Regional Transport Committee

Wednesday 7 September 2016
11.00am
Taranaki Regional Council, Stratford

Agenda for the meeting of the Regional Transport Committee to be held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Wednesday 7 September 2016 commencing at : 11.00am

Members	Councillor C S Williamson	(Committee Chairperson)
	Councillor R F H Maxwell	(Committee Deputy Chairperson)
	Councillor H Dodunski	(New Plymouth District Council)
	Mayor N Volzke	(Stratford District Council)
	Mayor R Dunlop	(South Taranaki District Council)
	Ms R Bleakley	(NZ Transport Agency)
Attending	Mr R I'Anson	(NZ Transport Agency)
	Mr C Whittleston	(New Plymouth District Council)
	Mr S Bowden	(Stratford District Council)
	Mr V Lim	(South Taranaki District Council)

Apologies

Notification of Late Items

Item 1	**Confirmation of Minutes - 1 June 2016**
Item 2	**Minutes of the Regional Transport Advisory Group**
Item 3	**First Annual Monitoring Report for the Regional Land Transport Plan 2015-2021**
Item 4	**Requests to vary the Regional Land Transport Plan for Taranaki 2015/16 - 2020/21**
Item 5	**NZ Transport Agency Regional Report**
Item 6	**Implementation of the One Network Roading Classification across the Taranaki region**
Item 7	**Developing the 2018 Government Policy Statement on Land Transport**
Item 8	**Passenger transport operational update for the quarter ending 30 June 2016**
Item 9	**Correspondence and information items**
Item 10	**General Business**

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: Confirmation of Minutes – 1 June 2016

Item: 1

Approved by: M J Nield, Director-Corporate Services

B G Chamberlain, Chief Executive

Document: 1737893

Resolve

That the Regional Transport Committee of the Taranaki Regional Council:

1. takes as read and confirms the minutes and resolutions of the Regional Transport Committee meeting of the Taranaki Regional Council held in Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Wednesday 1 June 2016 at 11.00am
2. notes the recommendations therein were adopted by the Taranaki Regional Council on 28 June 2016.

Matters arising

Appendices

Document #1693213 – Minutes Regional Transport Committee Wednesday 1 June 2016

Minutes of the Regional Transport Committee Meeting of the Taranaki Regional Council, held in the Taranaki Regional Council Chambers, 47 Cloten Road, Stratford on Wednesday 1 June 2016 commencing at 11.00am.

Members	Councillor	C S Williamson	(Committee Chairperson)
	Councillor	R F H Maxwell	(Committee Deputy Chairperson)
	Councillor	H Dodunski	(New Plymouth District Council)
	Mayor	N Volzke	(Stratford District Council)
	Mayor	R Dunlop	(South Taranaki District Council)
	Ms	R Bleakley	(NZ Transport Agency)
Attending	Councillor	M J Cloke	
	Messrs	M J Nield	(Director-Corporate Services)
		C B Clarke	(Transport Services Manager)
		G C Severinsen	Policy & Strategy Manager)
	Mrs	K van Gameren	(Committee Administrator)
	Mrs	F Ritson	(Policy Analyst)
	Mrs	K Watt	(Passenger Transport Officer)
	Messrs	R I'Anson	(NZ Transport Agency)
		N Walker	(NZ Transport Agency)
		V Lim	(South Taranaki District Council)
		B Manning	(South Taranaki District Council)
		C Whittleston	(New Plymouth District Council)
		S Bowden	(Stratford District Council)
	Ms	M Webby	(Roadsafe Taranaki)
	Snr Sgnt	A Whaley	(New Zealand Police)
	Sgnt	G White	(New Zealand Police)

One Member of the Media.

Apologies There were no apologies.

Notification of Late Items There were no late items of general business.

1. Confirmation of Minutes – 9 March 2016

Resolved

THAT the Regional Transport Committee of the Taranaki Regional Council

1. takes as read and confirms the minutes and recommendations and confidential minutes and recommendations of the Regional Transport Committee meeting of the

Taranaki Regional Council, held in the Taranaki Regional Council chambers, 47 Cloten Road, Stratford, on Wednesday 9 March 2016 at 11.00am

2. notes the recommendations therein were adopted by the Taranaki Regional Council on 5 April 2016.

Williamson/Maxwell

Matters arising

Deputation to the Regional Transport Committee – Sarah Ashworth and Esther Kirk

The Committee requested an update on progress towards the proposal to reduce the speed limit at Oakura following the deputation to the Committee on 9 March 2016. Noted to the Committee was the development of a new 200-lot subdivision at Oakura and whether the increase in traffic will impact on the area under scrutiny. The NZ Transport Agency advised the Committee that discussions have been held with the New Plymouth District Council regarding the speed limit proposal and the potential increase in traffic in the area. A safety review of the area is currently being undertaken by the Agency that will be reported back to the Committee at the next meeting.

2. Minutes of the Taranaki Regional Transport Advisory Group

2.1 The unconfirmed minutes of the Taranaki Regional Transport Advisory Group (RTAG) meeting held on Wednesday 11 May 2016 were received and noted.

Recommended

THAT the Taranaki Regional Council

1. receives for information purposes the unconfirmed minutes of the Taranaki Regional Transport Advisory Group meeting held on Wednesday 11 May 2016.

Maxwell/Dunlop

SH43 – sealing

Mayor N Volzke, Stratford District Council, noted the matter of punctures on SH43 being noted and discussed by the Regional Transport Advisory Group and that the NZ Transport Agency would invesgitate this matter with the roading maintenance contractor. Mayor Volzke concurred that due to a decrease in the quality of the unsealed portion of SH43, vehicle punctures were becoming more common. The Agency noted that action would be taken on this matter.

There was wider discussion on the viability and costs of completing the sealing of SH43, estimated at around $9M. The Committee recalled receiving an estimation of costs in 2012 of $1M for the re-sealing and sought clarification on the variances between the two estimates. The Committee noted to the Agency that sealing all of SH43 was a roading project that was important to the regional community to be completed at some stage in the near future.

3. Notes of the State Highway 3 Working Party

3.1 The unconfirmed notes of the State Highway 3 Working Party meeting held on Thursday 14 April 2016 were received and noted.

Recommended

THAT the Taranaki Regional Council

1. receives for information purposes the unconfirmed notes of the State Highway 3 Working Party meeting held on Thursday 14 April 2016.

Dodunski/Bleakley

General – SH3 North

Discussion was held with the NZ Transport Agency regarding concerns on the condition of the road surface on SH3 North which has deteriorated following recent heavy rain making the road hazardous for motorists. The Agency advised the Committee that a new study of the SH3 route (in preparation for the new SH3 North roading projects) is currently being undertaken that will include road surface improvements and maintenance. It was agreed that the Agency will report back to the Committee on this matter via an email update.

Taranaki Regional Transport Committee visit to Waikato 14-15 April 2016

Committee Chairperson, C S Williamson, provided an update to the Committee on the Taranaki Regional Transport Committee visit to the Waikato region 14-15 April which was very informative and well received by participants.

4. Request to vary the Regional Land Transport Plan 2015/16-2020/21

4.1 Mr M J Nield, Director-Corporate Services, spoke to the memorandum seeking approval of a request from the New Zealand Transport Agency for a variation to the *Regional Land Transport Plan for Taranaki 2015/16 – 2020-21* (Taranaki RLTPlan).

4.2 The Government has announced additional accelerated funding for a bypass of Mount Messenger on State Highway 3 (SH3). The new project needs to be included within the Taranaki RLTPlan in order to be progressed. The Transport Agency has therefore lodged a request to vary the current RLTPlan.

4.3 The Committee noted and encouraged the NZ Transport Agency to engage early with affected communities, including Iwi (Ngāti Tama) and landowners re the new Mount Messenger Bypass roading project to avoid any misunderstanding or misrepresentation going forward. The Agency advised the Committee that a stakeholder engagement plan for the project is being developed that will be reported back to the next meeting.

Recommended

THAT the Taranaki Regional Council

1. receives the memorandum, Request to vary the *Regional Land Transport Plan for Taranaki 2015/16-2020/21*
2. agrees to the requested variation to the *Regional Land Transport Plan for Taranaki 2015/16-2020/21,* made by the New Zealand Transport Agency, to add the following project:
   - SH3 Mount Messenger Bypass
3. adopts this variation to the *Regional Land Transport Plan for Taranaki 2015/16-2020/21* and forwards it on to the New Zealand Transport Agency.

Maxwell/Dunlop

5. New Zealand Transport Agency Regional Report

5.1 Ms R Bleakley, New Zealand Transport Agency, spoke to the Regional Report updating Members on Agency news and activities.

5.2 Members of the Committee raised a number of matters with the Agency as follows:

Programme Business Case: Bell Block to Waitara Investigation

The Committee noted that the Agency has recently completed the programme business case with a report outlining recommendations on how the next phases of the business case should proceed being approved by the Agency on 12 May 2016. Members requested copies of the report and these were able to be printed off and distributed at the meeting.

Point of Entry Case: Safe Roads Alliance – New Plymouth to Hawera

Councillor H Dodunski, New Plymouth District Council, requested the investment logic mapping workshop, to be held later in June 2016, include Durham Road and Dudley Road intersections into SH3, citing safety concerns being raised by the local community.

SH3 Vickers to City

Councillor H Dodunski, New Plymouth District Council, advised of concerns regarding the uneven and damaged road surface along the Vickers to City new roading corridor. It was noted that the Agency will email a response back to the Committee through the Chairperson regarding this matter together with the next 12 months maintenance schedule planned for the area. The Committee will be kept informed of details of the official opening once a date has been confirmed.

Maintenance and Operations

Mayor N Volzke, Stratford District Council, relayed concerns on the safety and reliability of SH43 following the June 2015 weather event. A recent Whangamomona residents' meeting with the SDC highlighted community concerns on the number of uncompleted works along the state highway and the likelihood of further slippages that may occur during the forthcoming winter months resulting in road closures.

Mr R I'Anson, NZ Transport Agency, *tabled* a State Highways Central Region Flood Repair Update for Taranaki that included the current status of slips and under-slips along SH43. The Agency provided an assurance that repairs were close to being finalised and that the state highway would continue to be maintained and kept open. It was suggested that an information leaflet be sent to affected road users along the route to keep them updated on road repairs progress.

Mayor Volzke also sought discussion on the condition of the road surface on SH3 at the approaches to the roundabouts in Stratford, in particular the southern roundabout. The road surface has deteriorated further with heavy rain. Recent repairs to the potholes have not been successful. It was agreed that the Agency would report back to the SDC (Mayor Volzke) regarding this matter.

Councillor H Dodunski, New Plymouth District Council, outlined to the Agency a number of areas where road maintenance on state highways in the New Plymouth district may have been overlooked. It was noted to Councillor Dodunski to identify these areas and log a service request call with the Agency's customer management request system which can then be followed up and actioned accordingly.

Councillor H Dodunski further noted ongoing concerns around the safety and efficiency of the Moturoa SH44 area (entry to Port Taranaki), and advised that the area needed to be revisited from all angles. A report back on this from the NZ Transport Agency was requested.

Recommended

THAT the Taranaki Regional Council

1. notes and receives the Regional Report from the New Zealand Transport Agency dated 1 June 2016.

Dunlop/Volzke

6. Regional road safety update

6.1 Ms M Webby, Senior Sgnt A Whaley and Sgnt G White, Taranaki Road Safety Action Planning Group, provided an update/presentation to the Committee on road safety activities in the region.

Recommended

THAT the Taranaki Regional Council

1. notes and receives with thanks the update on road safety activities in the region provided by representatives of the Taranaki Road Safety Action Planning Group.

Dodunski/Dunlop

7. Presentation on the Hawera town centre revitalisation project

7.1 Mr B Manning, South Taranaki District Council, provided the Committee with a briefing on the South Taranaki District Council's project to revitalise the Hawera town centre (*Hawera Town Centre Strategy*).

Recommended

THAT the Taranaki Regional Council

1. receives with thanks and notes the presentation on the South Taranaki District Council's *Hawera Town Centre Strategy*.

Dunlop/Volzke

8. Passenger transport operational update for the quarter ending 31 March 2016

8.1 Mr C B Clarke, Transport Services Manager, spoke to the memorandum providing the Committee with an operational report of the public transport services throughout Taranaki as at 31 March 2016.

Recommended

THAT the Taranaki Regional Council

1. receives and notes the operational report of the public transport services for the quarter ending 31 March 2016.

Volzke/Dodunski

9. General Business

There were no items of general business.

There being no further business the Committee Chairperson, Councillor C S Williamson, declared the Regional Transport Committee meeting closed at 1.15pm.

Confirmed

Committee Chairperson: _____

C S Williamson

Date: **7 September 2016**

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: Minutes of the Regional Transport Advisory Group

Item: 2

Approved by: M J Nield, Director—Corporate Services

B G Chamberlain, Chief Executive

Document: 1731470

Purpose

The purpose of this memorandum is to receive (for information) the unconfirmed minutes of the Taranaki Regional Transport Advisory Group meeting held on Wednesday 17 August 2016.

Recommendation

That the Taranaki Regional Council:

1. receives for information purposes the unconfirmed minutes of the Taranaki Regional Transport Advisory Group meeting held on Wednesday 17 August 2016.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002* and the *Land Transport Management Act 2003*.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 1731194: Minutes of Taranaki Regional Transport Advisory group (RTAG) 17 August 2016

Taranaki Regional Transport Advisory Group Meeting

MINUTES

Date **Wednesday 17 August 2016 at 10.30am.**

Venue **Taranaki Regional Council, 47 Cloten Road, Stratford**

Present

Carl Whittleston (CW)	NPDC
Bruce Chadwick (BC)	NPDC
Steve Bowden (SB)	SDC
Vincent Lim (VL)	STDC
Paul Murphy (PM)	NZTA P&I
Wayne Keightley (WK)	NZTA HNO
Chris Clarke (CC)	TRC
Fiona Ritson (FR)	TRC
Joe Mack (JM)	TRC

Apologies

Cole O'Keefe (CO)	NZTA P&I
Wayne Wallace (WW)	NZTA P&I
Gray Severinsen (GS)	TRC
Karen Watt (KW)	TRC

Item	Agenda subject	Action
1.	**Welcome and apologies** The Group welcomed Bruce Chadwick from NPDC, who will be Carl's Alternate. Apologies were received from Cole O'Keefe, Wayne Wallace, Gray Severinsen and Karen Watt.	
2.	**Confirmation of previous Minutes** The previous minutes of the RTAG meeting on Wednesday 11 May 2016 were accepted as true and correct.	
2(a).	**Matters Arising** • Re: RTAG request that WK attend RTC meetings in future —this will not be the case. Generally only Raewyn Bleakley and Ross I'Anson will attend. • WK advised that the NZTA Taranaki representation on the SH3WP going forward would be Ross I'Anson with Wayne Keightley as the alternate. • SB noted that the requirements imposed on Kingheim as conditions of their OIO consent to purchase land at Whangamomona and Tahora included the construction of walking and mountain biking trails over the Whangamomona land to the value of at least $45k. These trails have been provided primarily on forestry tracks (including horse trails which were not part of the OIO conditions) and SDC are currently working through the range of issues	

<table>
<tr><th>Item</th><th>Agenda subject</th><th>Action</th></tr>
<tr><td></td><td>involved in becoming the controlling authority for these tracks. The Walking Access Commission (WAC) would like the tracks open to the public by 24 December 2016. SDC's view is that this date is unrealistic and it is not SDC's responsibility to ensure Kingheim comply with the terms and conditions of the OIO. SB will provide a further update at the next RTAG meeting.
• WK noted that a new HNO Senior Project Manager, Erdinc Atalay, has recently started at the Palmerston North office.</td><td>SB</td></tr>
<tr><td>2(b).</td><td>Updates on outstanding actions
<table>
<tr><th>Meeting date</th><th>Subject</th><th>Responsibility</th></tr>
<tr><td>18/11/2015</td><td>5. NZTA to advise who will be the Taranaki RTAG rep on the SH3 Awakino Gorge to Mt Messenger improvements project team.
—Wayne Wallace, per email from Project Manager Campbell McKegg circulated by FR on 12/8/2016.</td><td>HNO</td></tr>
</table></td><td></td></tr>
<tr><td>3.</td><td>Debrief on matters raised at 1 June 2016 RTC Meeting
• FR noted letter from Raewyn Bleakley responding to matters raised at RTC that was circulated by email to RTC and RTAG on 11/08/2016.
o CW advised that clarification should note that it is not the seal that is causing tyre damage, but rather the quality of the aggregate on the unsealed section of SH43.
o Re: Moturoa Intersection, CW noted that it is not just about 'place making', but also about the high level of Port traffic (particularly HCVs) going through the area. Securing health of shopping centre and safety of shopping centre is important. No viable alternative route to the port.
• SB thanked NZTA for fixing southern roundabout in Stratford.
Preparation for 7 September 2016 RTC Meeting
• FR outlined the agenda items planned for the next RTC meeting, noting the requests from the Ministry of Transport and Roading Efficiency Groups to give presentations at the meeting.
• No additional items were raised by the Group.</td><td></td></tr>
<tr><td>4.</td><td>Request to vary the RLTP 2015-21
VL spoke to the request memo from STDC to add the 'Intersection of SH3/Rotokare Road' project to the current RLTP. The need for the variation request to improve the intersection as part of the Consent conditions for the regional landfill was outlined. As was the earlier belief that this project could be progressed under Minor Improvements works rather than requiring a separately specified project, as is now known to be the case.</td><td></td></tr>
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Item	Agenda subject	Action
	The Group supported the request for the variation.	
5.	**SH3 North project update** WK spoke briefly to the update memo on 'SH3 Awakino Gorge to Mt Messenger Corridor Improvements' project, which was taken as read. The Group supported the request to add additional project phases to the Plan, now that this information is available.	
6.	**RLTP 2015/16 Annual Monitoring Report** FR provided the Group with an updated copy of the draft Annual Monitoring Report, encompassing feedback received from the Group on the version circulated prior to the meeting. The Group discussed the draft report, suggesting amendments/clarifications needed, with particular attention to the progress towards strategic objectives and expenditure (the 'unders and overs' especially). FR will update the draft and recirculate to the Group for final agreement, prior to it going to the RTC.	FR
7.	**Round Table – update from each organisation**	
	NZTA — HNO (WK) ▪ New Plymouth to Hawera safety investigations. ILM workshop on 29th at Burgess Hill. Email has gone out with briefing notes. ▪ Normanby Overbridge Realignment project progressing well. ▪ Vickers to City — one piece of sealing around Northgate lodge to complete. Mangorei intersection done. No update re pink insert concrete. Northern end Bridal Street pavement rehab waiting to go, and Downers to get it started. Congested section of road so managing best time to do this. CW queried handover matters around who maintains some of the new areas such as the new railing on the heavy load off ramps. Some points to be clarified. ▪ SH43 seal extension — has been undertaken to provide the requested details of the $9M for sealing prior to the next RTC meeting. WK clarifying. ▪ Bell Block to Waitara — now divided into two discrete projects. Traffic modelling work consultants engaged. Carrying on with transport planning team. ▪ SH3 North projects are progressing. Update workshop in Te Kuiti held on 27/7 on the Corridor Improvements project. Future workshops are being scheduled. ▪ SH45 Kaupokonui Bridge — narrowed down to single lane currently, to enable guardrail in interim, while investigations progress. Will be returned to a two-lane bridge in the future, but that may require a new bridge to be built. VL noted the lack of communication with the public regarding the	WK / CW WK

Item	Agenda subject	Action
	change from 2-lanes. ▪ SB queried repair works for bridge near Kopuatama Cemetery on SH43. WK will follow up. ▪ VL noted concerns regarding the quantities of rehabilitation /reseals programmed for SHs under the NOC do not appear sufficient. ▪ FR queried whether the one page flood repair updates had been distributed to the community. WK advised these have been pulled. ▪ WK will do a presentation at a future RTAG meeting on the Bliptrack (Bluetooth) journey monitoring system.	WK WK
	NZTA — P&I (PM) ▪ Nothing to report that will not be sufficiently covered in later items.	
	STDC (VL) ▪ Noted that the request to NZTA to move the town fringe 50km signs south of Hawera had been in limbo for two years now. WK advised that speed management requests are on hold nationally until the Speed Management Review (which involved trials in Waikato) has been released. ▪ Detailed BC on the Nukumaru Station Road Extension project is being finalised. ▪ Pathways for People — Stage 1 (Denby Road pathway) is almost complete. Stages 2 and 3 are in negotiations with landowners, including KiwiRail. ▪ Carryover of $800k for remaining flood damage repair work.	
	SDC (SB) ▪ All repair works from the June 2015 storm are now finished. However, will be putting up another package of repair works of approximately $300k for the 23-24 July 2016 storm. ▪ Future of Broadway improvements are morphing into a larger package for Stratford, including: welcome/entry structures, creating a town square at Prospero Place, linkages through to King Edward Park, potential new verandahs on both sides of Broadways between the roundabouts. Workshop at SDC next week. ▪ Looking at a connection underneath highway, by Colonel Malone's statue by Patea River. Safety issues involved with primary schools on west side of highway and many students residing on the east side. ▪ Request to shift 50km limit further north of Stratford is likewise waiting on guidelines from speed management review. ▪ Conversion to LED Streetlights is progressing, aimed at November 2016 completion, require additional purchase of lights to finish programme. ▪ Inframax has won the Road Maintenance contract which starts on 1 October 2016 (tenders closed end of July with four bids received).	

Item	Agenda subject	Action
	▪ Investigations centred around Whangamomona are progressing, with a good community meeting held 18 August. Lots of interest in tourism in the area, including increased usage of Whangamomona Road, which will have legal/maintenance issues to be worked though. ▪ Around 200 retaining structures around the district are not in RAMM currently. These need to be addressed and will come through in AMP.	
	NPDC (CW) ▪ Around $600k of flood damage works being carried over. ▪ Oakura speed issue — studies finished and awaiting results. ▪ South Road repairs and LED flashing lights still waiting. ▪ 2400 LED lights procured, with rollout being to Inglewood and Urenui initially. ▪ Traffic signals on SH all will go to TOC to be looked after. ▪ Opus contract ended in June — new in-house management of services, still recruiting staff. ▪ HNO and NPDC in continued discussions for possible resolutions to the issue of cars for sale being parked on Coronation Ave. ▪ Review of NPDC/HNO MoU to be progressed. WK will also need to follow up with VL and SB on their MoUs. ▪ Henwood Road pavement ongoing issue with corrugations.	
	TRC — Public Transport (CC) ▪ Bus patronage declining, being down 2% on last financial year currently. Last month down 14%. ▪ Ticketing project on buses still progressing, with RFT likely to be released end of August. ▪ Preparations well underway to implement a new Total Mobility system in the region with electronic ID cards.	
	TRC — Regional Planning (FR) ▪ Focus largely on stock truck effluent strategy review presently. ▪ SH3 Working Party meeting to be held at Mokau on Thursday 8 September. Updates will be received from the Project Managers on the three SH3 north projects. ▪ Some of the workstreams currently underway at TRC were noted, including the interim review of the Regional Policy Statement, and the draft coastal plan (the latter is to be released for targeted consultation in September 2016). ▪ Noted that the NZ Automobile Association recently released '10 of the best drives in New Zealand' with #4 being the Forgotten World Highway.	

