In December, Councillor McKinnon helped formally mark the completion of a mural painted by Brooklyn School students inside the bus shelter at the intersection of Ohiro Road at Cleveland Street. The Council supported the school with some art supplies in order to create the mural as part of helping with the beautification of Brooklyn.

The result is a mural that depicts historic change at the intersection. One side is the street 100 year ago, and the other side is what it looks like today, including transport and shops.

#### 4.2.5 Trolley bus overhead decommissioning

Decommissioning work in the CBD which commenced on 3 January 2018 has now been completed. Officers meet with Wellington Cable Car Limited monthly to discuss progress, health and safety, any customer feedback, budget, and other matters.

The programme of work is shown in the table below and on the map included as [Attachment 1](#) to the report.

June 2017 recast dates			Current Dates (overhead network removal only)	
Sections	Start	Finish	Start	Finish
Emergency Track			Oct-17	Nov-17
Victoria St	Nov-17	Nov-17	Nov-17	Nov-17
Cobham Drive	Nov-17	Nov-17	Nov-17	Nov-17
Aro St	Nov-17	Nov-17	Nov-17	Nov-17
CBD	Dec-17	Jan-18		
Island Bay	Feb-18	Mar-18	Dec-17	
Lyall Bay	Apr-18	Apr-18	Dec-17	
Miramar	Apr-18	May-18	Nov-17	Dec-17
Brooklyn	Jun-18	Jun-18		
Newtown Zoo	Jun-18	Jun-18	Dec-17	Dec-17
Newtown Park	Jul-18	Jul-18		
Newtown Main	Jul-18	Aug-17		
Seatoun	Aug-17	Aug-17		
Karori	Sep-18	Oct-18		
Karori Depot	Oct-18	Oct-18		
Willis St south	Oct-18	Oct-18		
Bus Highway 1	Oct-18	Nov-18		
Bus Highway 2	Oct-18	Nov-18	Nov-17	Dec-17
Rongotai	Oct-18	Nov-18		
Bus Barn	Oct-18	Nov-18		

### 4.3 Total Mobility

#### 4.3.1 Parliamentary inquiry

In 2015, the Transport and Industrial Relations Committee initiated an inquiry into the future of New Zealand's mobility to investigate, among other things, how changing transport technology and social and economic trends can increase accessibility and social connectedness.

The final report from the inquiry was published in August 2017 and includes a recommendation that Government review the Total Mobility scheme, its demand, and adequacy of supply, in order to promote a national (gold) standard for local authorities to align to in developing their transport strategies for disabled and aging people.

Government response to the report is due 19 February 2018, at which time any implications for Total Mobility at GWRC will become clear.

## **5. Sustainable Transport**

NZ Transport Agency has sponsored a second year of the national Aotearoa Bike Challenge. The workplace cycle challenge is being promoted in the Wellington Region through collaboration between GWRC and Wellington City Council. A feature of this year's challenge is a Mayoral ride on 13 February.

Preparations for the schools' active travel initiative, Movin' March, are underway with more than 60 schools already registered.

Changes in the availability of parking at Wellington Hospital have prompted the Hospital to work with GWRC on two initiatives to assist staff considering using different modes of travel to work. The multi-modal website, Smart Travel, has been utilised, along with information about changes to the new bus routes and the cycle skills training we offer workplaces.

## **6. Responses to public participation**

### **6.1 5 December 2017**

There was no public participation at this meeting.

## **7. The decision-making process and significance**

No decision is being sought in this report.

### **7.1 Engagement**

Engagement on this matter is not necessary.

## **8. Recommendations**

*That the Committee:*

- 1. Receives the report.*
- 2. Notes the content of the report.*

Report approved by:

Report approved by:

**Wayne Hastie**  
General Manager,  
Public Transport

**Luke Troy**  
General Manager,  
Strategy

**Attachment 1:** Map for trolley bus decommissioning programme

Attachment 1 to Report 18.3