Item	Agenda subject	Action
8.	**NLTP 2018-21 development process** Per PM, is underway. WW will send out an email update to the Group in due course.	
9.	**RLTP 2018 Review – embedding of BCA and ONRC in RLTP and AMPs** FR advised that guidance from NZTA on applying the BCA to RLTPs is now available. She needs to work through this guidance and undertake project planning and preliminary work for the 3-year review of the RLTPlan which will need to be completed by the end of 2017/18 (likely April 2018) and include embedding of the Business Case Approach. PM advised that the next ONRC Regional Workshop for RCAs is being held in Palmerston North on 19 September. This will have a more practical than theoretical approach, and be focused on the Customer LOS. The Group noted that the REG Chair announced at the RCA Forum held last week that they will be greatly decreasing the number of Performance Measures required under the Customer LOS, and will also be staging their implementation. Clarification expected at the September workshop. FR raised developing regional wording for the Taranaki AMPs as per discussions at previous ONRC Regional Workshop. Was agreed for FR to draft some common wording, permissive not prescriptive, and circulate to the Group for feedback. TAs to send FR their respective draft AMPs to aid with this. Some TA's are providing feedback on the NZTA's Investment Assessment Framework road maintenance programme criteria by the 19 August submission date. STDC will circulate their draft feedback to the Group for information purposes.	FR VL
10.	**Taranaki RLTP (geospatial) web app development** Demonstration by FR of an in-house web app tool for Transport that is in development through TRC's GIS Team, including showing location of STE disposal sites and exotic forestry. Discussion on how best to delineate/parcel 'roading catchments', use of centre lines for roading networks, and whether posted bridges could be shown. ONRC classifications have been done in RAAM and should be fairly simply transferred to TRC's GIS and into the app. May also be able to acquire from the NZTA's MapHub system.	FR
11.	**Forestry harvesting roading impacts** FR advised that this work is ongoing, particularly around checking data. Will only be able to high level guidance. Discussion held on District Plan rules currently and in future around plantation forestry. Cross-border issues noted – for example, forestry harvested in SDC but	FR

Item	Agenda subject	Action
	moved primarily on NPDC local roads.	
12.	**General business** PM advised RCAs to ensure any rail crossing works needed (signs, hardware, barrier arms, roading safety changes such as widenings and turn bays) are put through in this current NLTP (while FAR 100%) — which would require change to RLTP. Eddie Cook is KiwiRail contact in this regard.	
10.	**Next Meeting —** scheduled for Wednesday 5 October 2016 Meeting closed 1.25pm	

Acronyms commonly used in RTAG meetings

Acronym	Meaning
AC	Activity Class
AMP	Asset or Activity Management Plan
BC	Business Case
DC	District council
GIS	Geographic Information System
HNO	Highways & Network Operations section of NZTA
ILM	Investment Logic Mapping
LOS	Levels of Service
NOC	Network Outcomes Contract
NPDC	New Plymouth District Council
NZTA	New Zealand Transport Agency
ONRC	One Network Roading Classification
P&I	Planning & Investment section of NZTA
POE	Point of Entry (initiation of a business case)
RAMM	Road Assessment and Maintenance Management database
RAPT	Review and Prioritisation Team
RCA	Road Controlling Authority
RLTP	Regional Land Transport Plan
RTAG	Regional Transport Advisory Group
RTC	Regional Transport Committee
SDC	Stratford District Council
SH	State Highway
SIG	Special Interest Group
SPR	Special Purpose Road
STDC	South Taranaki District Council
STE	Stock Truck Effluent
TRC	Taranaki Regional Council
VDAM	Vehicle Dimensions & Mass

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: First Annual Monitoring Report for the Regional Land Transport Plan 2015-2021

Item: 3

Approved by: M J Nield, Director—Corporate Services

B G Chamberlain, Chief Executive

Document: 1731410

Purpose

The purpose of this memorandum is to present Members with the *Regional Land Transport Plan for Taranaki 2015/16–2020/21 – Annual Monitoring Report for 2015/16.*

Executive summary

The Committee is required to monitor the implementation of the Regional Land Transport Plan (the RLTP or the Plan). In order to provide the Committee with an overview of progress on the planned activities and projects, and how these are implementing the strategic objectives of the Plan, a summary report has therefore been compiled from information provided by the approved organisations in the region.

The report covers the 2015/16 financial year, being the first year of the six-year Plan that came into effect on 1 July 2015, and the first year nationally that such Plans exist in this form.

Recommendations

That the Taranaki Regional Council:

1. receives and adopts the *Regional Land Transport Plan for Taranaki 2015/16–2020/21 – Annual Monitoring Report for 2015/16.*

Background

The *Land Transport Management Act 2003* (LTMA), as amended from time to time, is the main statutory framework for land transport planning and funding in New Zealand.

The 2013 amendments to the LTMA made a number of significant changes to regional transport planning and funding. Under these changes, regional land transport strategies and regional land transport programmes were replaced by a new single regional planning

document — the regional land transport plan, which combines elements of both former documents.

The first such plan for the region, the *Regional Land Transport Plan for Taranaki 2015/16–2020/21*, was developed during 2014/15 and approved by Council on the 7 April 2015. It came into effect on 1 July 2015, and can be viewed at www.trc.govt.nz/assets/Documents/Plans-policies/Transport/FinalRLTP15.pdf.

The Plan's role is to provide strategic direction to land transport in the region and set out how the region proposes to invest to achieve its objectives.

The Plan enables Taranaki's approved organisations (the four councils) and the Transport Agency to bid for funding for land transport activities in the Taranaki region from the Government's National Land Transport Fund (NLTF).

Based on the Plan, the Transport Agency then decides which activities it will include in the three-yearly National Land Transport Programme. Once included in the National Programme, an activity can then be funded from the NLTF and subsequently delivered.

Under the LTMA a regional land transport plan is required to include a description of how monitoring will be undertaken to assess implementation of the regional land transport plan and the performance of the activities within in.

Section 7.1 of the Plan therefore states that —

Monitoring of the Plan will include gathering and reviewing information from organisations responsible for the delivery of the Plan's programme activities. Monitoring reports will be produced annually during the period of the Plan and will include the following:

• *A high level narrative report on the implementation of the objectives in the Plan*	Section 3
• *Progress against the programme of activities included in the programme component of the Plan, against certain key criteria where possible.*	Section 4
• *A comparison of the funding requested for the preceding year against the actual funding approved and the actual expenditure for that year.*	Section 5 & Appendix B
• *Details of any plan variations approved during the year.*	Section 2.2
• *An outline of the progress against significant activities identified in Section 5.3.*	Appendix A

References made to the right of each item note the location of this monitoring aspect within the report.

Discussion

This Annual Monitoring Report is the first for the R*egional Land Transport Plan for Taranaki 2015/16–2020/21,* and covers the period from 1 July 2015 to 30 June 2016.

- Overall, each of the Approved Organisations in Taranaki made good progress towards achieving their planned activities during the first year of the Plan. This was in spite of the major storm and flood event in late June 2015 which had significant impacts on the roading network in the region, requiring significant diversion of resources to emergency works throughout 2015/16.

- The other particularly important occurrence in 2015/16, but one that was far more welcome than the storm event immediately preceding the year, was the Government's announcement in January 2016 of additional ARRP funding for SH3. This additional funding is enabling bypasses of two of the key pinch points on this critical transport corridor connecting Taranaki to the north — Mt Messenger and the Awakino Tunnel. This recognition by the Government of the need for improvement works on this route is a reflection of the long years of advocacy by the regional community, and it would not be overstating the case to state that this momentous announcement represents a significant milestone for the future of the region.
- Two formal variations to the Plan were received and approved during the year, both being requests for the addition of new road improvement projects. The need for the first having arisen as a result of flood damage, and the other as a result of the additional accelerated funding received to bypass Mt Messenger.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002* and the *Land Transport Management Act 2003*.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments – separate report

Document 1732573: Regional Land Transport Plan 2015-21 – Annual Monitoring Report for 2015/16

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: Requests to vary the Regional Land Transport Plan for Taranaki 2015/16-2020/21

Item: 4

Approved by: M J Nield, Director – Corporate Services

B G Chamberlain, Chief Executive

Document: 1731693

Purpose

The purpose of this item is to seek Council approval of two requests to vary the *Regional Land Transport Plan for Taranaki 2015/16-2020/21*.

Executive Summary

Two further requests have been received to vary the *Regional Land Transport Plan for Taranaki 2015/16-2020/21* (RLTP or the Plan):

- From South Taranaki District Council to add a new project to enable intersection improvements necessary to facilitate the new regional landfill; and
- From the New Zealand Transport Agency to add phases, costs and timings detail to the SH3 Mt Messenger to Awakino Gorge Corridor Improvements project.

Both these requests have received support from the Regional Transport Advisory Group and are now brought before the Committee for consideration. Neither of these requests are significant enough to require going back out for public consultation.

Recommendations

That the Taranaki Regional Council:

1. receives the memorandum, Requests to vary the *Regional Land Transport Plan for Taranaki 2015/16-2020/21*.
2. agrees to the requested variation to the *Regional Land Transport Plan for Taranaki 2015/16-2020/21,* made by the South Taranaki District Council, to add the following project:
    - Intersection Improvement of SH3/Rotokare Road

3. agrees to the requested update to the *Regional Land Transport Plan for Taranaki 2015/16-2020/21,* made by the New Zealand Transport Agency, to add phases to the following project:
    - SH3 Mt Messenger to Awakino Gorge Corridor Improvements
4. adopts these variations to the *Regional Land Transport Plan for Taranaki 2015/16-2020/21* and forward them on to the New Zealand Transport Agency.

Background

The current RLTP for Taranaki, which covers the six-year period from July 2015 to June 2021, was adopted in April 2015.

Over the duration of the Plan, activities or projects can change, be abandoned or be added. Under section 18D of the *Land Transport Management Act 2003* (LTMA), a regional transport committee may therefore prepare a variation to its RLTP during the six years to which it applies — either at the request of an approved organisation, the Transport Agency, or at its own motion. Any major new capital works that need to be included require a variation to the Plan.

In accordance with the RLTP variation policy, any variation to the RLTP should be considered and supported by the Regional Transport Advisory Group (RTAG) before being forwarded to the Regional Transport Committee for consideration and endorsement, then to the Taranaki Regional Council for final approval — and ultimately to the NZ Transport Agency for inclusion within the National Land Transport Programme.

When variations are 'significant' in terms of the Committee's significance policy (set out in Section 7.4 of the RLTP and attached to this memorandum for the Committee's reference), the Committee must consult on the variation before adopting it. Public consultation to vary the RLTP is not required for any variation that is not significant in terms of the significance policy adopted within the RLTP.

Intersection Improvement of SH3/Rotokare Road

The South Taranaki District Council (STDC) is seeking inclusion of a new project in the current RLTP — to improve the intersection of State Highway 3 (SH3) with Rotokare Road.

This project is needed due to the forthcoming creation of a Regional Landfill adjacent to the area, and the commensurate increase in vehicle movements that will be involved.

The South Taranaki District Council has therefore submitted the attached request to vary the Plan to include the 'Intersection Improvement of SH3 / Rotokare Road'.

SH3 Mt Messenger to Awakino Gorge Corridor Improvements

The New Zealand Transport Agency (the Agency) is seeking to add additional phases of an activity to the current RLTP. While the 'SH3 Mt Messenger to Awakino Gorge Corridor Improvements' project is currently itemised within the Plan, as one of two Accelerated Regional Roading Package projects, it does not detail phases beyond the Programme Business Case. This was because such information was not available at the time of developing the RLTP, with progression to further phases being dependent on the outcome of those initial investigations, and receiving approval from the Minister of Transport.

As the Committee is aware, the outcome of the investigation into this initial SH3 North accelerated project were very favourable for the region. Not only were corridor improvement works of up to $25M approved for the route from National Funds, a further two separate projects (being bypasses of the key constraints of Mt Messenger and the Awakino Tunnel) were approved for accelerated funding (Crown Funds) of up to $105M.

Now that further information is available, it is recommended that the RLTP be updated to reflect the new phases, costs and timings for the Corridor Improvements project. The project is 58km in length and extends across both Waikato and Taranaki Regions. Improvements identified range in complexity and cost along the route with approximately 80% physical works cost forecast within Waikato and 20% within Taranaki.

Further detail is provided in the attached request from the Agency to update the Plan.

Significance of variation request in relation to need for public consultation

Members will recall that when developing the RLTP, the RTC adopted a policy to provide guidance on which subsequent variations to the Plan would be significant enough to require going back out for public consultation. Section 7.4 of the Plan, *'Significance policy in relation to Plan variations'* is attached to this Memorandum for Members' reference.

Neither of these activities are considered to trigger the significance policy in terms of requiring that a new public consultation process is undertaken, most particularly on the following two points:

- These changes do not affect the integrity or affordability of the RLTP; and
- These activities are likely to have the majority support of the Taranaki community.

Support of the Regional Transport Advisory Group

The Regional Transport Advisory Group (RTAG) for Taranaki considered the variation requests at its meeting of 17 August 2016. The RTAG supported these requests being brought to the Committee for consideration.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002* and the *Land Transport Management Act 2003*.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 1700117: STDC request to vary the RLTP 2015 to include intersection improvements SH3 Rotokare Road
Document 1729121: NZTA request to update RLTP 2015 to add additional phases to the SH3 Awakino to Mt Messenger Corridor Improvements project
Document 1603279: Section 7.4 Significance Policy of RLTPlan 2015-21

Request to vary the Regional Land Transport Plan for Taranaki 2015-2021

Purpose:	To enable the Regional Transport Committee of the Taranaki Regional Council to consider a request for a variation to the *Regional Land Transport Plan for Taranaki 2015-21* (RLTP).
Requesting organisation:	South Taranaki District Council
Contact person:	Vincent TC Lim
Variation request:	Add a new project — **Intersection improvement of SH3 / Rotokare Road**

Background to variation request

The South Taranaki District Council (STDC) is seeking inclusion of a new project in the current RLTP — to improve the intersection of State Highway 3 (SH3) with Rotokare Road.

This project is needed due to the forthcoming creation of a Regional Landfill adjacent to the area, and the commensurate increase in vehicle movements that will be involved.

This is a collaborative project with New Plymouth District Council (NPDC) and Stratford District Council (SDC).

Regional Waste Services Management and Regional Landfill

Since 2000, STDC, NPDC and SDC have worked collaboratively on a regional approach to management of solid waste, resulting in a tri-partite Regional Waste Services Management Agreement (the RWSMA) signed in 2008, and their regular participation in a regional solid waste forum, convened at the offices of the TRC (the Taranaki Solid Waste Committee).

Under the RWSMA, the parties currently use a landfill site situated at Colson Road, New Plymouth, which is owned and operated by the NPDC (the Colson Road Landfill). The Colson Road landfill is expected to close in June 2019. The RWSMA records that, upon closing of the Colson Road Landfill, the parties will use a new Regional Landfill on farmland owned by STDC. The landfill site is located on farmland three kilometres south of Eltham, adjacent to SH3 and Rotokare Road *(refer to Appendix A: Location Map)*.

The centralised landfill was consented in 2004 for a term of 30 years. One of the conditions imposed by STDC for granting the consent to build the landfill is the requirement to improve the access to the landfill, as the intersection of SH3 and Rotokare Road is deficient for the truck turning traffic volumes expected. The proposed improvements of the intersection will enable the landfill to safely receive solid waste from the NPDC and SDC, hence operating as a centralised landfill for the region.

The desired outcome of this project is to ensure the safety of the motorists and landfill operators and users when accessing the landfill site.

Details of variation request

The main access to the landfill will be off Rotokare Road. The existing layout of the intersection of Rotokare Road with SH3 is poor and needs to be improved. In particular, the

current T-intersection has sight visibility issues. There is a small hill on the south side of SH3 which limits the sight visibility when exiting from Rotokare Road. Similarly, there is limited sight distance for vehicles travelling north on SH3 to see stopped vehicles that are turning right from SH3 into Rotokare Road.

The proposed landfill development will increase the traffic movements by an estimated 100 Annual Average Daily Traffic (AADT) with 80 Heavy Commercial Vehicles (HCV), hence compound the existing problem with the intersection. The intersection of Rotokare Road and SH3 needs to be upgraded to mitigate the existing issues and future proof the landfill development.

STDC engaged Calibre Consultants to design the improvements required for this intersection to allow for the development of the landfill with the predicted increase in traffic movements. The recommended option is to improve the SH3/Rotokare Road intersection by relocating the intersection to achieve better sight lines, widening SH3 to enable a turning bay, lead in left turn and acceleration lane to be installed *(refer to the brief overview schematic provided in Appendix B)*. The work will also include minor improvements to the intersection of SH3 with Dalziell Road.

The landfill has been programmed to be built from 2017-2019 and hence the three TLAs are jointly requesting funds to enable the intersection to be upgraded in the 2016/17 financial year. This work fits in with the NZTA Work Category of safety improvements.

STDC will be the client/sponsor on behalf of NPDC and SDC. STDC will authorise and make contract payment, then retrospectively invoice NPDC and SDC for their cost share. The ongoing maintenance of the improved intersection will be handed over to NZTA to be maintained as part of NZTA's network maintenance following contract completion.

Location:	SH3 / Rotokare Road intersection, 3km south of Eltham in South Taranaki *(refer to Appendix A: Location Map).*
Scope and duration:	12 weeks for construction programme for the 2016/17 year.
Estimated cost/s:	$950,000. This includes a contingency sum of $80,000 and professional services including land legalisation cost of $140,000.
Funding source/s:	N Funds and L Funds (local share provided jointly by the three district councils).
Links to RLTP Policies: *Refer to Table 5 on page 48 of Plan*	This activity will contribute most significantly to improving safety (Policies S1, S2, S3, S4). To a lesser extent it will also contribute to policies relating to route resilience, economic development and integration (specifically R1, R2, I1 and G2).
Impacts on RLTP:	The proposal does not negatively affect any other projects in the RLTP, nor affect the overall integrity/affordability of the Plan. Rather it will positively support other safety improvements being undertaken or investigated along SH3 between Hawera and New Plymouth.
Relationship to the RLTP's Significance	The proposed change of adding this intersection project to the RLTP does require a variation process to be undertaken. The

policy on variations: *Refer to Section 7.4 on page 59 of Plan*	variation does not trigger the significance policy in terms of requiring that a new public consultation process is undertaken however. The works are a necessary safety improvement to enable the already agreed Regional Landfill project to proceed safely and with minimal transportation impact.

Process for consideration and approval of variation requests

The current RLTP for Taranaki was approved in April 2015 and any significant new capital works that need to be included require a variation to the programme of activities component of the RLTP. A project must be included within the RLTP before it can be approved for funding from the National Land Transport Fund which the NZ Transport Agency (NZTA) distributes through the National Land Transport Programme.

In accordance with the RLTP variation policy, any variation to the RLTP should be considered and supported by the Regional Transport Advisory Group (RTAG) before being forwarded to the Regional Transport Committee (RTC) for consideration and endorsement, then to the Taranaki Regional Council (TRC) for final approval. The NZTA is then notified of the variation to the Plan, per section 18D of the *Land Transport Management Act 2003*.

Timeframes for consideration of variation request

The following outlines the expected timeframes for processing this variation request. The organisation requesting the variation is responsible for outlining the proposal to the RTAG and RTC.

Consideration by RTAG	Wednesday 17 August 2016	*Progression to the following step will only occur if support of the variation request is given by the considering body.*
Consideration by RTC	Wednesday 7 September 2016	
Consideration by TRC	Monday 19 September 2016	
Forward to NZTA	Tuesday 20 September 2016	

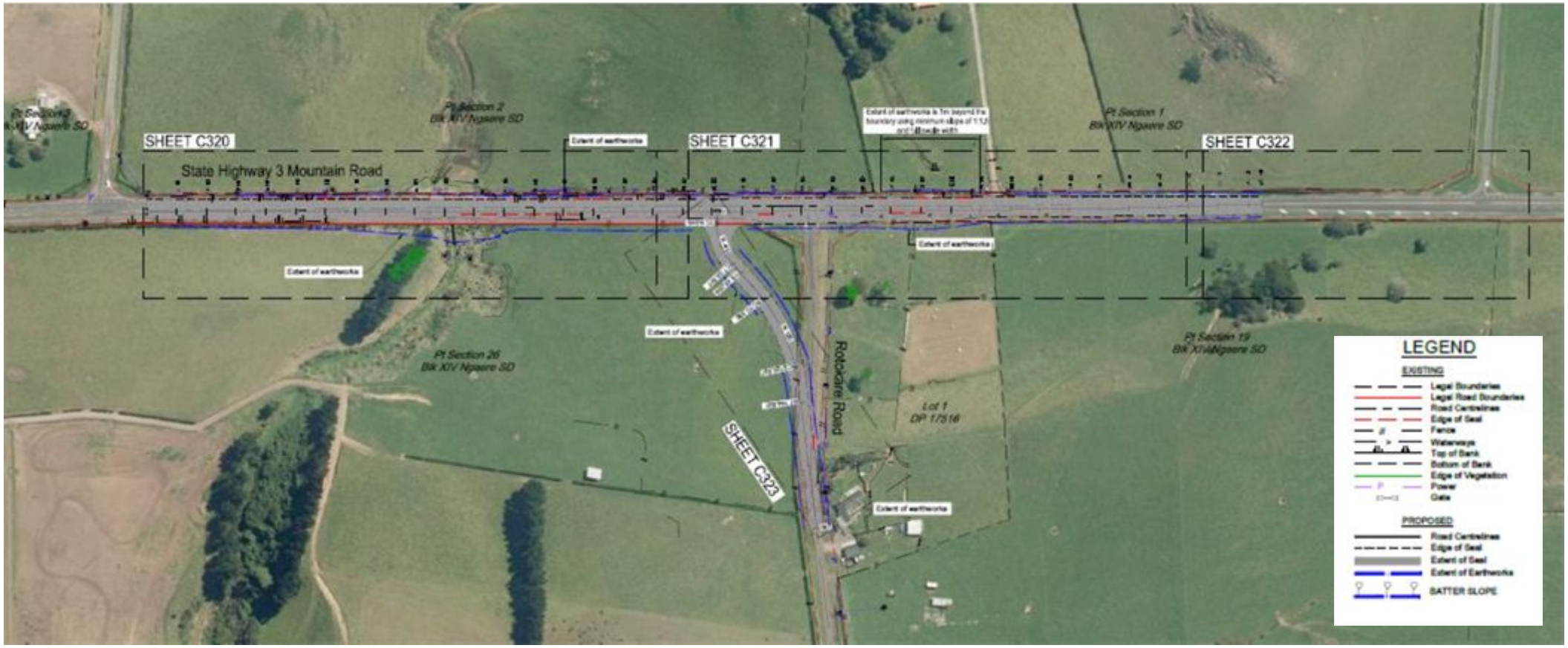
Supporting attachments

Appendix A: Location Map

Appendix B: Overview schematic of improvements


Appendix A: Location map
North to Stratford
ELTHAM
SH3
SH3
Neill Rd
Area of proposed intersection improvements
Rotokare Rd
Site of new regional landfill
Dalziell Rd
SH3

Appendix B: Overview schematic of improvements



Request to add additional phases to the following activity in the Regional Land Transport Plan for Taranaki 2015-2021 (RLTP)

Purpose:	To enable the Regional Transport Committee of the Taranaki Regional Council to consider a "change" to the *Regional Land Transport Plan for Taranaki 2015-21* (RLTP).
Requesting organisation:	New Zealand Transport Agency
Contact person/s:	Campbell McKegg, Safe Roads Alliance Project Manager, Campbell.Mckegg@saferoads.co.nz Rob Napier, NZ Transport Agency Project Manager, Rob.Napier@nzta.govt.nz
Change request:	Changes to phase costs and timing of an activity in the current 2015-21 *Regional Land Transport Plan for Taranaki* — **SH3 Awakino Gorge to Mt Messenger Corridor Improvements**

Background to update request

The New Zealand Transport Agency (the Agency) is seeking to add additional phases of an activity to the current 2015-21 Regional Land Transport Plan for Taranaki. This project is currently itemised within the RLTP for Taranaki however does not detail phases beyond the previously completed Programme Business Case.

The Taranaki RLTP identifies this project within the Accelerated Regional Roading Package, one of two projects identified for the Taranaki region.

The purpose of the update is to more accurately reflect the proposed funding structure including phasing, cost and timing.

The corridor improvements project is 58km in length and extends across both Waikato and Taranaki Regions. Improvements identified through the Programme and Detailed Business Case (PBC & DBC) phases will range in complexity and cost along the route with approximately 80% physical works cost forecast within Waikato and 20% within Taranaki. To best reflect the proportion of physical works the following funding split is proposed across the two regions;

Phase	Funding Region		Total
	Waikato (80%)	Taranaki (20%)	
DBC	$ 688,000	$ 215,000	$ 860,000
Pre Implementation	$ 1,320,000	$ 412,500	$ 1,650,000
Implementation	$ 16,720,000	$ 5,225,000	$ 20,900,000
Property	$ 352,000	$ 110,000	$ 440,000
Total	$ 19,080,000	$ 5,962,500	$ 23,850,000

The proposed Taranaki NLTP funding distribution by year is provided below;

Taranaki RLTP Proposed Funding by Year				
Phase	16/17	17/18	18/19	Total
DBC	$ 215,000	$ -	$ -	$ 215,000
Pre Implementation	$ 206,250	$ 206,250	$ -	$ 412,500
Implementation	$ 1,097,250	$ 1,358,500	$ 2,769,250	$ 5,225,000
Property	$ 30,000	$ 50,000	$ 30,000	$ 110,000
Total	$ 1,548,500	$ 1,614,750	$ 2,799,250	$ 5,962,500

It is recommended the RLTP 2015-21 for Taranaki is updated to reflect the above split, by including the detailed business case and implementation phases as a "minor" variation.

This project is included in the *2015-18 National Land Transport Programme* (NLTP) for both Taranaki and Waikato regions.

Details of variation request

The corridor improvements project is focused around delivering Safety, Resilience and Journey Experience Improvements between Awakino Gorge and Mt Messenger.

Location:	The 58km route extends from 5km north of Awakino Tunnel to the southern end of Mt Messenger.
Scope and duration:	The Project will cover the further investigation, design and construction of a balanced programme of safety, resilience and journey improvements. The Detailed Business Case (DBC) is currently funded within 2016/17 a staged construction approach will commence in 2016/17 also with completion expected in 2018/19.
Estimated cost/s:	The estimated cost of the project at this stage is $20-25million.
Funding source/s:	The project is being funded within the National Land Transport Fund — 100% from N Funds.
Links to RLTP Policies: *Refer to Table 5 on page 48 of Plan*	As outlined in the RLTP, this activity will contribute most significantly to: improving safety (Policies S1, S3, S4); growth and economic development (G1, G2, G3); route resilience (R1, R2); and maximising efficiency (F1).
Impacts on RLTP:	The proposal does not negatively affect any other projects already in the RLTP it is simply distributing the currently identified funding more accurately.
Relationship to the RLTP's Significance policy on variations: *Refer to Section 7.4 on page 59 of Plan*	The proposed update of the current RLTP does not require a new public consultation process as it is considered a "minor" variation.

Process for consideration and approval of variation requests

The current RLTP for Taranaki was approved in April 2015 and any significant new capital works that need to be included require a variation to the programme of activities component of the RLTP. A project must be included within the RLTP before it can be approved for funding from the National Land Transport Fund which the NZ Transport Agency (NZTA) distributes through the National Land Transport Programme.

In accordance with the RLTP variation policy, any variation to the RLTP should be considered and supported by the Regional Transport Advisory Group (RTAG) before being forwarded to the Regional Transport Committee (RTC) for consideration and endorsement, then to the Taranaki Regional Council (TRC) for final approval. The NZTA is then notified of the variation to the Plan, per section 18D of the *Land Transport Management Act 2003*.

Timeframes for consideration of variation request

The following outlines the expected timeframes for processing this variation request. The organisation requesting the variation is responsible for outlining the proposal to the RTAG and RTC.

Consideration by RTAG	Wednesday 17 August 2016	*Progression to the following step will only occur if support of the variation request is given by the considering body.*
Consideration by RTC	Wednesday 7 September 2016	
Consideration by TRC	Monday 19 September 2016	
Forward to NZTA	Tuesday 20 September 2016	

Supporting attachments

None

7.4 Significance policy in relation to Plan variations

Pursuant to section 106(2)(a) of the LTMA, the following procedures set out how the Committee determine the 'significance' of variations to the Plan. In essence, this outlines which variations that need to be made to the Plan are significant enough to require going back out for public consultation.

General determination of significance in relation to Plan variations

The Committee has the final say on what is considered significant in terms of proposed variations to the Plan.

In determining significance, the Committee must ask the following two questions:

1. Does the change require a variation to the Regional Land Transport Plan?
2. Is the variation to the Regional Land Transport Plan significant?

The **significance of variations to the Plan** will be determined on a case-by-case basis. However, when determining the significance of a variation to the Plan, consideration must be given to the extent to which the variation:

- Negatively impacts on the contribution of the Plan towards Connecting New Zealand objectives and/or Government Policy Statement targets.
- Impacts on the appropriate approved organisation's own significance policy.
- Materially changes the balance of strategic investment in a project or activity.
- Changes the scope of the project or activity to the extent that it would significantly alter the original objectives of the project or activity.
- Affects the integrity of the Plan, including its overall affordability.
- Is likely, in the opinion of the Committee, to have the majority support of the Taranaki community.

Consideration must also be given to whether the consultation costs are greater than the benefits.

The following variations to the Plan are considered to be **not significant** for the purposes of consultation:

- Activities that are in the urgent interests of public safety.
- New preventative maintenance and emergency reinstatement activities in accordance with the Transport Agency's Planning & Investment Knowledge Base.
- Addition of an activity or activities that have previously been consulted on in accordance with sections 18 and 18A of the *Land Transport Management Act 2003* and which the Committee considers complies with the provisions for funding approval in accordance with section 20 of that Act.
- A scope change that does not significantly alter the original objectives of the project (to be determined by the Committee).
- Addition of the Investigation Phase of a new activity, one which has not been previously consulted upon in accordance with section 18 of the *Land Transport Management Act 2003*.
- Minor variations to the timing, cash flow or total cost, of any activities.
- Replacement of a project within a group of generic projects by another project of the same type.

Consultation procedure to follow

The decision on whether or not a proposed variation is significant and the resultant variation to the Plan, will be decided by the Committee through reports to the Committee.

Where possible, any consultation required will be carried out with any other consultation undertaken by the Taranaki Regional Council, with the Annual Plan consultation (as an example) in order to minimise consultation costs.

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: NZ Transport Agency Regional Report

Item: 5

Approved by: M J Nield, Director—Corporate Services

B G Chamberlain, Chief Executive

Document: 1735347

Purpose

The purpose of this memorandum is to provide an opportunity for New Zealand Transport Agency representatives to update Members on Agency activities.

Recommendation

That the Taranaki Regional Council:

1. receives and notes the Regional Report from the New Zealand Transport Agency dated 7 September 2016.

Background

Attached to this memorandum is the Regional Report from the NZ Transport Agency to the Taranaki Regional Transport Committee dated 7 September 2016.

Raewyn Bleakley (Regional Director, Central) will speak to this agenda item, supported by other Transport Agency staff as appropriate.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002* and the *Land Transport Management Act 2003*.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 1735245: NZTA Regional Report to RTC – September 2016

Regional Report

Report to:	**Taranaki Regional Transport Committee**
Presenter:	Raewyn Bleakley, Regional Director - Central
Date:	7 September 2016

1. AGENCY NEWS

Driver Licensing Review

Public consultation on the Driver Licensing Review discussion paper closed on Thursday 2 June 2016. The three key areas for improving driver licensing are:

- moving to a digital licensing environment: enabling customers to renew their driver licence online
- supporting commercial sector productivity: streamlining the heavy vehicle driver licensing system
- standardising some regulatory requirements and reducing compliance costs: removing special type vehicle endorsements and simplifying other requirements.

Submissions are being considered and the New Zealand Transport Agency is working with the Ministry of Transport in preparing advice for Ministers.

Safety Campaigns

Drive website
On 15 June 2016, the Transport Agency and ACC launched drive.govt.nz, a free website designed to make it easier for young people to become confident and capable drivers by translating complex information from the road code and presenting it in a simple and clear way, using interactive features and engaging content. The site contains free video driving lessons, insiders' guides to the practical driving tests, and resources for coaches who are helping people learn to drive. This new website replaces practice.co.nz (which was closed down on 30 June 2016).

Safer Journeys Action Plan
In March 2016, Associate Transport Minister Craig Foss released the third Safer Journeys Action Plan to guide road safety direction from 2016-2020. The Action Plan is based on the Safe System principles, and aims to create a safe road system where there are fewer mistakes, and where mistakes do not result in crashes that cause death or serious injury.

While the plan includes road safety activity already planned, there were four new actions:

- Enable smart and safe choices on the road, creating an environment where people have the right information at the right time.
- Make motorcycling safer by providing a safe environment for riders, using education, information, training and emerging technology.
- Ensure roads and roadsides support safer travel by focusing effort on high risk roads – in particular local urban arterials and high risk local roads.
- Encourage safe vehicles by investigating how to increase the use of proven and emerging technologies in vehicles entering the New Zealand fleet.

The Transport Agency will lead the implementation of the roads and roadsides action and contribute to the other actions. The Action Plan can be viewed on our website at: www.saferjourneys.govt.nz/action-plans/2016-2020-action-plan.

Vehicle Dimensions and Mass Rule
A joint Ministry of Transport and Transport Agency review team is examining how the Vehicle Dimensions and Mass 2002 (VDAM) Rule can be revised to make the heavy vehicle transport regime work better for New Zealand.

The Vehicle Dimensions and Mass Rule review aims to deliver benefits that:

- improve road safety and community well-being through encouraging freight and passengers to be carried by safer vehicles
- improve vehicle operator compliance
- optimise the use of New Zealand's roading network.

Submissions on the Yellow Draft Vehicle Dimensions and Mass 2016 Rule closed on Friday 12 August 2016. You can read key information on our website at: nzta.govt.nz/vdam-2016.

2. CENTRAL REGION NEWS

Ministerial Event State Highway 3 Vickers to City

The Vickers to City section of State Highway 3 was officially opened by the Transport Minister Hon Simon Bridges on 23 June 2016.

The 18-month project provided new bridges at Waiwhakaiho and Te Henui, and the road was widened to four lanes along most of the route. Walking and cycling facilities were improved, and the layouts of the intersections were made safer for all road users. In addition, drainage, signage and lighting were upgraded throughout the route.

Official opening of State Highway 3 Vickers to City project
(L-R) MP Jonathan Young, Transport Minister Hon Simon Bridges, Regional Transport Committee Chair Craig Williamson, and Deputy Mayor Heather Dodunski.

We plan to begin a full pavement rehabilitation project for most of the section of State Highway 3 between Vickers Road and the Waiwhakaiho Bridge in November 2016. This work was not part of the original Vickers to City project and will be carried out by our Network Outcomes Contractor.

Key Appointments

Regional Manager Central (Acting), Planning and Investment Group
Julie Alexander has been appointed to the position of Regional Manager Central (Acting), Planning and Investment Group. Julie has come to the Regional Office from the Transport Agency's National Office where she managed the national Public Transport team.

State Highway Manager Palmerston North
Ross I'Anson has been appointed to the role of Highway Manager Palmerston North which includes the Manawatu-Whanganui and Taranaki regions. Ross formally commenced in this role 1 August 2016.

Transport Planning Manager, Central Region
On 15 August 2016, Mike Seabourne commenced in the Transport Planning Manager role (on secondment) from his role as Wellington Traffic Operations Manager. Mike replaces Selwyn Blackmore, who left the Transport Agency on 12 August 2016.

3. DELIVERY OF THE NATIONAL LAND TRANSPORT PROGRAMME

R Funds Balance

There have been no funding approvals using R funds since the June 2016 Regional Transport Committee meeting.

All R funds are now committed to regional projects. All future projects will receive funding from either N funds or, from the Regional Improvements Activity Class.

Business Case Development

Detailed Business Case: Bell Block to Waitara investigation
As the Programme Business Case is now complete, the Transport Agency has initiated the next phase, the Detailed Business Case (DBC). The DBC is split into two distinct packages: the section from the State Highway 3A intersection to Bell Block, and the section from Waitara to the State Highway 3A intersection. The first phase for the section between State Highway 3A and Bell Block will be traffic modelling, the results of which will support the DBC decision making process. The scope of services for the section from Waitara to State Highway 3A is being prepared. Both DBCs will be underway by the end of this year.

Strategic Case: State Highway 3 New Plymouth to Hawera
The Transport Agency commenced the Strategic Case for the State Highway 3 corridor between New Plymouth and Hawera. A series of Investment Logic Mapping (ILM) workshops to consider safety, efficiency and resilience issues commenced late August 2016. The outcome of this work will determine how the Transport Agency will progress development of the business case.

Awakino Gorge to Mount Messenger Corridor
The Transport Agency is completing investigations including examining engineering options and undertaking environmental assessments and geotechnical testing. A key objective is to manage and minimise the cultural, social, land use and other environmental impacts of the project.

We are engaging with local communities, landowners, iwi, councils, road transport organisations and other key stakeholders through drop-in sessions, hui and interactive presentations, to gain input for the projects.

On 6 July 2016, an Investment Logic Mapping workshop was held on the Awakino Tunnel bypass in Hamilton. The workshop produced a long list of options for this section of the corridor, and a short-list is to be determined by end of August 2016.

On 27 July 2016, the Transport Agency hosted an information sharing meeting in Te Kuiti on the Safer Roads Alliance State Highway 3 corridor improvements.

Implementation

State Highway 3 Normanby Bridge Realignment
This project is nearing completion. Connection of the new road to the existing State Highway 3 alignment is underway and have needed to carefully plan both this and the demolition of the original bridge to ensure minimum disruption to traffic movements. The temporary road around the approach to the rail overbridge will ensure this process goes smoothly.

Maintenance and Operations

The 2015/16 Area Wide Pavement Treatment and Resurfacing programme is now complete. This programme involved a total of 2.8km of road reconstruction and 26.2km of road resurfacing. In addition, 106,600 m2 of treatment was applied to those locations identified during inspections as requiring improved skid resistance.

Minor Safety programme 2016/2017

The 2016/17 Minor Safety Programme for Taranaki totals $883,000. The funding is distributed over eight projects as follows:

State Highway 3

- Norfolk School Rural Variable Speed Limit (includes Kakaramea School)
- Cornwall Road Sight Distance improvements
- De Havilland Drive Minor Intersection Improvements
- Motunui North AWT
- Onaero Motor Camp Curve Barrier
- Manutahi to Paeta ATP

State Highway 44

- Moturoa Pedestrian Crossing and Intersection Improvements, noting that the pedestrian safety improvements at the Moturoa shops are now complete.

State Highway 45

- St Mary's Church Pedestrian Facility

In addition, minor works will occur across various state highways to improve stock underpasses.

Reinstatement Works following June 2015 Severe Weather Event

The Transport Agency is continuing to work through the geotechnical issues and design options for each remaining site. The process for determining the appropriate solutions, agreeing the scope of repairs and commencing construction is ahead of schedule. Motorists will see physical works commencing in September 2016.

The repair at Manawapou Hill may not start until November 2016. This is to ensure that ground conditions have improved sufficiently to allow earthmoving.

Raewyn Bleakley
Regional Director – Central
24 August 2016

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: Implementation of the One Network Roading Classification across the Taranaki Region

Item: 6

Approved by: M J Nield, Director—Corporate Services

B G Chamberlain, Chief Executive

Document: 1735023

Purpose

To provide the Committee with a progress report by the Road Efficiency Group on the implementation of the One Network Roading classification across the Taranaki Region.

Recommendations

That the Taranaki Regional Council:

1. receives for information purposes the report *Implementation of the One Network Roading Classification across the Taranaki Region* and associated presentation from the Road Efficiency Group.

Background

The Road Efficiency Group (REG) was formed in 2012 on the recommendation of the Road Maintenance Task Force. It is a collaborative project between local government and the NZ Transport Agency. Its aim is to create and embed a new national funding and activity management structure for roads (the One Network Road Classification); and improve value-for-money, customer focus consistency, collaboration, and quality in road activity management.

Members will recall that at the October 2015 Committee meeting they received a presentation by Chris Olsen of LGNZ EquiP's Road Transportation Unit on the One Network Roading Classification (ONRC).

A REG representative will present on the attached report at the meeting to update Members on progress to implement the ONRC across the Taranaki region.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002* and the *Land Transport Management Act 2003*.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Report to the Taranaki RTC: Implementation of the ONRC across the Taranaki Region

Report to the Taranaki Regional Transport Committee

Date: 24 August 2016

From: The Road Efficiency Group (REG)

Subject: Implementation of the One Network Roading Classification across the Taranaki Region

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Background
At the October 2015 Regional Transport Committee (RTC) meeting, an introduction to the work being delivered by the Road Efficiency Group (REG) was provided, including an overview of what the One Network Roading Classification (ONRC) is and how it was being developed within the Taranaki context.

This report provides an update on how the Taranaki region is tracking with the implementation of ONRC and highlights how the Councils are collectively working through the implementation of the new approach to how levels of service are set based on customer needs and the use of robust data. A NZ Transport Agency representative will provide the RTC with a presentation on the ONRC.

Discussion
There has been an agreed ONRC classification for the Taranaki network since 2015 and this has been embedded into the 2015 Regional Land Transport Plan (RLTP). Also council officers have been delivering on their ONRC transition plans the locally based REG workshops. In the same vein as the recent RTC workshop, there has been a focus on preparing the business case for road maintenance and renewal activities. Taking this approach will increase the ability to 'tell the story' about appropriate levels of investment to manage the respective road networks.

Working towards ONRC
As work at the technical level progresses with 'transitioning' to the new classification and investment framework, it's worth reminding ourselves why we're on this journey. Our transport 'customers', need to be at the centre of our thinking.

In prioritising investment in the transport network it is important that network users are given certainty about the quality of the road network based on a robust method for assessing the quality of our roads, and understanding current and future demand and risk. This is based on their differential level of service by road function. Collaboration between all partners in understanding this work will bring innovation and savings, and lift our asset management skills.

Implementing the Business Case Approach
Looking forward, each Council's Activity Management Plan (AMP) will need to have demonstrated the Business Case principles as a basis for receiving support for its maintenance and operations activities through the 2018-21 National Land Transport Programme. Work is underway with getting AMP's ready, which includes assessing current plans.

Most AMPs have identified strategic network problems but they are not well articulated and have been hidden in the document. Councils have also identified that even if the strategic problems have been identified it is not clear what the benefits, or consequences are for addressing (or not) the problems and also how information in the AMP supports the programme decisions being made.

The outcome of this current work will serve two purposes:

1. To align AMPs using the business case principles and link them strongly to Council outcomes and the ONRC. This work will also help identify gaps in the customer levels of service for each Council network
2. Feed into the RLTP programme 3 year review. One of the challenges will be to ensure there is good alignment between the AMPs and the RLTP programme. Going forward discussing how territorial authorities (TAs) and RC's can work effectively together and ensure improved alignment between strategic problems and the RLTP and Councils AMPs.

Early Outputs from REG

An on-line ONRC performance measure reporting tool has been developed. Based on a number of performance measures and using data submitted by individual councils, the tool will enable roading staff to make comparisons and benchmark between the performance of their own network and other networks.

It is expected that the tool will also allow timely and quality reporting on the performance of the transport network by executive and elected members of council

Embedding the ONRC into NZTA Investment decision making

The Transport Agency has confirmed that it uses the Investment Assessment Framework (IAF) to assess the merits of, and prioritising, activities for funding within the NLTP. The current IAF uses a core set of criteria for all Government Policy Statement (GPS) activity classes, with subtle variances for each activity class. The current maintenance criteria apply equally to both the Local Road and State Highway maintenance activity classes.

The Transport Agency released the draft criteria for embedding the One Network Road Classification (ONRC) and 'level of service' considerations into the investment decision-making systems back in July. To ensure that roading staff can confidently embed the changes required under ONRC, it was important that this information which is the first step in clarifying the requirements for assessing maintenance programmes for funding in the 2018-21 NLTP be made available.

This revised framework will bring a level of change to how investments are assessed, therefore the Transport Agency have invested considerable effort into preparing a draft framework.

Early signals on draft new criteria for maintenance programmes for the 2018 – 21 NLTP

In parallel with the work that REG has been delivering, the Transport Agency has reviewed it's decision making framework to make it more responsive, and reflect the industry desire to make investment decisions based on actual evidence to address problems on the transport network as a whole. The new criteria will emphasise the need for AMPs to:

1. Be built off a solid evidence base with robust options analysis
2. Show a clear link to the ONRC framework
3. Embed the customer levels of service in an appropriate way for the network
4. Demonstrate where the RCA's network performance and cost of delivery sits on a comparative basis to similar networks i.e. benchmarking
5. Demonstrate best practice activity management support that addresses the principles of the Better Business Case approach and good practise asset management.

Next Steps

The groundwork is being laid to embed ONRC into our business. The next 12 months will be a busy time that will require a high degree of co-ordination in order for all RCAs to analyse, plan and report on the ONRC performance measures in a coherent way. It will be important to complete this work in time for the next NLTP as the Transport Agency will expect much stronger evidence and analysis of network needs assessed using the ONRC. It will not be a simple assessment of current costs plus a provision for escalation.

It will also be critical to ensure there is good alignment between the AMPs and the 2018 RLTP. RTC members are encouraged to engage and support the work being undertaken with the revised AMPs.

In closing, the work that REG and the Transport Agency are developing, complemented by the local leadership is setting the region up to be successful. Next up is ensuring that there is alignment with the respective councils Long Term Plan processes in advance of the above mentioned 2018 NLTP development.

In saying this, it is important that roading staff are provided the necessary direction and support as implementing ONRC and the Business Case Approach will provide longer term benefits, but additional upfront work load.

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: Developing the 2018 Government Policy Statement on Land Transport

Item: 7

Approved by: M J Nield, Director—Corporate Services

B G Chamberlain, Chief Executive

Document: 1735662

Purpose

The purpose of this item is to provide an opportunity for the Ministry of Transport to present to the Committee on development of the *2018 Government Policy Statement on Land Transport*.

Recommendations

That the Taranaki Regional Council:

1. receives and notes the presentation from the Ministry of Transport on development of the *2018 Government Policy Statement on Land Transport.*

Background

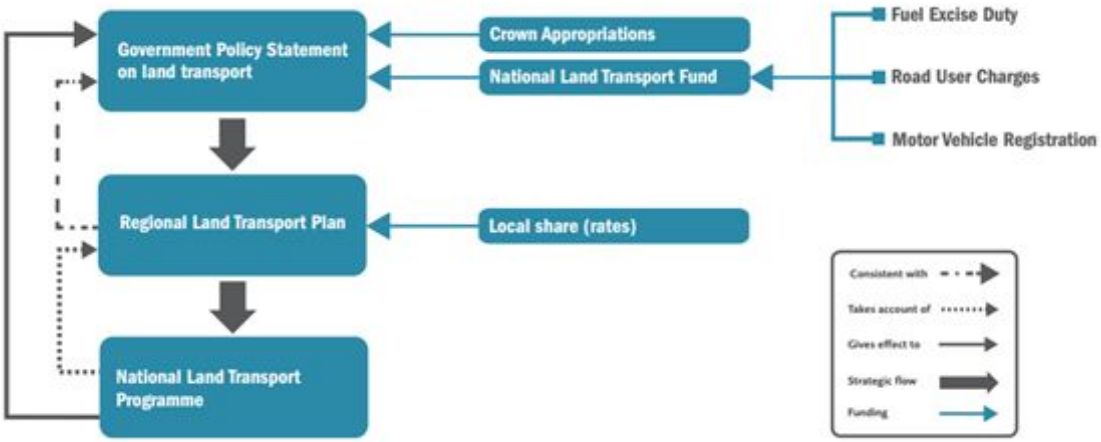
The GPS is a document issued by the Minister of Transport every three years. It is the Government's primary tool to communicate what it wants to achieve in land transport, and how it expects to see funding allocated between types of activity (for example, roading, public transport, road safety) across the land transport system.

The GPS describes:

- what the government wishes to achieve from its investment in land transport through the National Land Transport Fund
- how it will achieve this through particular areas of investment known as activity classes (for example, road policing, State highway improvements)
- how much funding will be provided
- how the funding will be raised.

The GPS does not specify particular projects to be funded, or levels of funding for individual interventions. It also does not have jurisdiction over port, airport, maritime or aviation activities, although it may impact on land transport links to port and airport facilities.

What is the relationship between the GPS, the National Land Transport Programme and Regional Land Transport Plans?



The National Land Transport Programme (NLTP), developed by the NZ Transport Agency, sets out the activities that can receive funding from the National Land Transport Fund under the *Land Transport Management Act 2003*. The NLTP must give effect to the GPS. The Investment Assessment Framework (IAF) is the method by which the Agency gives effect to the GPS by detailing the criteria against which it will make investment decisions.

Regional Land Transport Plans developed by local government must be consistent with the GPS. The NLTP takes account of the Regional Land Transport Plans, but overall, must give effect to the GPS. The figure above shows the linkages between land transport documents.

Further information is available on the Ministry of Transport's website at http://www.transport.govt.nz/ourwork/keystrategiesandplans/gpsonlandtransportfunding/

Development of GPS 2018

The GPS is ordinarily released in advance of it taking effect, so that it can inform development of the National Land Transport Programme and Regional Land Transport Plans. In the case of GPS 2015 it was released on 18 December 2014, and came into force on 1 July 2015.

The Ministry of Transport is currently in the process of planning GPS 2018 and are talking with Regional Transport Committees around the country as part of this process. They have requested an hour of the Committee's time to give and receive information on the GPS. Representatives of the Ministry will therefore be presenting at the meeting, in what they have termed a 'GPS Listening Session'

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

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Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: Passenger transport operational update for the quarter ending 30 June 2016

Item: 8

Approved by: M J Nield, Director—Corporate Services

B G Chamberlain, Chief Executive

Document: 1736386

Purpose

The purpose of this memorandum is to provide members with an operational report of the public transport services as at 30 June 2016.

Recommendations

That the Taranaki Regional Council:

1. receives and notes the operational report of the public transport services for the quarter ending 30 June 2016.

Background

The Council is responsible for promoting an integrated, safe, responsive and sustainable land transport system within the region. This involves a range of activities, including provision of public transport services and the Total Mobility Scheme.

Citylink (New Plymouth, Bell Block, Waitara and Oakura) bus service

Patronage for the quarter was 160,466, an increase of 3.4% above the 155,222 recorded in the same period in 2014/2015. This was a turnaround from the three previous quarters of decline, with patronage increases in April and May. Compared to 2014/2015 patronage gains were recorded in Seniors/SuperGold 8%, Tertiary 18%, WITT 15% and Child 3%. Patronage was down in the Adult (2%), Beneficiary (12%) and Access (5%) categories.

Figure 1 shows the total monthly patronage recorded during the fourth quarter for the two previous financial years and 2015/2016.

Figure 1: Citylink patronage comparison 4th quarter of 2013/2014, 2014/2015 and 2015/2016

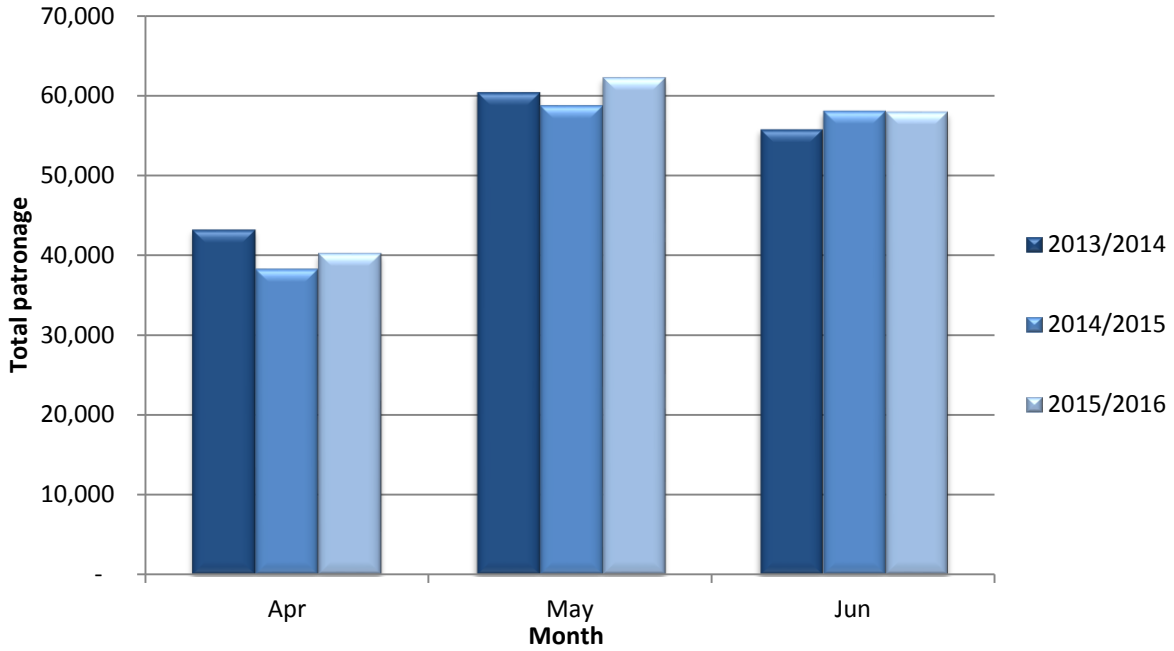


Table 1 shows the year to date trips per capita. The result shows that there has been a small decrease in the total number of trips per capita reflecting the drop in actual patronage.

Table 1: Citylink trips per capita 2015/2016

Period	Passenger trips	Trips per capita YTD
2015/2016	570,616	10.1
2014/2015	582,357	10.8

Trips per capita based on a population of 57,459 (2013 census) for areas serviced by Citylink.

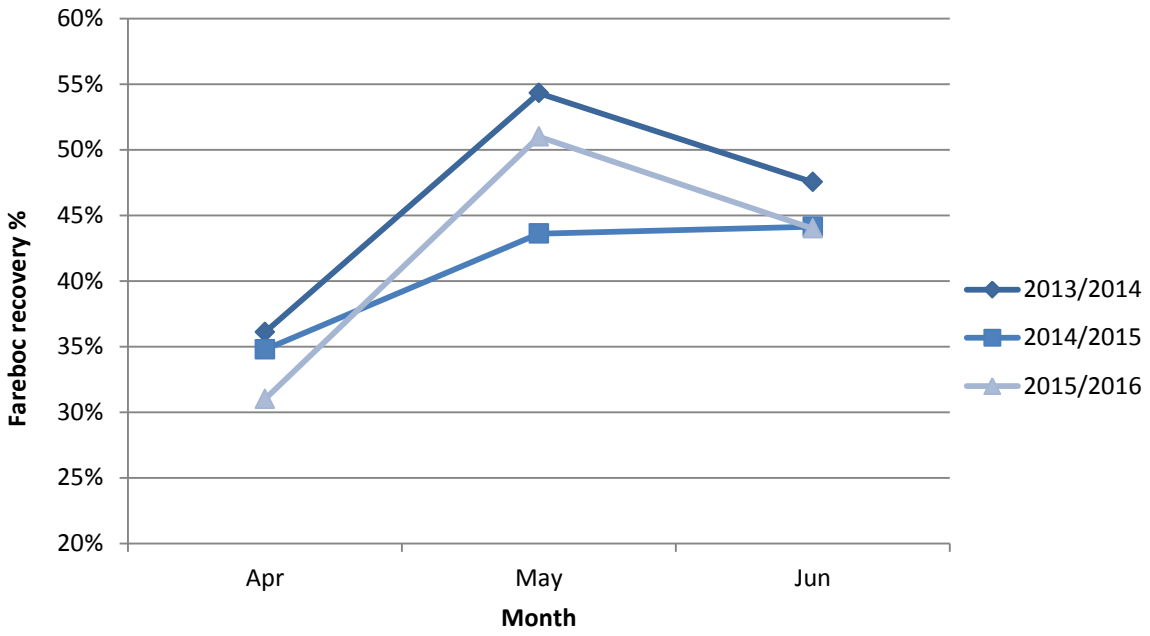
Analysis of the decline in patronage between the fourth quarter of 2015/2016 and 2014/2015 has found the following:

- patronage increased from Bell Block 14.9%, New Plymouth 3.8% and Oakura 3.9%
- patronage from Waitara was down (7.2%)
- peak patronage was up 6.0%, off-peak down (4.7%).

Farebox recovery for the quarter was 42% compared to 40.5% achieved in the same quarter 2014/2015.

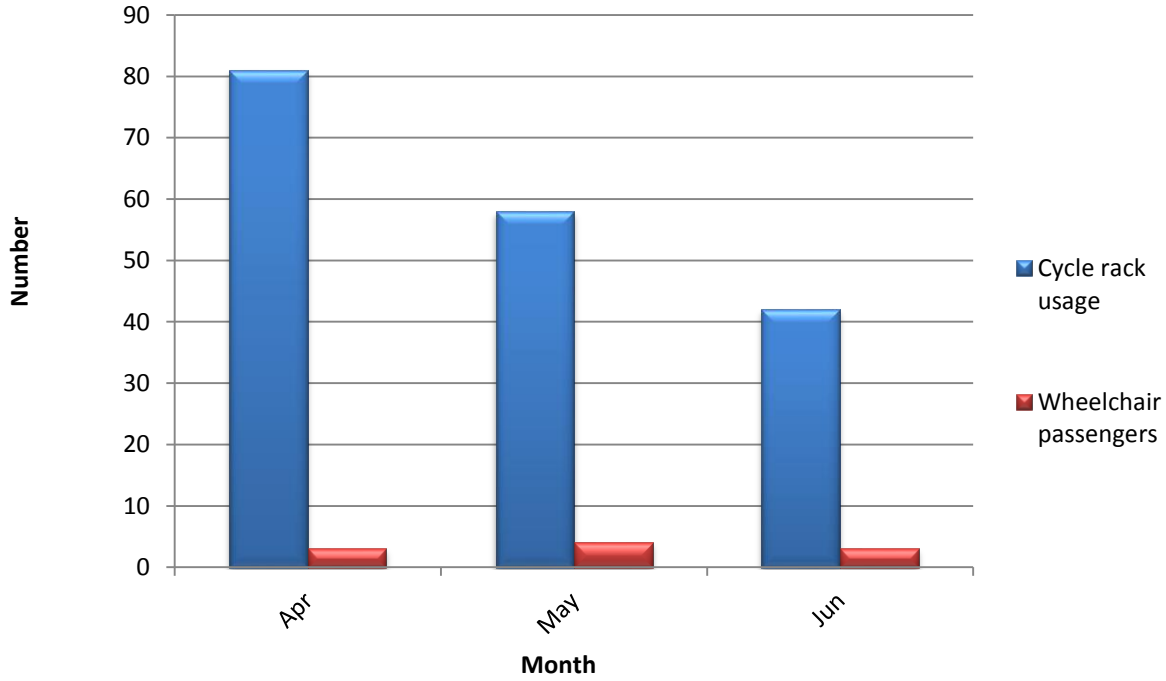
Figure 2 shows the fourth quarter farebox recovery by month between 2013/2014, 2014/2015 and 2015/2016.

Figure 2: Citylink farebox recovery 4th quarter 2013/2014, 2014/2015 and 2015/2016



Bike rack usage continued to increase in the fourth quarter, with 206 users recorded compared to 181 in 2014/2015. Wheelchair patronage was 17 compared to 16 in the same quarter 2014/2015. Monthly usage for both is shown in Figure 3.

Figure 3: Citylink 2015/2016 cycle rack usage and wheelchair passengers



SouthLink services

For ease of reporting the SouthLink service's patronage data is shown in Table 2.

Table 2: SouthLink patronage and financial performance 2015/2016

Service	Passenger trips	Fare box recovery rate
Waverley-Patea-Hawera	1,515	48.9%
Opunake-Hawera (including Manaia–Hawera)	1,027	14.4%
Opunake-New Plymouth	1,038	19.5%

Patronage on the three SouthLink services continues to decline. The performance of each service is detailed below.

Waverley-Patea-Hawera patronage was down (14%) compared to last year. Compared to last year SuperGold Card was up 14%, fare-paying Child and Under 5s were down 49% and 85% respectively. Farebox recovery was 48.9%.

Patronage for the Opunake-Hawera (including Manaia-Hawera) service was up 0.8% compared to 2014/2015. Compared to last year, Adult patronage was down 43%, SuperGold Card up 4%, fare-paying Child were up 50% and Under 5 up 98%. Farebox recovery was up slightly to 14.4%.

Patronage for the Opunake-New Plymouth service was down (11%) compared to 2014/2015. Compared to last year fare paying Child patronage was up 12%, Adult down (28%), SuperGold Card down (6%). Farebox recovery was 19.5%.

Connector (Hawera to New Plymouth) bus service

Total patronage for the fourth quarter of 2015/2016 was 9,863, an average of 156 per day. This is up 39% on the 7,121 recorded in 2014/2015. The patronage increase is across a number of fare categories, Access 63%, Community Service Card holders 35%, SuperGold 2,613%, WITT 33% and Child 23%. Senior patronage is down (75%) continuing the change for the second quarter to travelling under the SuperGold Card Scheme.

Table 3: Connector patronage YTD 2015/2016

Service	Passenger trips	Average passengers / day
Hawera to New Plymouth	9,863	156

Figure 4 shows the monthly breakdown of patronage trips.

Figure 4: Connector patronage comparison 4th quarter 2014/2015 and 2015/2016

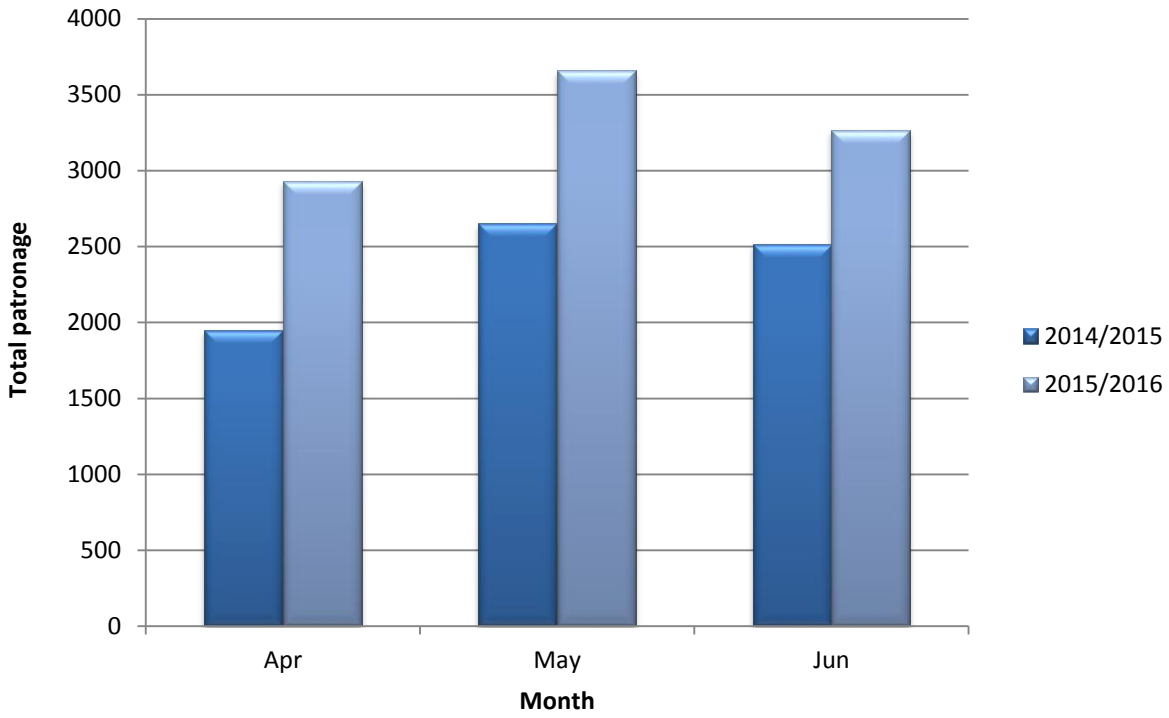


Table 4 shows the percentage of Connector patronage by fare category.

Table 4: Percentage of Connector patronage 2015/2016

Fare category	Patronage %
ACCESS	0.8%
Adult	9.7%
Beneficiary	10.4%
Child	2.1%
Seniors	2.0%
SuperGold Card	4.5%
TDHB	14.4%
Tertiary	6.9%
WITT	37.7%
Training*	11%
Promotion	0%
Total	**100%**

*Training – school students undertaking vocational training at WITT or other training providers.

SuperGold Card Scheme

Table 4 shows the number of trips taken throughout the region by patrons using their SuperGold Card and the percentage of these trips compared to all trips made in the current year.

Table 4: SuperGold Card patronage by service as at 30 June 2016

Service	Passenger trips	% of all trips
New Plymouth, Oakura, Bell Block and Waitara	51,570	9.0%
Waverley-Patea-Hawera	828	54.7%
Opunake-Hawera (incl. Manaia-Hawera)	570	55.5%
Opunake-New Plymouth	525	50.6%
Hawera-New Plymouth	1,425	4.5%
Total	**54,918**	**9.0%**

The 54,918 SuperGold Card trips equates to 9.0% of all public transport trips, across all services. This compares with 41,105 trips in 2014/2015, an increase of 9.0%.

The eligibility of the Connector service for SuperGold Card, along the whole route, has seen a massive increase in use. The percentage of SGC trips on the Connector again increased from 3.7% of all trips in the last quarter to 4.5% as shown in Table 5.

Total Mobility Scheme

Total Mobility client trips totalled 40,124 down (3.4%) from the 41,556 trips in 2014/2015. Client numbers were 1,718, down from 1,769 in 2014/15. Table 5 shows total trip and client numbers for the year.

Table 5: Total Mobility trips and clients 2015/2016

Service	Passenger trips	Clients
Total Mobility Scheme	40,124	1,718

Ironside Vehicle Society Incorporated

Table 6 shows the total number of passenger trips 2015/2016 carried out by Ironside, including the number of wheelchair trips.

Table 6: Ironside trips 2015/2016

Service	Trips involving wheelchairs	Total trips claimed
Ironside Vehicle Society	6,644	4,726

Of the 6,644 trips provided, 4,726 or 71% involved wheelchair users. All of these figures were down on the recorded figures in 2014/15, total trips 7,383 with trips involving wheelchair users 5,503.

Assessment of NZ urban public transport patronage trends

As noted in previous Memoranda a report into declining bus patronage across many urban bus services in regional New Zealand had been commissioned. The final report has been released.

An abbreviated summary of the report follows:

The project was undertaken by Ian Wallis Associates (IWA). The report assessed the trend in bus patronage in 19 NZ urban systems in the 2015 calendar year (relative to 2014) and for comparison the two previous years, 2014 and 2013. Total annual patronage in the 19 systems was some 110 million. While aggregate statistics for Auckland were provided the assessment did not cover Auckland in the same detail as the other systems. The main assessments therefore relate to bus services in 18 NZ systems.

As well as data for the Auckland bus system, data collection and analysis were carried out in less detail for the following urban areas/modes:

- Auckland - train and ferry
- Wellington - train and ferry
- Perth - bus and train
- Adelaide - bus.

The modelling for the 2015 changes indicated the following contributions of each patronage 'driver' to the 3.1% 'modelled' reduction in boardings/population:

- Petrol prices 1.5% reduction
- Car ownership 0.8% reduction
- Service km 0.7% reduction
- Fares 0.1% reduction
- **Total (modelled)** **3.2% reduction**.

This shows that the car travel factors (petrol prices and car ownership) were estimated to account for about three-quarters of the total 2015 national boardings/population reduction of 3.1%.

However, the 2015 changes in the key 'drivers', with significant petrol price reductions and strong car ownership increases both having adverse effects on public transport patronage, would indicate that the patronage reductions in 2015 were exceptional.

The report is attached for Member's information.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the *Act*.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002* and the *Land Transport Management Act 2003.*

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 1718661: Patronage Trends Report May 2016 (N226 1586)

NZ Regional Councils

Assessment of NZ Urban Public Transport Patronage Trends

(Final)

4 May 2016

N226/Rep/1586

Ian Wallis Associates Ltd

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Contents

Summary Report

1. Introduction

This is the report of a project to review recent bus patronage trends throughout New Zealand and (for comparative purposes) selected Australian cities, to analyse the reasons for declining patronage in the NZ systems over the last 12-18 months, and to identify strategies that might be adopted by regional councils to minimise further decline in bus patronage. This summary report provides an overview of the project's scope, methodology and findings: more detailed information is provided in the appendices following.

The project was undertaken by Ian Wallis Associates (IWA) for Environment Canterbury and Otago Regional Council on behalf of a wider group of regional councils.

This report assesses the trends in bus patronage in 19 NZ urban systems in calendar year 2015 (relative to 2014) and for comparison also in the two previous years (2014 and 2013). The total annual patronage in these 19 systems was some 110 million. While aggregate statistics for Auckland have been provided, our assessment has not covered Auckland in the same detail as the other systems[1]. The main assessments presented therefore relate to bus services in 18 NZ systems.

As well as data for the Auckland bus system, data collection and analysis were carried out in less detail for the following urban areas/modes:

- Auckland - train and ferry
- Wellington - train and ferry
- Perth - bus and train[2]
- Adelaide - bus.[3]

2. Overview of patronage trends and causal factors

In calendar year 2015 (relative to 2014), total bus boardings ('patronage') in the 18 systems fell by 1.5%. This followed total boardings increases in the previous two years of 1.7% in 2013 and 1.8% in 2014. After allowing for changes in population, the corresponding figures are a reduction in total boardings/population in 2015 of 3.2%, compared with increases of 1.0% in 2013 and 0.4% in 2014.

Table 1 (at the end of this Summary Report) sets out, for each urban area/mode:

- Total population in the service area (2015)
- Total number of passenger boardings (2015)
- Annual changes in total boardings and boardings/population for calendar years 2013, 2014 and 2015 (relative to the preceding year).

Based on wider evidence for NZ and internationally, our expectation in the short/medium term was that the factors likely to have most affect on patronage (boardings) per population fall into two categories, ie:

- Public transport travel factors, principally **fare levels** and **service levels**
- Car travel factors, principally **petrol prices** and levels of **car ownership[4].**

[1] The primary reason for not assessing Auckland's bus patronage trends in detail was that the Auckland services have not been experiencing patronage decline over the last 18 months, and are therefore not directly relevant to the studies focus on the extent and causes of declining patronage. Other reasons relate to incomplete data for the Auckland bus system, and the difficulties associated with the change in ticketing arrangements over this period.

[2] The Perth ferry service, which accounts for c. 0.5% pf total Perth PT patronage, was excluded.

[3] Initial data collection and analyses for Adelaide's train and tram services found that their patronage trends had been 'irregular' over the last 2-3 years, as a result of service disruptions in connection with major infrastructure upgrading and route extensions in this period. These services were therefore not covered.

[4] Levels of car ownership in turn are strongly influenced by the state of the NZ economy.

Our estimates of the changes in these key patronage 'drivers' in 2015 and the two earlier years, for the NZ urban areas in aggregate, are:

- ***Fare levels***. In real terms, the weighted average change in fares (per boarding) in 2015 was close to zero (+0.4%), following increases of 2.3% in 2013 and 1.6% in 2014.
- ***Service levels.*** In 2015, total service km operated fell by 1.5%, following a fall of 2.7% in 2013 and a rise of 1.0% in 2014.
- ***Petrol prices***. In 2015, real petrol prices fell quite sharply, by 9.8% in real terms, following marginal falls in 2013 (0.7%) and 2014 (1.9%).
- ***Car ownership***. The NZ average cars per person increased by 1.6% in 2015, following a 0.7% increase in 2013 and a 1.6% increase in 2014.

3. Assessment of causes of recent patronage changes

We formulated an elasticity-based model to estimate the proportional change in bus boardings (per population) as a function of the above four patronage 'drivers', with the model coefficients being estimated demand elasticities based on evidence from many previous studies in NZ, Australia and internationally.

Application of this model to the 2014-15 changes in the 'drivers' produced a modelled estimate of a 3.2% reduction in boardings/population in 2015 -- which was identical to the observed reduction of 3.2%. In this respect, the model was judged as successful, in providing good estimates of the contribution of the various 'drivers' to the 2015 patronage reduction (and noting that the 2015 situation was the main focus of the study). However, the model was considerably less successful in replicating the 2013 and 2014 changes in boardings/population.

The modelling for the 2015 changes indicated the following contributions of each patronage 'driver' to the 3.1% 'modelled' reduction in boardings/population:

- Petrol prices 1.5% reduction
- Car ownership 0.8% reduction
- Service km 0.7% reduction
- Fares 0.1% reduction
- **Total** (modelled) **3.2% reduction.**

This shows that the car travel factors (petrol prices and car ownership) were estimated to account for about three-quarters of the total 2015 boardings/population reduction of 3.1%. However, we note that the 2015 changes in the key 'drivers', with significant petrol price reductions and strong car ownership increases both having adverse effects on public transport patronage, would indicate that the patronage reductions in 2015 were exceptional.

4. Future patronage prospects

In future years, we would expect that the above four factors would continue to be the key drivers of bus patronage. However, it would seem likely that real petrol prices would (on average) generally increase rather than decrease (i.e. resulting in net increases in bus patronage), and that any car ownership growth would be lower than in 2014 and 2015 (so minimising any loss in patronage). Thus, changes in fares and service levels (including enhanced network design) are likely to play a greater role in 'driving' patronage changes in future years, with the extent and direction of any changes largely being within the influence of regional councils. In addition, service area population changes are likely to significantly affect relative patronage trends in the different regions.

Table 1: Summary of patronage statistics - change in total boardings and total boardings per capita

Mode (a)	System (b)	Service area population (2015)	Total boardings (2015)	Change in total boardings (d)			Change in total boardings per capita (d)		
				2013	2014	2015	2013	2014	2015
Bus	Wellington	493,240	24,182,254	-1.6%	1.8%	0.7%	-1.9%	0.8%	-0.5%
	Christchurch	434,265	13,716,610	8.7%	2.5%	-3.1%	7.6%	0.4%	-5.3%
	Hamilton	245,080	4,171,873	-1.8%	1.7%	-4.4%	-3.3%	-0.2%	-6.5%
	Napier/Hastings	128,935	712,953	8.7%	-0.4%	-9.3%	8.1%	-1.2%	-9.9%
	Tauranga	125,360	1,864,548	2.3%	1.2%	-0.8%	1.0%	-0.4%	-3.2%
	Dunedin	120,730	2,162,132	-1.4%	-0.5%	0.0%	-1.4%	-1.4%	-3.8%
	Palmerston North	101,450	488,247	-1.5%	-3.5%	-6.1%	-1.8%	-4.6%	-7.4%
	New Plymouth	65,530	571,779	2.5%	4.0%	-2.4%	1.2%	2.4%	-3.3%
	Nelson	61,915	412,481	-	8.9%	0.6%	-	7.6%	-0.5%
	Rotorua	56,825	883,904	-1.0%	4.4%	-12.6%	-0.9%	3.5%	-13.5%
	Whangarei	55,355	311,583	5.4%	0.6%	-2.0%	4.3%	-0.8%	-3.8%
	Invercargill	50,255	227,945	-	-1.7%	-12.5%	-	-2.8%	-13.2%
	Whanganui	39,385	155,141	2.8%	1.2%	-4.9%	3.0%	1.7%	-5.3%
	Gisborne	35,665	146,511	-7.7%	-3.8%	3.4%	-8.8%	-4.1%	2.5%
	Blenheim	30,635	26,264	4.7%	4.4%	-2.9%	4.0%	3.8%	-4.1%
	Timaru	28,545	211,329	1.8%	1.3%	-3.4%	1.0%	-0.1%	-3.9%
	Taupo	23,700	24,912	-3.3%	-7.0%	17.9%	-3.4%	-8.6%	16.5%
	Wakatipu Basin	20,195	485,449	3.5%	-3.6%	-9.3%	-0.7%	-6.3%	-13.9%
	Average (unweighted)			**1.4%**	**0.6%**	**-3.0%**	**0.5%**	**-0.6%**	**-4.4%**
	Average (weighted by boardings)			**1.7%**	**1.8%**	**-1.5%**	**1.0%**	**0.4%**	**-3.2%**
	Auckland	1,462,765	60,477,100	-0.5%	7.8%	4.1%	-1.6%	5.3%	1.2%
	Perth	2,062,298	67,811,486	-0.1%	-1.4%	-1.0%	-3.6%	-3.7%	-2.9%
	Adelaide (c)	1,316,288	36,820,358	-	-	-0.8%	-	-	-1.7%
Train	Auckland	1,462,765	15,379,700	5.5%	18.0%	22.9%	4.3%	15.3%	19.5%
	Wellington	493,240	12,270,709	1.9%	5.2%	2.4%	1.6%	4.2%	1.2%
	Perth	2,062,298	63,524,648	-0.4%	-0.6%	-0.3%	-3.8%	-2.9%	-2.2%
Ferry	Auckland	1,462,765	5,720,300	7.3%	0.0%	10.7%	6.1%	-2.2%	7.6%
	Wellington	493,240	180,213	0.6%	-0.3%	-1.7%	0.3%	-1.3%	-2.8%

Notes:

(a) Bus mode includes busway boardings. Train and light rail boardings for Adelaide and ferry services for Perth are excluded.

(b) Only limited data was available for Tauranga, Rotorua and Auckland systems. Some very small systems have been excluded (e.g. Kaitaia, Whakatane/rural and Palmerston North satellite).

(c) Due to data issues in Adelaide the 2014 data covers the 9-month period ending Feb-15 and the 2015 data covers the same period ending Feb-16.

(d) Total boardings and total boardings per capita excludes boardings on free CBD services in Adelaide and Perth.

Appendix A Purpose, objectives and scope

A.1. Background

The rationale for commissioning the project was the marked decline in public transport (principally bus) patronage in most NZ systems (apart from Auckland) over the past 12-18 months (ie since late 2014). Prior to the project, it was estimated that the average patronage decline across regions was 4%-5% over this period, which occurred following a period when annual patronage trends had been relatively stable over most regions.

In the light of this situation, the regional council Special Interest Group (SIG) resolved to investigate the extent of the patronage losses across the regions and to consider the contributing factors influencing these losses. At its meeting on 15 February 2016, the SIG sub-group determined that an independent consultant would be contracted to carry out this investigation.

A.2. Project purpose and objectives

This project **purpose** was to review recent bus patronage trends throughout New Zealand and selected Australian cities, to analyse findings to determine the reasons for declining patronage and to identify what strategies might be used by regional councils to prevent further decline in bus patronage.

The project **objectives** were specified as:

- To collate patronage data from each region in New Zealand and selected cities in Australia
- To investigate and provide reasons for the recent decline in bus patronage
- To provide potential options/solutions to arrest this decline

Further details on the project objectives and key tasks are provided in Table A.1.

Table A.1 Project objectives

Objectives	Task	Comments
Objective 1 – Review available data	**Gather additional information**	**Gather additional information in order to build further layers of information:** • Undertake further research (e.g. regional council interviews as necessary) to get a better understanding of any unique conditions in specific regions. • Undertake further research to get a better understanding of all potential causes of the national decline. • Consider each regions fare pricing and commerciality ratio **Some possible considerations:** • Fuel price decline • Road User Charge decline • Decline in car registration costs • Increase in car ownership nationally and in each region
	Chart data and provide commentary	Provide graphic representation of patronage decline and written commentary as to environment and underlying causes. This should include: • Relationship between underlying causes and patronage impact • Comparison of trends between regions and cities within Australasia • List of underlying causes in order of magnitude • Analysis of any regions or cities where growth continues to occur and reasons why • Summary of findings
Objective 2 – Identify options/ solutions	**Identify options / solutions**	Provide potential options /solutions which may help to arrest the decline in patronage. This could include: • Lobbying government to consider impact of higher car ownership when next reducing registration costs. • How can we work smarter do things differently? Will PTOM make any difference, would marketing initiatives make a difference (if so in what form and to what extent) etc.

Source: Final project scope document (ECan, 26 Feb 2016).

A.3. Project scope

The project scope and key tasks were, in summary, as follows:

- As the patronage decline is affecting the majority of NZ regions, there is a need to understand the extent of the issue and the underlying causes prior to embarking on further work and in some cases prior to reporting to councillors/stakeholders.
- The work is primarily to focus on bus patronage, but if data is readily available for other modes then this should be included.
- Patronage data from each region for the past 18 months will be provided by the client, and the consultant is to source the equivalent data from Perth and Adelaide.
- If the consultant sees value in covering data prior to the last 18 months, then they may do so subject to such data being readily available from the regions.
- Ideally the patronage data collected would cover all NZ regions with bus networks; however, if this proves too onerous then the two smallest regions (West Coast and Marlborough) may be omitted.

The project output was specified as a detailed report that addresses each of the above objectives. The report may be read by a wide audience with varied backgrounds, and is therefore to be written and presented in a way that it is easily understood by its intended audience.

Appendix B Key patronage drivers and impacts by mode and system

B.1. Patronage levels

B.1.1. Summary of changes

The change in patronage (total boardings) for each system and the change in boardings per capita are summarised in Table B.1. The table also includes columns with total service area population and total boardings. The average (unweighted and weighted by boardings) changes in boardings and boardings/capita for the 18 NZ bus systems (excluding Auckland) are also shown[5]. The lower part of the table provides data for the other modes/systems reviewed.

The analysis has focused on boardings per capita figures for the 18 NZ bus systems (i.e. excluding Auckland), and specifically on the proportionate changes in boardings/capita on a calendar year basis since 2012, i.e. the changes 2012-2013, 2013-2014 and 2014-2015. Changes between calendar years, rather than financial years, have been used so as to take advantage of the more recent data available, up to the end of December 2015.

Table B.1 Change in total boardings and total boardings per capita

Mode (a)	System (b)	Service area population (2015)	Total boardings (2015)	Change in total boardings (d)			Change in total boardings per capita (d)		
				2013	2014	2015	2013	2014	2015
Bus	Wellington	493,240	24,182,254	-1.6%	1.8%	0.7%	-1.9%	0.8%	-0.5%
	Christchurch	434,265	13,716,610	8.7%	2.5%	-3.1%	7.6%	0.4%	-5.3%
	Hamilton	245,080	4,171,873	-1.8%	1.7%	-4.4%	-3.3%	-0.2%	-6.5%
	Napier/Hastings	128,935	712,953	8.7%	-0.4%	-9.3%	8.1%	-1.2%	-9.9%
	Tauranga	125,360	1,864,548	2.3%	1.2%	-0.8%	1.0%	-0.4%	-3.2%
	Dunedin	120,730	2,162,132	-1.4%	-0.5%	0.0%	-1.4%	-1.4%	-3.8%
	Palmerston North	101,450	488,247	-1.5%	-3.5%	-6.1%	-1.8%	-4.6%	-7.4%
	New Plymouth	65,530	571,779	2.5%	4.0%	-2.4%	1.2%	2.4%	-3.3%
	Nelson	61,915	412,481	-	8.9%	0.6%	-	7.6%	-0.5%
	Rotorua	56,825	883,904	-1.0%	4.4%	-12.6%	-0.9%	3.5%	-13.5%
	Whangarei	55,355	311,583	5.4%	0.6%	-2.0%	4.3%	-0.8%	-3.8%
	Invercargill	50,255	227,945	-	-1.7%	-12.5%	-	-2.8%	-13.2%
	Whanganui	39,385	155,141	2.8%	1.2%	-4.9%	3.0%	1.7%	-5.3%
	Gisborne	35,665	146,511	-7.7%	-3.8%	3.4%	-8.8%	-4.1%	2.5%
	Blenheim	30,635	26,264	4.7%	4.4%	-2.9%	4.0%	3.8%	-4.1%
	Timaru	28,545	211,329	1.8%	1.3%	-3.4%	1.0%	-0.1%	-3.9%
	Taupo	23,700	24,912	-3.3%	-7.0%	17.9%	-3.4%	-8.6%	16.5%
	Wakatipu Basin	20,195	485,449	3.5%	-3.6%	-9.3%	-0.7%	-6.3%	-13.9%
	Average (unweighted)			**1.4%**	**0.6%**	**-3.0%**	**0.5%**	**-0.6%**	**-4.4%**
	Average (weighted by boardings)			**1.7%**	**1.8%**	**-1.5%**	**1.0%**	**0.4%**	**-3.2%**
	Auckland	1,462,765	60,477,100	-0.5%	7.8%	4.1%	-1.6%	5.3%	1.2%
	Perth	2,062,298	67,811,486	-0.1%	-1.4%	-1.0%	-3.6%	-3.7%	-2.9%
	Adelaide (c)	1,316,288	36,820,358	-	-	-0.8%	-	-	-1.7%
Train	Auckland	1,462,765	15,379,700	5.5%	18.0%	22.9%	4.3%	15.3%	19.5%
	Wellington	493,240	12,270,709	1.9%	5.2%	2.4%	1.6%	4.2%	1.2%
	Perth	2,062,298	63,524,648	-0.4%	-0.6%	-0.3%	-3.8%	-2.9%	-2.2%
Ferry	Auckland	1,462,765	5,720,300	7.3%	0.0%	10.7%	6.1%	-2.2%	7.6%
	Wellington	493,240	180,213	0.6%	-0.3%	-1.7%	0.3%	-1.3%	-2.8%

[5] As the weighted average is a better measure of the overall market changes, it has been used as the primary measure in the analyses and commentary throughout this report, with the unweighted average used as a secondary measure on some occasions.

Notes:

(e) Bus mode includes busway boardings. Train and light rail boardings for Adelaide and ferry services for Perth are excluded.
(f) Only limited data was available for Tauranga, Rotorua and Auckland systems. Some very small systems have been excluded (e.g. Kaitaia, Whakatane/rural and Palmerston North satellite).
(g) Due to data issues in Adelaide the 2014 data covers the 9-month period ending Feb-15 and the 2015 data covers the same period ending Feb-16.
(h) Total boardings and total boardings per capita excludes boardings on free CBD services in Adelaide and Perth.

We note the following in regards to the patronage trends on the 18 NZ bus systems (excluding Auckland):

- In 2015, total boardings in the 18 systems combined declined by 1.5% (weighted average), with declines in 13 systems and increases in only four systems[6]. The 1.5% overall decline in 2015 may be compared with overall increases in total boardings in 2013 (1.7%) and 2014 (1.8%).
- After allowing for population changes, the total boardings/capita in 2015 declined by 3.2% (weighted average), with declines in 16 systems and increases in only two systems. This overall 3.2% boardings/capita decline in 2015 may be compared with increases in 2013 (1.0%) and in 2014 (0.4%).
- These results are consistent with widespread views that the patronage trends in many of the NZ systems have deteriorated in the last 1 - 2 years: the year-on-year changes in overall boardings/capita were 0.6% worse in 2014 than 2013, and around 3.6% worse in 2015 than 2014.

Auckland bus system trends were examined separately from the other systems, due to the very different trends that have occurred in Auckland and given its dominance in the overall NZ bus market. We note the following in regards to bus trends in Auckland:

- Auckland's total bus patronage fell marginally (0.5%) in 2013, but has since grown strongly, increasing by 7.8% in 2014 and 4.1% in 2015. On a per capita basis, the corresponding figures were a 1.6% decline in 2013, followed by increases of 5.3% in 2014 and 1.2% in 2015. In both 2014 and 2015, the Auckland boardings/capita changes were some 4% to 5% above the (weighted) average changes for the other 18 systems in each of those years.
- Multiple factors have influenced Auckland's bus patronage trends over the assessment period, including the influence of the Northern Busway services (which have shown very strong growth), various area service restructures and service level improvements, and the introduction of fares (with changes in the counting of passengers) on the Link services. As noted earlier, a detailed assessment of the various factors influencing Auckland's bus patronage has not been attempted for this study, given that its primary focus is on the causes of patronage losses in the systems adversely affected in recent years.

Two Australian bus systems were also separately analysed:

- For **Perth**, total bus boardings declined by between 0.1% and 1.4% in the three assessment years. On a per capita basis, the rates of decline varied between 2.9% (2015) and 3.7% (2014) annually over the three years. This rate of decline follows an extended period in which boardings/capita grew more-or-less steadily, coinciding with a strong period of growth in the WA economy.
- For **Adelaide**, total bus boardings declined by 0.8% in 2015, resulting in boardings/capita declining by 1.7%.[7]

[6] There was no change in one centre, and no data available for a further centre.

[7] The 2015 figures compare the period June 2015-February 2016 with the corresponding period 12 months earlier. No comparisons for earlier periods have been provided as extensive works on the train and tram systems distorted the usual balance of patronage between the three modes.

In addition, non-bus modes were separately analysed. We note the following:

- For **Auckland**, the other PT modes (train and ferry) have shown strong growth in total boardings and in boardings/capita over the period. Growth in boardings/capita for the train services has been 4%, 15% and 20% over the last three years, and for the ferries 6%, -2% and 8%.
- For **Wellington**, the train services have shown moderate growth in total boardings and in boardings/capita (some 7% total per capita over the three years). These results reflect the effects of new rolling stock and improved service reliability, following several years of relatively poor performance with old rolling stock and frequent service disruptions due to infrastructure upgrading work in progress.
- For **Perth**, the trends in boardings/capita on the train services over the three-year period have been very similar to the (negative) trends on the Perth bus services (refer above), with an average per capita decline of some 3% pa (ie virtually identical to the 2015 average rate of decline in the 18 NZ systems).
- For **Adelaide**, no attempt has been made to analyse patronage trends for the train and tram services, given the extensive disruptions to services that have occurred in connection with major infrastructure upgrading and route extensions over the last 3 to 4-year period.

B.1.2. Free senior patronage (i.e. Supergold card)

The change in free senior patronage (i.e. Supergold card) was analysed and compared to other patronage trends, as shown in Table B.2. This splits the overall changes (by system) in boardings/capita between 'standard' and free senior market segments. We note the following:

- In 2015, the trends in SuperGold (seniors, age 65+) boardings/capita for NZ bus services were less negative than for other ('standard') bus users: the weighted average change in SuperGold boardings/capita was 0%, while the 'standard' passenger change was -3.2%. However, for 2013 and 2014 the SuperGold trends were more adverse than for the 'standard' passengers[8].

[8] Note that these boardings/capita figures have allowed for the changing population mix, which involved generally significant growth in the number of people aged 65+ and lower (if any) growth in the 'standard' age category.

Table B.2 Change in standard and free senior (Supergold) boardings per capita

Mode (a)	System (b)	Service area population (2015)	Total boardings (2015)	Change in standard boardings per capita (c)			Change in free senior boardings per capita (d)			Change in total boardings per capita (e)		
				2013	2014	2015	2013	2014	2015	2013	2014	2015
Bus	Wellington	493,240	24,182,254	-1.7%	1.0%	-0.7%	-3.0%	0.4%	3.1%	-1.9%	0.8%	-0.5%
	Christchurch	434,265	13,716,610	8.4%	0.6%	-5.7%	2.0%	-1.0%	-2.0%	7.6%	0.4%	-5.3%
	Hamilton	245,080	4,171,873	-3.7%	-0.1%	-6.4%	2.0%	-0.5%	-6.3%	-3.3%	-0.2%	-6.5%
	Napier/Hastings	128,935	712,953	7.5%	0.2%	-10.3%	11.6%	-8.0%	-7.3%	8.1%	-1.2%	-9.9%
	Tauranga	125,360	1,864,548	-	-	-	-	-	-	1.0%	-0.4%	-3.2%
	Dunedin	120,730	2,162,132	-1.8%	-1.3%	-4.3%	0.5%	-1.9%	-1.2%	-1.4%	-1.4%	-3.8%
	Palmerston North	101,450	488,247	-1.7%	-4.1%	-8.1%	-1.6%	-7.9%	-1.2%	-1.8%	-4.6%	-7.4%
	New Plymouth	65,530	571,779	1.2%	2.4%	-3.2%	4.0%	5.1%	-1.4%	1.2%	2.4%	-3.3%
	Nelson	61,915	412,481	-	8.0%	-0.6%	-	6.5%	0.1%	-	7.6%	-0.5%
	Rotorua	56,825	883,904	-	-	-	-	-	-	-0.9%	3.5%	-13.5%
	Whangarei	55,355	311,583	5.3%	-0.5%	-4.7%	0.0%	-2.2%	-0.1%	4.3%	-0.8%	-3.8%
	Invercargill	50,255	227,945	-	-2.9%	-15.3%	-	-0.8%	7.7%	-	-2.8%	-13.2%
	Whanganui	39,385	155,141	2.9%	0.6%	-4.0%	3.2%	4.8%	-9.9%	3.0%	1.7%	-5.3%
	Gisborne	35,665	146,511	-8.0%	-1.7%	2.4%	-14.0%	-23.5%	4.8%	-8.8%	-4.1%	2.5%
	Blenheim	30,635	26,264	7.1%	5.9%	0.9%	-1.1%	0.7%	-9.3%	4.0%	3.8%	-4.1%
	Timaru	28,545	211,329	1.2%	-1.1%	-4.5%	0.9%	5.7%	-1.3%	1.0%	-0.1%	-3.9%
	Taupo	23,700	24,912	-0.9%	-4.6%	21.7%	-12.6%	-23.7%	-7.2%	-3.4%	-8.6%	16.5%
	Wakatipu Basin	20,195	485,449	0.1%	-6.3%	-14.1%	-15.4%	-1.0%	-3.6%	-0.7%	-6.3%	-13.9%
	Average (unweighted)			**1.1%**	**-0.2%**	**-3.6%**	**-1.7%**	**-3.0%**	**-2.2%**	**0.5%**	**-0.6%**	**-4.4%**
	Average (weighted by boardings)			**1.3%**	**0.6%**	**-3.2%**	**-0.2%**	**-0.5%**	**0.0%**	**1.0%**	**0.4%**	**-3.2%**
	Auckland	1,462,765	60,477,100	-	-	-	-	-	-	-1.6%	5.3%	1.2%
	Perth	2,062,298	67,811,486	-3.7%	-3.5%	-2.8%	0.5%	-5.7%	-2.4%	-3.6%	-3.7%	-2.9%
	Adelaide (f)	1,316,288	36,820,358	-	-	-1.1%	-	-	-4.2%	-	-	-1.7%
Train	Auckland	1,462,765	15,379,700	-	-	-	-	-	-	4.3%	15.3%	19.5%
	Wellington	493,240	12,270,709	1.7%	4.5%	1.3%	7.4%	4.3%	5.8%	1.6%	4.2%	1.2%
	Perth	2,062,298	63,524,648	-3.9%	-2.8%	-2.2%	1.3%	-1.0%	3.7%	-3.8%	-2.9%	-2.2%
Ferry	Auckland	1,462,765	5,720,300	-	-	-	-	-	-	6.1%	-2.2%	7.6%
	Wellington	493,240	180,213	0.3%	-0.4%	-3.3%	4.2%	-9.6%	6.9%	0.3%	-1.3%	-2.8%

Notes:

(i) Bus mode includes busway boardings. Train and light rail boardings for Adelaide and ferry services for Perth are excluded.

(j) Only limited data was available for Tauranga, Rotorua and Auckland systems. Some very small systems have been excluded (e.g. Kaitaia, Whakatane/rural and Palmerston North satellite).

(k) Standard boardings per capita is calculated as total boardings (excluding free senior travel and free CBD services in Adelaide and Perth) divided by total service area population aged 0-64 years.

(l) Free senior boardings per capita are calculated as total free senior boardings divided by total service area population aged 65 years and over. For Adelaide this also includes paid senior boardings which could not be separated.

(m) Total boardings per capita excludes boardings on free CBD services in Adelaide and Perth.

(n) Due to data issues in Adelaide the 2014 data covers the 9-month period ending Feb-15 and the 2015 data covers the same period ending Feb-16.

B.2. Fare levels

B.2.1. Summary of changes

The change in real fares for each system and the resulting 'modelled' change in boardings per capita are summarised in Table B.3.

Table B.3 Impact of change in fare levels on boardings per capita

Mode (a)	System (b)	Service area population (2015)	Total boardings (2015)	Change in real fare (c)			Explained change in boardings per capita (d)		
				2013	2014	2015	2013	2014	2015
Bus	Wellington	493,240	24,182,254	1.6%	-0.1%	-0.3%	-0.5%	0.0%	0.1%
	Christchurch	434,265	13,716,610	2.9%	5.6%	0.5%	-1.0%	-1.9%	-0.2%
	Hamilton	245,080	4,171,873	5.4%	-1.1%	0.4%	-1.8%	0.4%	-0.1%
	Napier/Hastings	128,935	712,953	1.3%	2.9%	0.8%	-0.5%	-1.0%	-0.3%
	Tauranga	125,360	1,864,548	-	-	-	-	-	-
	Dunedin	120,730	2,162,132	2.2%	-2.7%	1.0%	-0.8%	1.0%	-0.4%
	Palmerston North	101,450	488,247	13.7%	6.2%	3.8%	-4.4%	-2.1%	-1.3%
	New Plymouth	65,530	571,779	2.6%	0.1%	-0.6%	-0.9%	0.0%	0.2%
	Nelson	61,915	412,481	-	-2.2%	-1.9%	-	0.8%	0.7%
	Rotorua	56,825	883,904	-	-	-	-	-	-
	Whangarei	55,355	311,583	-6.2%	-4.5%	0.4%	2.3%	1.6%	-0.2%
	Invercargill	50,255	227,945	-	9.1%	12.1%	-	-3.0%	-3.9%
	Whanganui	39,385	155,141	-4.6%	-0.4%	0.5%	1.7%	0.1%	-0.2%
	Gisborne	35,665	146,511	-2.0%	-7.6%	-3.5%	0.7%	2.8%	1.2%
	Blenheim	30,635	26,264	-1.1%	-0.6%	0.2%	0.4%	0.2%	-0.1%
	Timaru	28,545	211,329	10.2%	19.2%	-0.8%	-3.3%	-6.0%	0.3%
	Taupo	23,700	24,912	6.7%	17.9%	-11.7%	-2.3%	-5.6%	4.5%
	Wakatipu Basin	20,195	485,449	5.5%	10.1%	26.4%	-1.9%	-3.3%	-7.9%
	Average (unweighted)			**2.7%**	**3.2%**	**1.7%**	**-0.9%**	**-1.1%**	**-0.6%**
	Average (weighted by boardings)			**2.3%**	**1.6%**	**0.4%**	**-0.8%**	**-0.5%**	**-0.1%**
	Auckland	1,462,765	60,477,100	-	-	-	-	-	-
	Perth	2,062,298	67,811,486	2.5%	-2.2%	-1.4%	-0.9%	0.8%	0.5%
	Adelaide (e)	1,316,288	36,820,358	-	-	1.3%	-	-	-0.4%
Train	Auckland	1,462,765	15,379,700	-	-	-	-	-	-
	Wellington	493,240	12,270,709	2.3%	0.2%	-0.3%	-0.8%	-0.1%	0.1%
	Perth	2,062,298	63,524,648	2.1%	-0.6%	-0.6%	-0.7%	0.2%	0.2%
Ferry	Auckland	1,462,765	5,720,300	-	-	-	-	-	-
	Wellington	493,240	180,213	1.5%	-0.1%	-0.3%	-0.5%	0.0%	0.1%

Notes:

(a) Bus mode includes busway boardings. Train and light rail boardings for Adelaide and ferry services for Perth are excluded.

(b) Only limited data was available for Tauranga, Rotorua and Auckland systems. Some very small systems have been excluded (e.g. Kaitaia, Whakatane/rural and Palmerston North satellite).

(c) Real fare is calculated as total fare revenue (excluding Supergold reimbursements) divided by total standard boardings (excluding free senior boardings). For some systems fare revenue was estimated by multiplying standard boardings by a weighted average fare.

(d) Explained change in boardings per capita is based on apply a relevant elasticity value to the change in fare.

(e) Due to data issues in Adelaide the 2014 data covers the 9-month period ending Feb-15 and the 2015 data covers the same period ending Feb-16.

For the NZ (bus) systems, we note the following:

- Data on average real fare changes was available for 16 of the 18 NZ bus systems (excluding Auckland). Table B.3 shows that the weighted average real fare changes for the three years

were 2.3%, 1.6% and 0.4%, with the corresponding unweighted estimates being 2.7%, 3.2% and 1.7%.

- The range of average fare changes across the different systems is notable. Taking the three years together, four systems appear to have increased their average (real) fares by more than 20% total, ie Palmerston North (24%), Invercargill (21% in the last two years), Timaru (29%) and Wakatipu (42%). Also two systems (Whangarei, Gisborne) appear to have reduced their real fares by around 10%, implying that their average fares have fallen significantly in money terms.

For the Australian systems, we note the following:

- Perth and Adelaide, both of which have integrated, multi-modal fares systems, both show very low or negative real fare increases for their bus and train systems over the assessment period. This reflects that they have not changed their fares every year, and that any increases have been closely related to CPI movements.

B.2.2. Basis of estimating fare changes and elasticities

The basis for estimating fare changes was as follows:

- Two approaches were taken to the estimation of changes in annual average fares:
  - Most regions provided information on total fare revenues per month along with total patronage (boardings) per month. In such cases, it was a simple matter to derive average fare revenue/boarding[9], on monthly and annual basis as required.
  - A number of regions provided information on the date of each of their fare changes since 2011 and their estimates of the weighted average fare change on each occasion.
- Where we had only one estimate of changes in average fares, we used that estimate. Where we had estimates using both approaches, we attempted to reconcile these, although this was not always possible. In such cases, we generally used the estimate based on the total revenue/total patronage calculation.
- We then converted the annual changes in average fares into real terms, allowing for inflation by applying the following NZ CPI factors to adjust figures for earlier years to 2015 prices (refer Appendix D.2. for CPI details):
  - 2012: 1.027
  - 2013: 1.016
  - 2014: 1.003
  - 2015: 1.000.

The estimates of fare elasticities and patronage impacts included the following considerations:

- Extensive evidence is available internationally, and considerable evidence available for NZ and Australia[10], on (real) fare elasticities for urban PT services. Following a detailed review of NZ /Australian and international evidence on the topic, an NZTA research report recommended short-run (c. 12 months) best estimate fare elasticities of -0.40 for urban bus services, -0.30 for urban rail services.[11]

[9] The boardings used for this calculation were 'standard' (excluding free senior) boardings.

[10] All the evidence indicates that there are no significant differences between fare elasticities in the two countries. Nor does there appear to be compelling evidence of significant differences in fare elasticity values for the different urban PT modes.

[11] Wallis I (2004). Review of Passenger Transport Demand Elasticities. Transfund NZ research report 248.

- Based on this evidence plus more recent work undertaken by IWA, we have selected a 'best estimate' short/medium run fares elasticity of -0.35 for all urban PT services covered in this study[12].
- By applying this elasticity value to the annual real fare changes shown in Table B.3, we derived estimates of the patronage/capita change expected as a result of the (real) fare changes, eg: a 3% increase/decrease in real fares would result in a 3% * 0.35 = 1.05% decrease/increase in patronage. The patronage/capita changes resulting from the fare changes are given on the RHS of Table B.3. Given the elasticity value selected, all the % changes in patronage/capita are about one-third of the % changes in (real) fares, but with the sign reversed.

B.3. Service levels

B.3.1. Summary of changes

The change in service in annual service levels (service-km) for each system and the resultant 'modelled' change in boardings per capita are summarised in Table B.4.

Table B.4 Impact of change in service levels (service km) on boardings per capita

Mode (a)	System (b)	Service area population (2015)	Total boardings (2015)	Change in service-kms (c)			Explained change in boardings per capita (d)		
				2013	2014	2015	2013	2014	2015
Bus	Wellington	493,240	24,182,254	-2.1%	3.5%	0.7%	-1.1%	1.7%	0.3%
	Christchurch	434,265	13,716,610	-6.6%	-0.6%	-6.0%	-3.4%	-0.3%	-3.0%
	Hamilton	245,080	4,171,873	-0.1%	-4.0%	-1.3%	0.0%	-2.0%	-0.6%
	Napier/Hastings	128,935	712,953	5.9%	-5.0%	-6.0%	2.9%	-2.6%	-3.1%
	Tauranga	125,360	1,864,548	-	-	-	-	-	-
	Dunedin	120,730	2,162,132	-	-	-	-	-	-
	Palmerston North	101,450	488,247	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	New Plymouth	65,530	571,779	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Nelson	61,915	412,481	-	-1.4%	-0.3%	-	-0.7%	-0.1%
	Rotorua	56,825	883,904	-	-	-	-	-	-
	Whangarei	55,355	311,583	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Invercargill	50,255	227,945	-	0.0%	0.0%	-	0.0%	0.0%
	Whanganui	39,385	155,141	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Gisborne	35,665	146,511	-5.1%	-16.1%	0.0%	-2.6%	-8.4%	0.0%
	Blenheim	30,635	26,264	3.8%	4.5%	-0.3%	1.9%	2.2%	-0.2%
	Timaru	28,545	211,329	8.3%	10.9%	-0.1%	4.1%	5.3%	0.0%
	Taupo	23,700	24,912	21.9%	18.0%	0.0%	10.4%	8.6%	0.0%
	Wakatipu Basin	20,195	485,449	-	-	-	-	-	-
	Average (unweighted)			**2.2%**	**0.7%**	**-0.9%**	**1.1%**	**0.3%**	**-0.5%**
	Average (weighted by boardings)			**-2.7%**	**1.0%**	**-1.5%**	**-1.3%**	**0.5%**	**-0.7%**
	Auckland	1,462,765	60,477,100	-	-	-	-	-	-
	Perth	2,062,298	67,811,486	3.8%	3.7%	3.2%	1.9%	1.8%	1.6%
	Adelaide (e)	1,316,288	36,820,358	-	-	1.2%	-	-	0.6%
Train	Auckland	1,462,765	15,379,700	-	-	-	-	-	-
	Wellington	493,240	12,270,709	-0.1%	1.2%	5.3%	0.0%	0.6%	2.6%
	Perth	2,062,298	63,524,648	6.7%	4.5%	7.8%	3.3%	2.2%	3.8%
Ferry	Auckland	1,462,765	5,720,300	-	-	-	0.0%	-0.2%	-0.3%
	Wellington	493,240	180,213	-	-	-	-3.2%	-4.7%	-0.4%

Notes:

(a) Bus mode includes busway boardings. Train and light rail boardings for Adelaide and ferry services for Perth are excluded.

[12] The short/medium run period would typically be around 1-2 years following any fare change. In the longer run (eg 5-10 years), the elasticity will be somewhat higher, although the evidence is not conclusive on the extent of any longer run differences.

(b) Only limited data was available for Tauranga, Rotorua and Auckland systems. Some very small systems have been excluded (e.g. Kaitaia, Whakatane/rural and Palmerston North satellite).
(c) Average service-km per month were estimated from data provided and adjusted for major service changes.
(d) Explained change in boardings per capita is based on apply a relevant elasticity value to the change in service-km
(e) Due to data issues in Adelaide the 2014 data covers the 9-month period ending Feb-15 and the 2015 data covers the same period ending Feb-16.

For the NZ (bus) systems, we note the following:

- Data on annual service km was available for 14 of the 18 NZ bus systems (excluding Auckland). Table B.4 shows that, at an aggregate system level, service levels changed only slightly over the assessment period (effectively four years), with the weighted average showing an overall reduction of 1.5% and the unweighted average showing an overall reduction of 0.9%.
- However, the changes in service levels in individual systems tend to be larger than these averages: four of the systems (Christchurch, Hamilton, Napier/Hastings, Gisborne) showed service reductions over the three years of more than 5%, while three of the smaller systems (Blenheim, Timaru, Taupo) showed increases of more than 5%.
- To a surprising extent, some regions had difficulties in providing their total service km statistics over the assessment period on a consistent basis. It is therefore unclear to us, for several systems, whether the changes shown are correct.

For the Australian systems, we note the following:

- For Perth, bus service km increased by some 11% over the three years. Our understanding is that much of this increase relates to a service expansion program which was funded some years ago, in a period of ongoing strong patronage growth.
- For Adelaide, changes in aggregate bus service km were minimal over the assessment period.

B.3.2. Basis of estimating service levels and elasticities

The basis for estimating service changes was as follows:

- For simplicity and consistency, we adopted total service kilometres provided as the measure of service levels (noting that the study required estimates only of changes in service levels in each centre, not absolute levels).
- As in the case of average fares, two approaches were taken to the estimation of service levels and changes in these:
    - Most regions provided information on total scheduled service kilometres per month.
    - For most regions, service-km were “standardised” to relate to an average month (removing the effects of the different number of days by day type in each month). The standardised monthly service-km were then aggregated to estimate total annual service-km (actual service-km were only used for Blenheim, Kaitaia, Wellington (bus, ferry), Adelaide and Perth).

The estimates of service elasticities and patronage impacts included the following considerations:

- In estimating the patronage impacts of the annual changes in service kilometres, a similar approach was taken to that applied for assessing the impacts of fare changes.
- Based on the available evidence, as most relevant to the situations of bus services in the NZ systems, we have selected a ‘best estimate’ short/medium run service kilometre elasticity of 0.50 for purposes of this assessment.
- By applying this elasticity value to the annual service km changes shown in Table B.4, we derived estimates of the patronage/capita change expected as a result of the service changes, eg: a 5% increase/decrease in service km would result in a 5% * 0.5 = 2.5% increase/decrease in patronage. The patronage/capita changes resulting from the service changes are given on the RHS of Table B.4.

B.4. Petrol and motoring costs and car ownership levels

B.4.1. Summary of changes

The changes in real petrol price and cars per capita and the resultant 'modelled' change in boardings per capita is summarised in Table B.5. The RHS of Table B.5 shows our overall estimate on the effects of petrol price changes and car ownership changes on PT patronage over the last 4 years:

- For the first two of these years, the effects are small, with a patronage reduction of around 0.5% in 2013.
- For the two more recent years, the effects are more substantial: for 2014, the patronage reductions would be some 1.1% (bus) and 1.3% (train/ferry); for 2015, the reductions would be 2.3% (bus) and 3.3% (train/ferry).

In interpreting these results, it needs to be acknowledged that they are subject to quite substantial uncertainty. However, it is worth commenting that the majority of the estimated patronage impact in 2015 relates to the fuel price changes, for which there is reasonable confidence in the elasticities; whereas the impacts of the car ownership changes, for which the elasticity is considerably more uncertain, account for only a minority of the overall effects in 2015 (when the total impacts are greatest).

Table B.5 Impact of change in real petrol price and cars per capita on boardings per capita

Calendar year	Petrol Prices (real)			Cars/Person		Total Patronage Impacts	
	% change	% effect on PT patronage[(a)]		% change	% effect on PT patronage[(b)]	Bus	Train/Ferry
		Bus	Train/Ferry				
2012	+0.6%	+0.09%	+0.15%	-0.07%	+0.04%	+0.13%	+0.19%
2013	-0.7%	-0.11%	-0.18%	+0.70%	-0.35%	-0.46%	-0.53%
2014	-1.9%	-0.29%	-0.48%	+1.58%	-0.79%	-1.08%	-1.27%
2015	-9.8%	-1.47%	-2.45%	+1.61%	-0.81%	-2.28%	-3.26%

Notes:

(a) Applying cross-elasticities of 0.15 for bus, 0.25 for train/ferry.

(b) Applying a cross-elasticity of -0.50 (refer text).

Notes:

(a) Explained change in boardings per capita is based on applying relevant elasticity values to the change in real petrol price and cars per capita respectively.

B.4.1.1. Petrol prices

Table B.6 sets out annual average retail petrol prices in NZ since 2010, and also shows these expressed in real terms (adjusted to $2015, by applying the NZ all groups CPI). Real petrol prices increased by some 12% in 2011 (relative to 2010), then changed only marginally for the following three years, and then fell by some 10% in 2015 (back to a level very similar in real terms to that in 2010).

Table B.6 Petrol Price Changes 2010 - 2015

Calendar year	Ave retail petrol price (¢/litre) [(a)]	CPI factor to year 2015 [(b)]	Ave retail petrol price (¢/litre, 2015)	Annual real change
2010	176.7	1.079	190.7	
2011	205.9	1.038	213.7	+12.0%
2012	209.4	1.027	215.0	+0.6%
2013	210.3	1.015	213.5	-0.7%
2014	208.8	1.003	209.4	-1.9%
2015	188.8	1.000	188.8	-9.8%

Notes:

(a) MBIE weekly oil price monitoring (http://www.mbie.govt.nz/info-services/sectors-industries/energy/liquid-fuel-market/weekly-oil-price-monitoring)

(b) Statistics NZ – NZ CPI, all groups, annual average.

B.4.1.2. Car ownership levels

Table B.7 sets out NZ-wide statistics for annual average car ownership and population in the years 2011-2015. Over the four years, the total cars licensed in NZ increased by 8.3% and the total population by 4.3%, resulting in an increase in cars/person by 3.9%, ie an average of almost 1.0% pa.

As seen in Table 5.3, most of this car ownership increase was in the two most recent years (2014 and 2015), with increases in both years of 1.6% pa. No data is readily available on the breakdown of these car ownership trends by region/local authority area, or between cars owned by businesses and those owned by private households.

Table B.7 New Zealand car ownership levels 2011 to 2015

Calendar Year	NZ population 000 (annual average)	NZ licensed cars 000 (annual average)	Cars per person (annual average)	Annual change % pa
2011	4367	2337	0.535	
2012	4395	2351	0.535	-0.1%
2013	4425	2383	0.539	+0.7%
2014	4476	2449	0.547	+1.6%
2015	4553	2532	0.556	+1.6%

B.4.1.3. Other motoring costs

Changes in **other motoring costs** (e.g. repairs and maintenance) were considered but have not been included in the analysis:

- Fuel accounts for the majority of the variable costs of car use, with other components being repairs and maintenance, tyres and oil. A common view is that most people do not take account of these 'other' variable costs in their day-to-day choice between using their car or public transport. In any event, these 'other variable' costs have not changed significantly in real terms over the last three years.
- The 'fixed' costs of car ownership (principally depreciation, interest on capital, insurance and licensing) typically account for the majority of the total costs of car ownership and operation (about 60%-65%, based on the AA annual survey of car running costs).[13] While these cost components undoubtedly affect people's decisions on whether or not to own a car and what sort of car to buy (refer below), they are not typically taken into account when people decide on their choice of mode on a day-to-day basis.

B.4.2. Basis of estimating impacts and elasticities

The basis for estimating the impact of petrol costs and car ownership levels on patronage was as follows:

- While the above factors may have had some influence on PT patronage over the last few years, our assessment would be that changes in petrol prices would have had the greatest effect; changes in car ownership levels may have had a secondary, smaller effect; and any changes (which have been very slight) on the other 'variable' motoring costs and the fixed costs of car ownership would have had a more-or-less negligible effect – which is therefore not addressed further.
- In relation to **petrol prices**, the weight of Australasian (including NZ) evidence is that:
    - The cross-elasticity of PT demand with respect to (real) petrol prices is relatively low, with most significant estimates in the range 0.10 to 0.25 (ie a 10% fall in petrol prices would result in a PT patronage reduction of 1% to 2.5%).14

[13] The AA survey assumes that cars are bought new and sold after 5 years, with the cost analysis relating to the middle year of this 5-year period. This approach significantly overstates the interest and depreciation costs in the AA model, as compared with typical costs for the NZ car fleet (with an average age of c. 10 years).

[14] Reference; IWA (2016). Perth Patronage Analysis and Forecasting Project: Main Report (draft). A062.

  - The cross-elasticity is higher than the average for longer-distance trips, and in particular for train trips.[15]
- On this basis, we have adopted a fuel price cross-elasticity of 0.15 for bus mode, 0.25 for train and ferry modes.
- The results of applying these elasticities to the change in (real) petrol prices over each of the four years to 2015 are shown in the LHS of Table B.5. For 2015 year (when the petrol price change has been greatest), the results indicate a reduction in bus patronage of some 1.5%, in train/ferry patronage of some 2.5% as a result of the price change.
- In relation to **car ownership**, the impacts on PT patronage are subject to greater uncertainty, as the international literature on the strengths of this relationship in situations of relatively high car ownership (as in NZ) is rather limited and inconclusive.16 In the absence of any clear guidance from the literature, we have adopted a cross-elasticity of patronage with respect to cars/person of -0.5, ie a 10% increase in average cars/person would result in a patronage reduction of 5%. The results of applying this assumption are included in the middle portion of Table B.5: this shows that for the last two years the effect of increasing car ownership was a patronage decline of about 0.8% in each year.

B.5. Other contributory factors

The analysis has focused on variables for which data was readily available. Other factors such as special events or weather conditions were not taken into account as this would require a detailed knowledge of each individual system.

We have not sought to identify specific factors behind the systems with substantial under- or over-prediction relative to our model forecasts, as listed above. This would have required substantial further work, including detailed discussions with regional council (and in some cases TLA) staff.

B.6. Summary of model outputs

The detailed model outputs by mode, system and variable are shown in Table B.9 (change in each variable) and Table B.10 (explained change in patronage due to each variable) on pages 21 and 22. A summary of these results is provided in Table B.8, for each year and for the weighted and unweighted averages for bus services in all NZ systems, of:

- modelled impacts on boardings/capita of each variable;
- modelled impacts of the four variables in total; and
- comparison of modelled impacts with actual changes in boardings/capita.

[15] There are two reasons for this: (i) fuel prices account for a greater proportion of the total generalised (time and money) costs of longer trips, and therefore traveller behaviour is likely to be more sensitive to fuel prices for longer trips; and (ii) the rail mode is generally regarded as a more attractive alternative to car use than is the bus mode.

[16] Extensive discussion on this topic is given in the UK 'Demand for Public Transport' report (Balcombe et al, 2004, chapter 10). This discussion does not result in any 'preferred' estimates, and notes the difficulties of disentangling car ownership effects from income effects.

Table B.8 Summary of model impact estimates on boardings/capita and comparisons with actual changes (NZ systems – bus services)

Modelled impacts of changes in variable on boardings/capita		Annual change (relative to previous year)		
		2013	2014	2015
Fares	Weighted	-0.8%	-0.5%	-0.1%
	Unweighted	-0.9%	-1.1%	-0.6%
Service km	Weighted	-1.3%	+0.5%	-0.7%
	Unweighted	-1.1%	+0.3%	-0.5%
Petrol prices		-0.1%	-0.3%	-1.5%
Cars/capita		-0.3%	-0.8%	-0.8%
Model total	**Weighted**	**-2.6%**	**-1.1%**	**-3.2%**
	Unweighted	**-0.3%**	**-1.8%**	**-3.4%**
Actual changes in boardings/capita				
Actual total	**Weighted**	**+1.0%**	**+0.4%**	**-3.2%**
	Unweighted	**+0.5%**	**-0.6%**	**-4.4%**

For the weighted average results (on which we would place most reliance as representative of the sector overall), it is seen that:

- For 2015 (the year of primary interest in this assessment), the overall modelled estimate of the change in boardings/capita (-3.2%) compares very closely with the actual change (also -3.2%). This is a very encouraging result, in terms of the effectiveness of the model in 'explaining' the change in boardings/capita in 2015 relative to 2014.
- The components of the modelled 2015 change in boardings/capita are, in descending order of magnitude, petrol prices (-1.5%), car ownership (-0.8%), service km (-0.7%) and fares (-0.1%). It should be noted that each component results from a combination (product) of the percentage change in the variable (relative to the previous year) times the relevant elasticity estimate.
- For years 2013 and 2014, the model 'fit' to the actual changes is much less impressive than for 2015. For 2013, the overall model estimate is for a boardings/capita change of -2.6%, whereas the actual change was +1.0%. Similarly, for 2014 the modelled change was -1.1%, as compared with the actual change of +0.4%. It appears that, for these two years, the model is over-estimating the adverse effects on boardings/capita of some of the factors that have negative impacts (such as fare increases). Alternatively, actual boardings/capita in these years may have been positively influenced by factors that are not included in our model, on a national basis and/or a centre-specific basis.
- Whereas in 2015 the main modelled factors contributing to the boardings/capita reduction were exogenous to the PT system (i.e. petrol prices and car ownership levels), in 2013 the endogenous factors (ie fare increases and service reductions) were the main contributors to the modelled estimate of reductions in boardings/capita. In 2014, the causal factors contributing to the modelled reduction in boardings/capita were mixed: the impacts of an increase in real fares (estimated to reduce boardings by 0.6%) were cancelled out by an increase in service km (estimated to increase boardings by 0.5%), leaving a small fall in petrol prices (reducing boardings by 0.3%) and an increase in car ownership (reducing boardings by 0.8%) as contributing to the modelled reduction in boardings/capita of 1.1%.

In summary, our model assessment has been effective at an aggregate level in plausibly 'explaining' the c. 3% fall in boardings/capita in 2015 (relative to 2014). Further, our model incorporates well-established parameter (elasticity) values that are largely consistent with the considerable evidence from many other studies in NZ, Australia and internationally. However, given that the model was not successful in explaining the changes in boardings/capita in 2013 and 2014, we would be cautious about its wider use beyond the present study.

Examining the 2015 results at a disaggregate level (by individual centre), we find that while the weighted average unexplained difference between modelled and actual patronage changes was minimal (0.0%), the 'unexplained' boardings/capita figure was positive for five of the 18 systems,

negative in 13 of the systems (where 'positive' indicates that the model over-predicted the actual decline, 'negative' indicates under-prediction of the decline). Of the 13 'negative' cases, for five systems the decline was under-predicted by 3% or more:

- Rotorua (11.2%)
- Invercargill (7.1%)
- Napier/Hastings (4.3%)
- Palmerston North (3.9%)
- Wakatipu Basin (3.9%)
- Hamilton (3.4%).

The decline was over-predicted by 3% or more for only two systems:

- Taupo (14.4%)
- Gisborne (3.6%).

Table B.9 Summary of changes in variables examined

Mode (a)	System (b)	Service area population (2015)	Total boardings (2015)	Change in total boardings per capita			Change in real fare			Change in service-kms			Change in real petrol price			Change in cars per capita		
				2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Bus	Wellington	493,240	24,182,254	-1.9%	0.8%	-0.5%	1.6%	-0.1%	-0.3%	-2.1%	3.5%	0.7%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Christchurch	434,265	13,716,610	7.6%	0.4%	-5.3%	2.9%	5.6%	0.5%	-6.6%	-0.6%	-6.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Hamilton	245,080	4,171,873	-3.3%	-0.2%	-6.5%	5.4%	-1.1%	0.4%	-0.1%	-4.0%	-1.3%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Napier/Hastings	128,935	712,953	8.1%	-1.2%	-9.9%	1.3%	2.9%	0.8%	5.9%	-5.0%	-6.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Tauranga	125,360	1,864,548	1.0%	-0.4%	-3.2%	-	-	-	-	-	-	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Dunedin	120,730	2,162,132	-1.4%	-1.4%	-3.8%	2.2%	-2.7%	1.0%	-	-	-	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Palmerston North	101,450	488,247	-1.8%	-4.6%	-7.4%	13.7%	6.2%	3.8%	0.0%	0.0%	0.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	New Plymouth	65,530	571,779	1.2%	2.4%	-3.3%	2.6%	0.1%	-0.6%	0.0%	0.0%	0.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Nelson	61,915	412,481	-	7.6%	-0.5%	-	-2.2%	-1.9%	-	-1.4%	-0.3%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Rotorua	56,825	883,904	-0.9%	3.5%	-13.5%	-	-	-	-	-	-	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Whangarei	55,355	311,583	4.3%	-0.8%	-3.8%	-6.2%	-4.5%	0.4%	0.0%	0.0%	0.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Invercargill	50,255	227,945	-	-2.8%	-13.2%	-	9.1%	12.1%	-	0.0%	0.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Whanganui	39,385	155,141	3.0%	1.7%	-5.3%	-4.6%	-0.4%	0.5%	0.0%	0.0%	0.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Gisborne	35,665	146,511	-8.8%	-4.1%	2.5%	-2.0%	-7.6%	-3.5%	-5.1%	-16.1%	0.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Blenheim	30,635	26,264	4.0%	3.8%	-4.1%	-1.1%	-0.6%	0.2%	3.8%	4.5%	-0.3%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Timaru	28,545	211,329	1.0%	-0.1%	-3.9%	10.2%	19.2%	-0.8%	8.3%	10.9%	-0.1%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Taupo	23,700	24,912	-3.4%	-8.6%	16.5%	6.7%	17.9%	-11.7%	21.9%	18.0%	0.0%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Wakatipu Basin	20,195	485,449	-0.7%	-6.3%	-13.9%	5.5%	10.1%	26.4%	-	-	-	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Average (unweighted)			**0.5%**	**-0.6%**	**-4.4%**	**2.7%**	**3.2%**	**1.7%**	**2.2%**	**0.7%**	**-0.9%**	**-0.7%**	**-1.9%**	**-9.8%**	**0.7%**	**1.6%**	**1.6%**
	Average (weighted by boardings)			**1.0%**	**0.4%**	**-3.2%**	**2.3%**	**1.6%**	**0.4%**	**-2.7%**	**1.0%**	**-1.5%**	**-0.7%**	**-1.9%**	**-9.8%**	**0.7%**	**1.6%**	**1.6%**
	Auckland	1,462,765	60,477,100	-1.6%	5.3%	1.2%	-	-	-	-	-	-	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Perth	2,062,298	67,811,486	-3.6%	-3.7%	-2.9%	2.5%	-2.2%	-1.4%	3.8%	3.7%	3.2%	-	-	-	-	-	-
	Adelaide (c)	1,316,288	36,820,358	-	-	-1.7%	-	-	1.3%	-	-	1.2%	-	-	-	-	-	-
Train	Auckland	1,462,765	15,379,700	4.3%	15.3%	19.5%	-	-	-	-	-	-	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Wellington	493,240	12,270,709	1.6%	4.2%	1.2%	2.3%	0.2%	-0.3%	-0.1%	1.2%	5.3%	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Perth	2,062,298	63,524,648	-3.8%	-2.9%	-2.2%	2.1%	-0.6%	-0.6%	6.7%	4.5%	7.8%	-	-	-	-	-	-
Ferry	Auckland	1,462,765	5,720,300	6.1%	-2.2%	7.6%	-	-	-	-	-	-	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%
	Wellington	493,240	180,213	0.3%	-1.3%	-2.8%	1.5%	-0.1%	-0.3%	-	-	-	-0.7%	-1.9%	-9.8%	0.7%	1.6%	1.6%

Notes:

(a) Bus mode includes busway boardings. Train and light rail boardings for Adelaide and ferry services for Perth are excluded.

(b) Only limited data was available for Tauranga, Rotorua and Auckland systems. Some very small systems have been excluded (e.g. Kaitaia, Whakatane/rural and Palmerston North satellite).

(c) Due to data issues in Adelaide the 2014 data covers the 9-month period ending Feb-15 and the 2015 data covers the same period ending Feb-16.

Table B.10 Summary of explained and unexplained changes in boardings per capita

							Change in boardings per capita due to …																	
		Service area population	Total boardings	Change in total boardings per capita			… change in to real fares			… change in service-kms			… change in real petrol price			… change in cars per capita			Explained change in boardings per capita			Unexplained change in boardings per capita		
Mode (a)	System (b)	(2015)	(2015)	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015	2013	2014	2015
Bus	Wellington	493,240	24,182,254	-1.9%	0.8%	-0.5%	-0.5%	0.0%	0.1%	-1.1%	1.7%	0.3%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-2.1%	0.7%	-1.9%	0.1%	0.1%	1.4%
	Christchurch	434,265	13,716,610	7.6%	0.4%	-5.3%	-1.0%	-1.9%	-0.2%	-3.4%	-0.3%	-3.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-4.8%	-3.2%	-5.4%	12.4%	3.6%	0.1%
	Hamilton	245,080	4,171,873	-3.3%	-0.2%	-6.5%	-1.8%	0.4%	-0.1%	0.0%	-2.0%	-0.6%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-2.3%	-2.7%	-3.1%	-1.0%	2.4%	-3.4%
	Napier/Hastings	128,935	712,953	8.1%	-1.2%	-9.9%	-0.5%	-1.0%	-0.3%	2.9%	-2.6%	-3.1%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	2.0%	-4.6%	-5.6%	6.1%	3.4%	-4.3%
	Tauranga	125,360	1,864,548	1.0%	-0.4%	-3.2%	-	-	-	-	-	-	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-0.5%	-1.1%	-2.3%	1.5%	0.7%	-0.9%
	Dunedin	120,730	2,162,132	-1.4%	-1.4%	-3.8%	-0.8%	1.0%	-0.4%	-	-	-	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-1.2%	-0.1%	-2.7%	-0.1%	-1.3%	-1.1%
	Palmerston North	101,450	488,247	-1.8%	-4.6%	-7.4%	-4.4%	-2.1%	-1.3%	0.0%	0.0%	0.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-4.8%	-3.1%	-3.6%	3.0%	-1.5%	-3.9%
	New Plymouth	65,530	571,779	1.2%	2.4%	-3.3%	-0.9%	0.0%	0.2%	0.0%	0.0%	0.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-1.3%	-1.1%	-2.1%	2.6%	3.5%	-1.2%
	Nelson	61,915	412,481	-	7.6%	-0.5%	-	0.8%	0.7%	-	-0.7%	-0.1%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-0.5%	-1.0%	-1.8%	-	8.6%	1.2%
	Rotorua	56,825	883,904	-0.9%	3.5%	-13.5%	-	-	-	-	-	-	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-0.5%	-1.1%	-2.3%	-0.5%	4.6%	-11.2%
	Whangarei	55,355	311,583	4.3%	-0.8%	-3.8%	2.3%	1.6%	-0.2%	0.0%	0.0%	0.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	1.8%	0.6%	-2.5%	2.5%	-1.3%	-1.4%
	Invercargill	50,255	227,945	-	-2.8%	-13.2%	-	-3.0%	-3.9%	-	0.0%	0.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-0.5%	-4.0%	-6.1%	-	1.2%	-7.1%
	Whanganui	39,385	155,141	3.0%	1.7%	-5.3%	1.7%	0.1%	-0.2%	0.0%	0.0%	0.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	1.2%	-0.9%	-2.5%	1.8%	2.6%	-2.8%
	Gisborne	35,665	146,511	-8.8%	-4.1%	2.5%	0.7%	2.8%	1.2%	-2.6%	-8.4%	0.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-2.3%	-6.9%	-1.1%	-6.4%	2.7%	3.6%
	Blenheim	30,635	26,264	4.0%	3.8%	-4.1%	0.4%	0.2%	-0.1%	1.9%	2.2%	-0.2%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	1.8%	1.3%	-2.6%	2.2%	2.4%	-1.5%
	Timaru	28,545	211,329	1.0%	-0.1%	-3.9%	-3.3%	-6.0%	0.3%	4.1%	5.3%	0.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	0.1%	-2.0%	-2.1%	0.9%	1.9%	-1.9%
	Taupo	23,700	24,912	-3.4%	-8.6%	16.5%	-2.3%	-5.6%	4.5%	10.4%	8.6%	0.0%	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	7.4%	1.4%	2.0%	-10.8%	-10.1%	14.4%
	Wakatipu Basin	20,195	485,449	-0.7%	-6.3%	-13.9%	-1.9%	-3.3%	-7.9%	-	-	-	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-2.3%	-4.3%	-10.0%	1.7%	-1.9%	-3.9%
	Average (unweighted)			**0.5%**	**-0.6%**	**-4.4%**	**-0.9%**	**-1.1%**	**-0.6%**	**1.1%**	**0.3%**	**-0.5%**	**-0.1%**	**-0.3%**	**-1.5%**	**-0.3%**	**-0.8%**	**-0.8%**	**-0.3%**	**-1.8%**	**-3.4%**	**0.8%**	**1.3%**	**-1.0%**
	Average (weighted by boardings)			**1.0%**	**0.4%**	**-3.2%**	**-0.8%**	**-0.5%**	**-0.1%**	**-1.3%**	**0.5%**	**-0.7%**	**-0.1%**	**-0.3%**	**-1.5%**	**-0.3%**	**-0.8%**	**-0.8%**	**-2.6%**	**-1.1%**	**-3.2%**	**3.6%**	**1.5%**	**0.0%**
	Auckland	1,462,765	60,477,100	-1.6%	5.3%	1.2%	-	-	-	-	-	-	-0.1%	-0.3%	-1.5%	-0.3%	-0.8%	-0.8%	-0.5%	-1.1%	-2.3%	-1.2%	6.4%	3.5%
	Perth	2,062,298	67,811,486	-3.6%	-3.7%	-2.9%	-0.9%	0.8%	0.5%	1.9%	1.8%	1.6%	-	-	-	-	-	-	1.0%	2.6%	2.1%	-4.5%	-6.3%	-5.0%
	Adelaide (c)	1,316,288	36,820,358	-	-	-1.7%	-	-	-0.4%	-	-	0.6%	-	-	-	-	-	-	0.0%	0.0%	0.1%	-	-	-1.8%
Train	Auckland	1,462,765	15,379,700	4.3%	15.3%	19.5%	-	-	-	-	-	-	-0.2%	-0.5%	-2.5%	-0.3%	-0.8%	-0.8%	-0.5%	-1.3%	-3.3%	4.9%	16.6%	22.8%
	Wellington	493,240	12,270,709	1.6%	4.2%	1.2%	-0.8%	-0.1%	0.1%	0.0%	0.6%	2.6%	-0.2%	-0.5%	-2.5%	-0.3%	-0.8%	-0.8%	-1.3%	-0.7%	-0.7%	3.0%	4.9%	1.9%
	Perth	2,062,298	63,524,648	-3.8%	-2.9%	-2.2%	-0.7%	0.2%	0.2%	3.3%	2.2%	3.8%	-	-	-	-	-	-	2.6%	2.4%	4.1%	-6.4%	-5.4%	-6.3%
Ferry	Auckland	1,462,765	5,720,300	6.1%	-2.2%	7.6%	-	-	-	-	-	-	-0.2%	-0.5%	-2.5%	-0.3%	-0.8%	-0.8%	-0.5%	-1.3%	-3.3%	6.7%	-1.0%	10.9%
	Wellington	493,240	180,213	0.3%	-1.3%	-2.8%	-0.5%	0.0%	0.1%	-4.9%	1.4%	-3.3%	-0.2%	-0.5%	-2.5%	-0.3%	-0.8%	-0.8%	-5.9%	0.1%	-6.4%	6.2%	-1.4%	3.6%

Notes:

(a) Bus mode includes busway boardings. Train and light rail boardings for Adelaide and ferry services for Perth are excluded.

(b) Only limited data was available for Tauranga, Rotorua and Auckland systems. Some very small systems have been excluded (e.g. Kaitaia, Whakatane/rural and Palmerston North satellite).

(c) Due to data issues in Adelaide the 2014 data covers the 9-month period ending Feb-15 and the 2015 data covers the same period ending Feb-16.

Appendix C Detail for individual systems

C.1. Wellington (bus)

Wellington (bus) boardings/capita, average fare and service-km are shown below. Key points to note:

- There has been little significant change in services levels, fares or boardings per capita.
- Fares levels have not increased since Oct-13, resulting a slight reduction in real average fares.

Figure C.1 Wellington (Bus) boardings per capita, real fares and service-km index

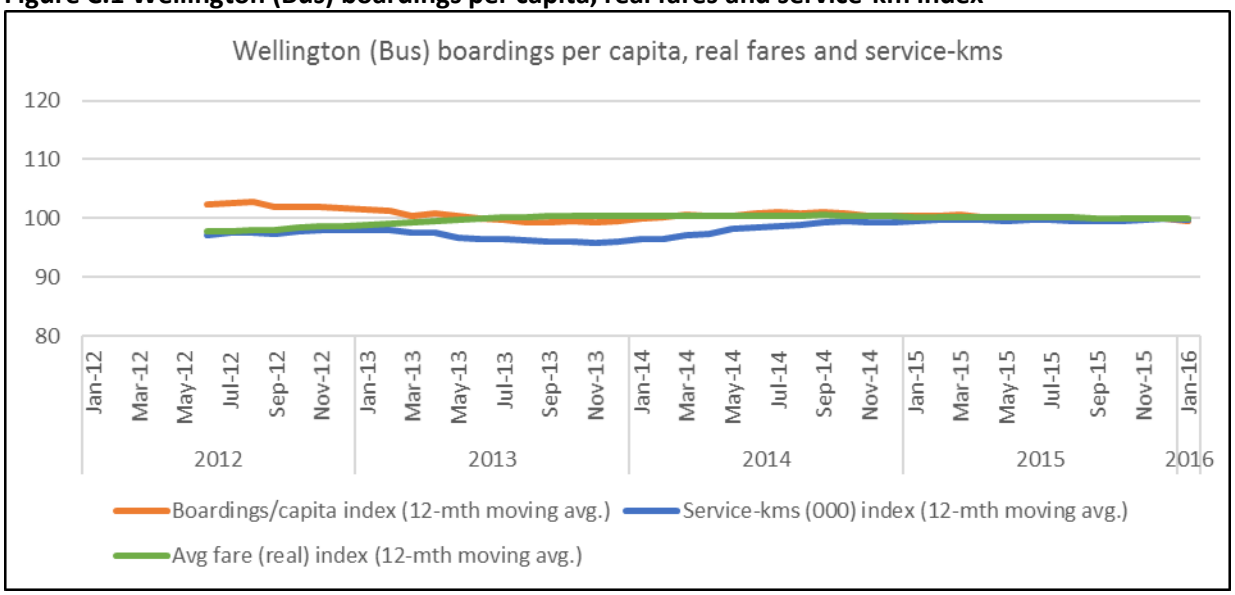
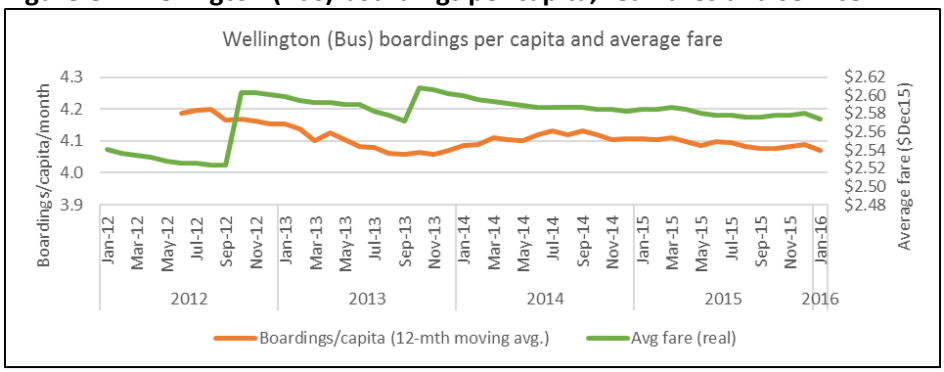
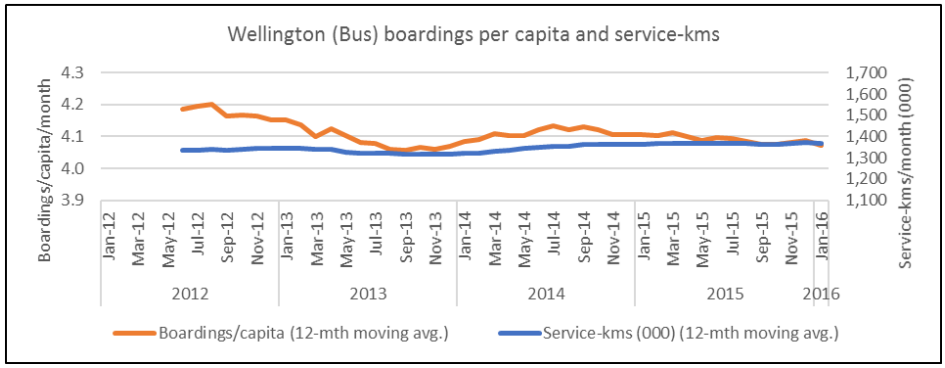


Figure C.2 Wellington (Bus) boardings per capita, real fares and service-km





C.2. Christchurch

Christchurch (bus) boardings/capita, average fare and service-km are shown below.

Figure C.3 Christchurch (Bus) boardings per capita, real fares and service-km index

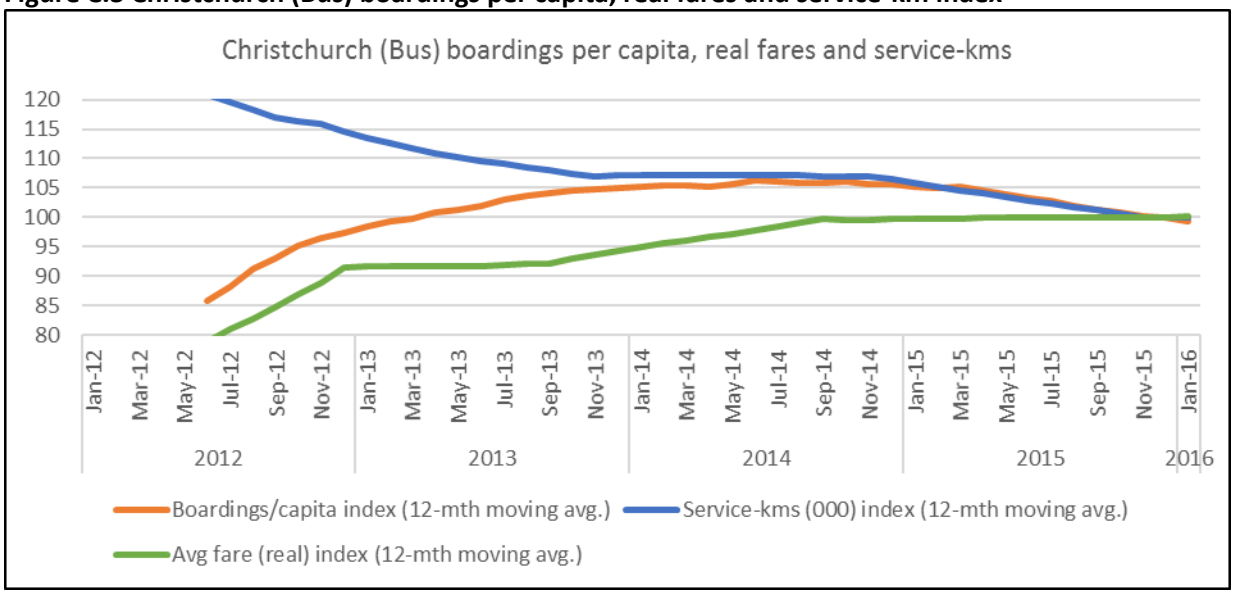
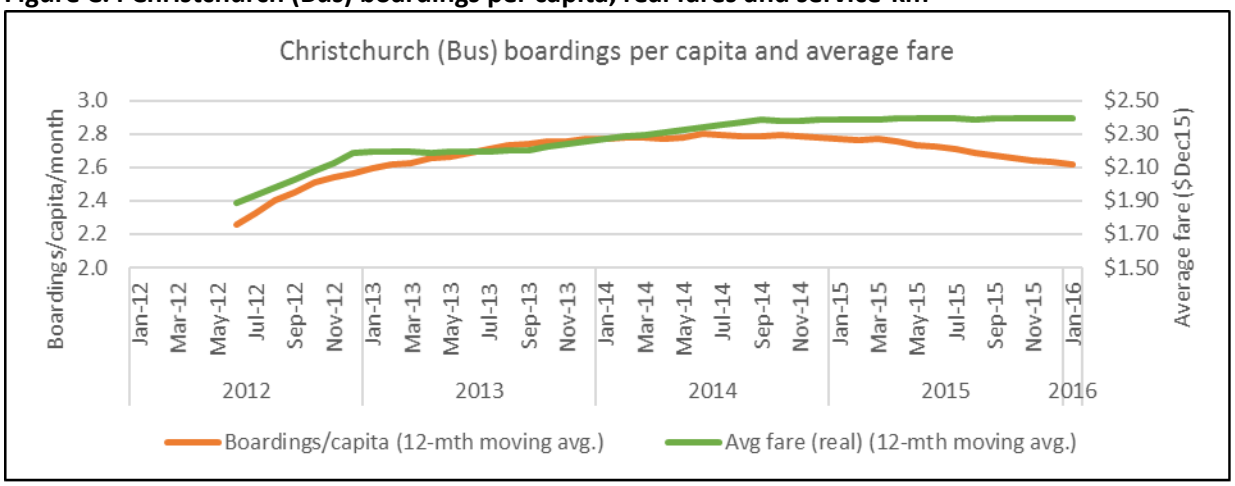
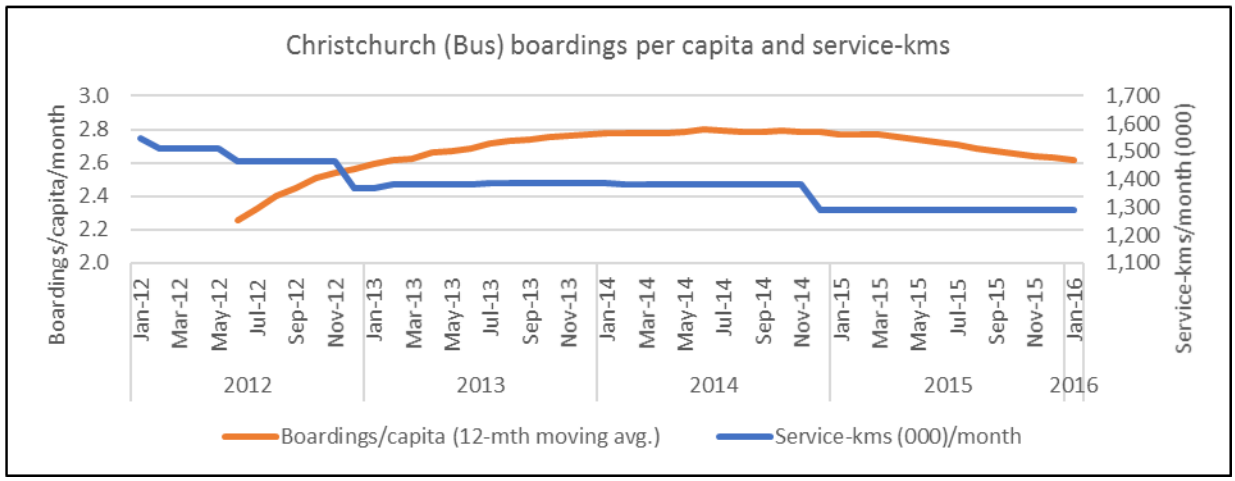


Figure C.4 Christchurch (Bus) boardings per capita, real fares and service-km





This rest of this appendix provides a further summary of the trends in Christchurch PT patronage since 2012 and explores the factors behind these trends. The changes in total (including ferry, but

excluding school bus services) PT patronage in Christchurch for each six-month period since mid-2012 are shown in the following table.

Table C.1 CHC patronage changes by 6-month periods 2012-2015

Year	Months	% patronage change from same period 12 months earlier	
		Total patronage	Patronage/person
2012	July - Dec	+29.6%	+30.4%
2013	Jan - June	+11.0%	+10.6%
	July - Dec	+7.4%	+6.0%
2014	Jan - June	+4.0%	+2.2%
	July - Dec	+0.6%	-1.6%
2015	Jan - June	-2.4%	-4.6%
	July - Dec	-3.9%	-6.1%

- In the earlier part of this period, patronage was clearly in 'recovery mode', broadly following a saturation curve up towards a 'saturation' level. The Dec 2012/ Feb 2013 service restructuring (which involved a reduction of some 5.4% in total route service kilometres) had no obvious effects on the recovery path (with the Jan-June 2013 period showing an 11.0% patronage increase over the period 12 months earlier).
- The above patronage trends statistics would be consistent with the new 'saturation level' being reached in early/mid 2014, eg the total patronage for the second half of 2014 was only marginally (+0.6%) higher than that a year earlier, and on a per capita basis was 1.6% lower than a year earlier. Thereafter, it might have been expected that patronage/capita would have been relatively static, affected mainly by any further changes in real fares, service levels and petrol prices.
- In the event, in 2015 patronage declined by 2.4% total/4.6% per capita in the first half of the year, and by 3.9% total/6.1% per capita in the second half. A key question is what has caused this recent and relatively rapid decline in patronage since early/mid 2014.
- Candidate contributory factors would appear to be:
    - Petrol prices (decline) and car ownership levels (increase)
    - Impacts of the 30 September 13 fare increase (8.6 % average)
    - Impacts of the Dec 14 service restructuring, which involved extension of the 'hub and spoke' system and a reduction in overall route service kilometres of approximately 5.4 %.
- **Petrol prices and car ownership levels.** As outlined earlier [section?], our assessment is that the combined effects of these factors is estimated to account for a patronage decline for NZ urban bus services in 2015 (relative to 2014) of around 2.3%.
- **Fare increases.** The September 2013 fare increase (8.6% average) resulted in the 2014 average fare being 6.3% higher in money terms (5.0% in real terms) than 2013. In 2015, with no fare changes and given the effects of inflation, average fares were 0.3% lower in real terms than 2014. The expected impact of these fare changes would, based on a real fare elasticity of -0.35, be a reduction in patronage of 1.8% in 2014 relative to 2013
- ***Service changes and restructuring (Dec 2014).*** These are considered in two components -- the impacts of the overall change in service levels that occurred (as measured by service km operated); and any additional impacts of service restructuring:
    - *Change in service levels.* The overall reduction in service kilometres was some 5.4 %. If this had been effected through an 'across-the-board' reduction in service frequencies (without any network restructuring), typical service elasticities in the range 0.3 to 0.6 would be expected to apply (in the short/medium term). Assuming a service elasticity of 0.50 in this case, the result would be a patronage reduction of some 2.7 % as a result of the frequency changes:
    - *Service restructuring.* It has not been possible to assess the effects of the Dec 14 restructuring by comparing patronage changes on 'restructured' versus

'unstructured' route groups or corridors, as there were no unaffected route groups or corridors that could be used as a 'control' against which the patronage on the affected services could be compared. Evidence on the effects of the restructuring is discussed further below.

- ***Summary of assessed effects.*** The following table summarises the assessed effects on patronage/capita in 2014 and 2015 of the above factors. These assessed impacts may be compared, on a calendar year basis, with the actual changes in patronage/capita set out in the earlier table:
    - For 2014 (relative to 2013), the assessed patronage/capita change of -2.9% (i.e. reduction) may be compared with the actual average figure for the year of +0.3% (i.e. increase).
    - For 2015 (relative to 2014), the assessed patronage/capita change of -4.9% (reduction) may be compared with the actual average figure of -5.4% (reduction).

Table C.2 Summary of assessed effects on patronage/capita, 2014 and 2015

	Impacts on patronage/capita changes	
Factor	2013-2014	2014-2015
Petrol prices, car ownership	-1.1%	-2.3%
Fares	-1.8%	+0.1%
Service km	0.0%	-2.7%
Total assessed	**-2.9%**	**-4.9%**

- For 2014, it is unclear why our estimate of patronage/capita changes (i.e. 2.9% reduction) is substantially worse than the actual marginal increase. The most likely answer would appear to be that, certainly in the first half of 2014, the patronage trends were still significantly affected by the post-earthquake 'recovery' phase, whereas this phase was very largely complete by the second half of the year, and certainly effectively complete by 2015.
- For 2015, our assessment of patronage reductions from 2014 (4.9%) is not much less than the observed figure (5.4%). This might suggest that any impact of the December 2014 service restructuring (as distinct from the change in service km accompanying the restructuring) on patronage was quite small (positive or negative). However, we could not be confident about this conclusion, given the inevitable uncertainties on how patronage would have been affected by the changes in the assessed factors, as estimated in the above table.
- It may well be that the service restructuring has had some adverse impacts on patronage, certainly in the shorter term. This tends to be borne out by ECan's own analyses and market research (which we have sighted). Whether the longer term impact of the restructuring on patronage will be positive or negative remains unclear.

C.3. Hamilton (urban and satellite)

Hamilton (urban and satellite) boardings/capita, average fare and service-km are shown below. Key points to note:

- Hamilton boardings per capita continue to fall, although they were relatively stable during the 2014 calendar year.
- Hamilton have not increased urban fares since Jan-13 and satellite service fares since Jan-14.
- Significant changes were made to the Northern Connector service between the city and Huntly in October 2013. These changes provided additional service, although the service-km data seems to indicate an overall reduction in service-km.

Figure C.5 Hamilton (urban and satellite) boardings per capita, real fares and service-km index

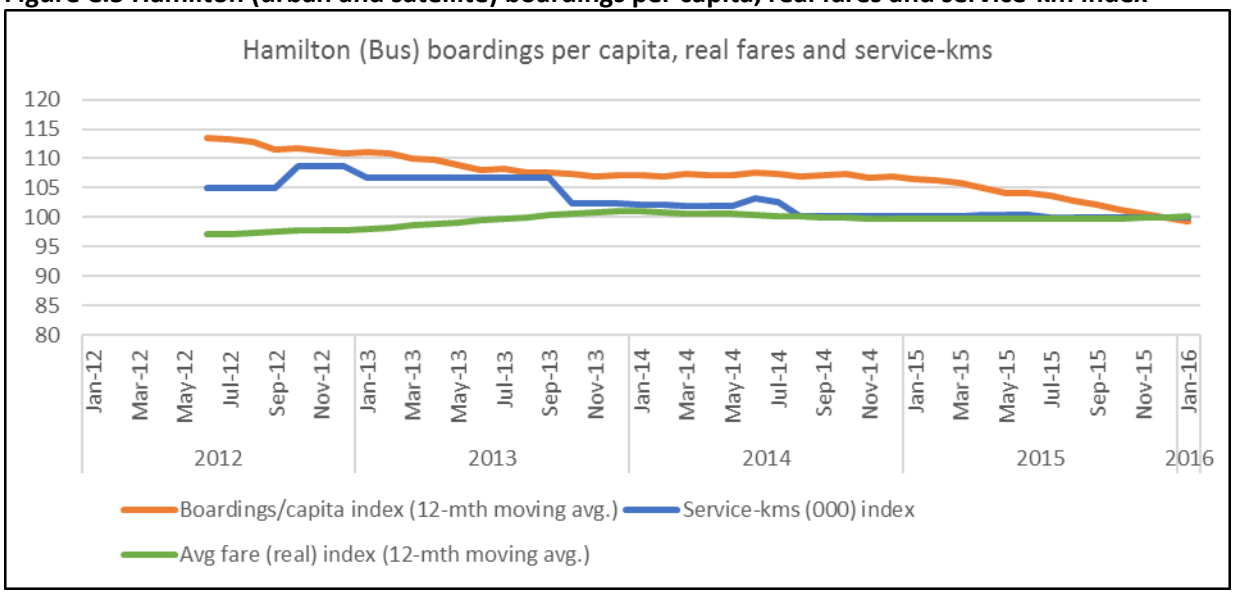
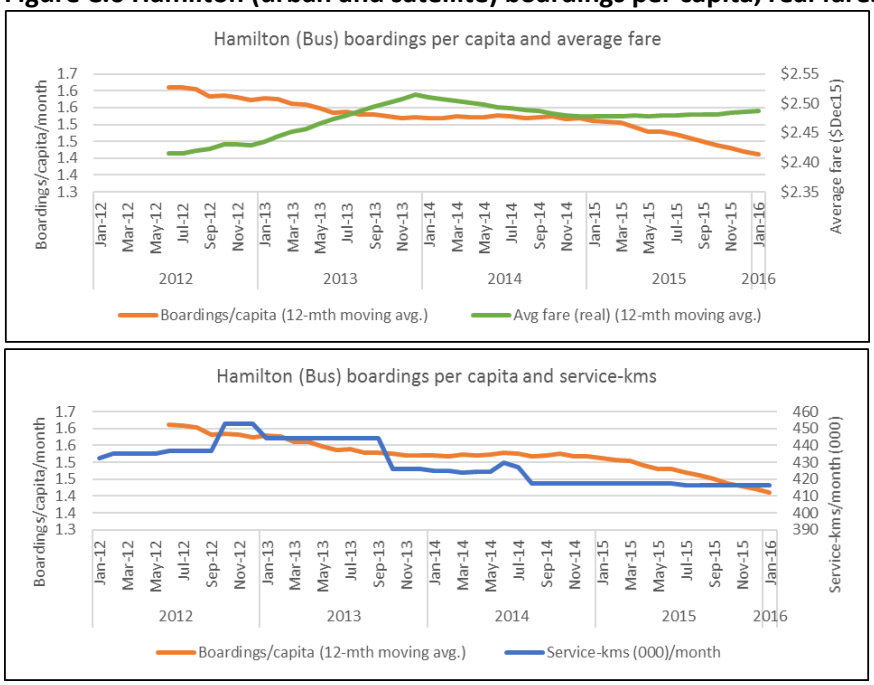


Figure C.6 Hamilton (urban and satellite) boardings per capita, real fares and service-km



C.4. Napier/Hastings

Napier/Hastings boardings/capita, average fare and service-km are shown below. Key points to note:

- Napier/Hasting boardings per capita have been falling since peaking early in the 2014 calendar year. The reduction in boardings brings the service back to mid-2015 levels.
- Service-km were reduced during the 2014 calendar year which may have contributed to the more recent decline in boardings per capita.
- Napier/Hastings fare have increased over the period of analysis although appear to have been relatively stable during the most recent calendar year.

Figure C.7 Napier/Hastings boardings per capita, real fares and service-km index

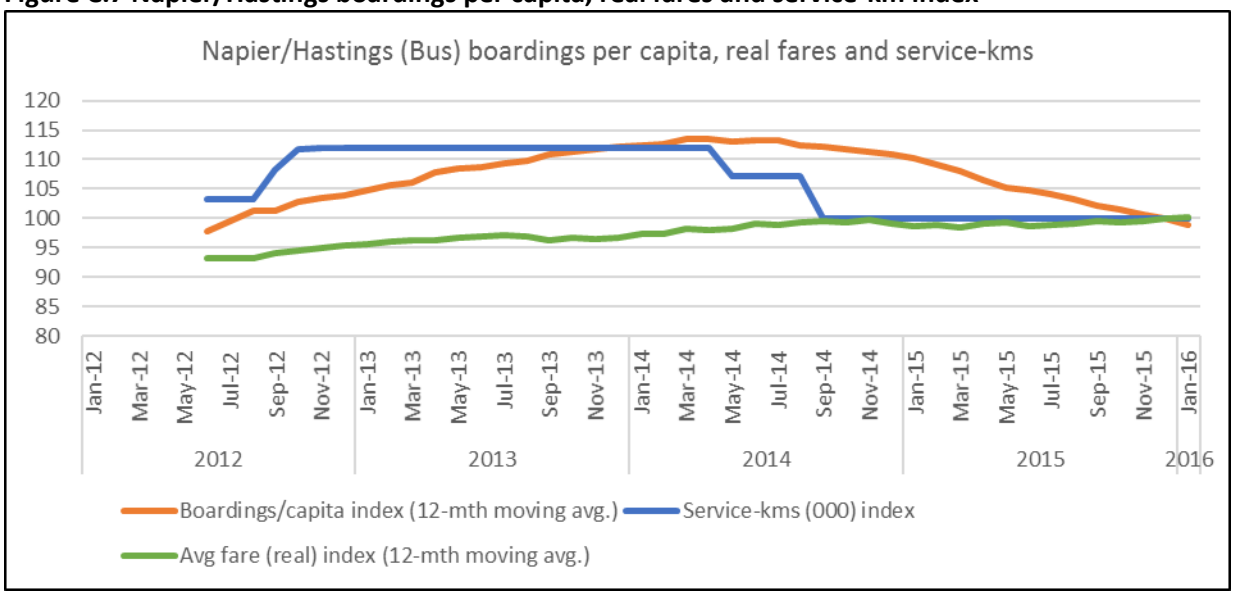
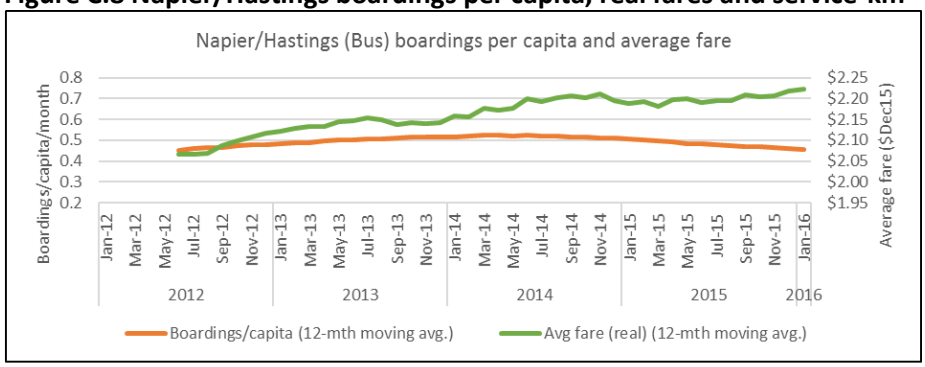
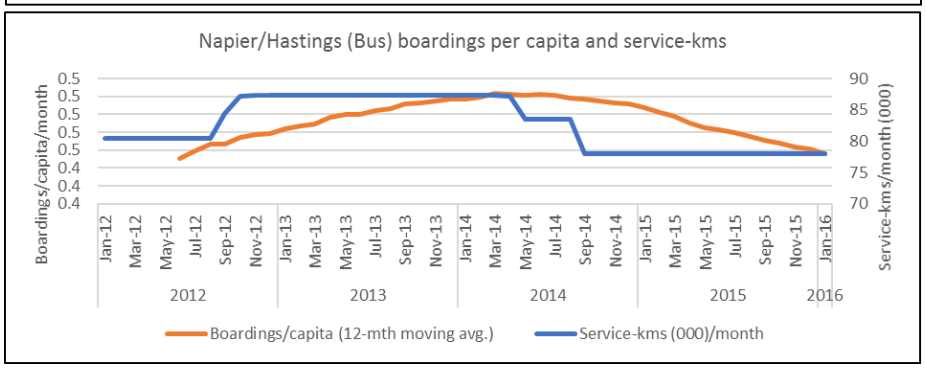


Figure C.8 Napier/Hastings boardings per capita, real fares and service-km





C.5. Tauranga

Tauranga boardings/capita, average fare and service-km are shown below. Key points to note:

- No data available on average fares or service-km.

Figure C.9 Tauranga boardings per capita, real fares and service-km index

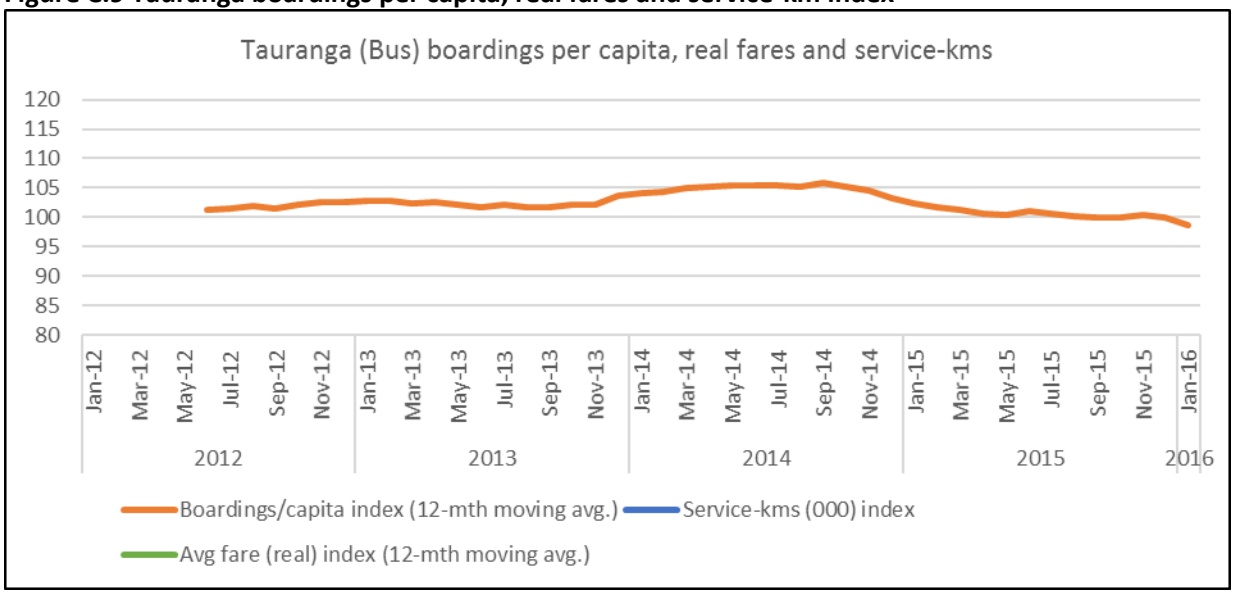
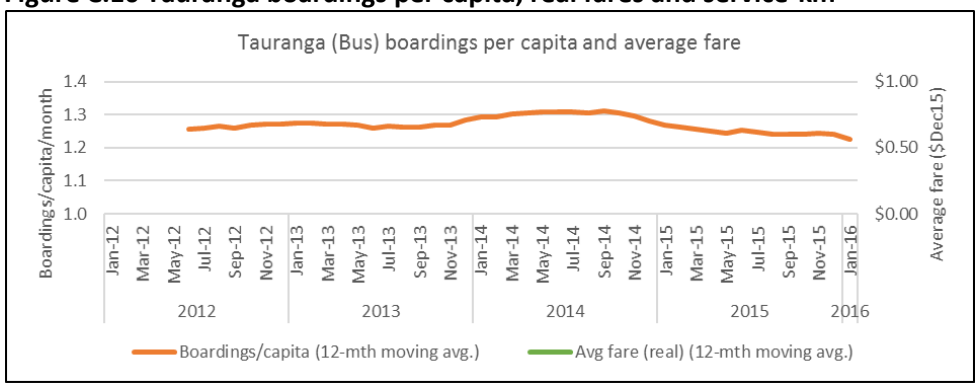
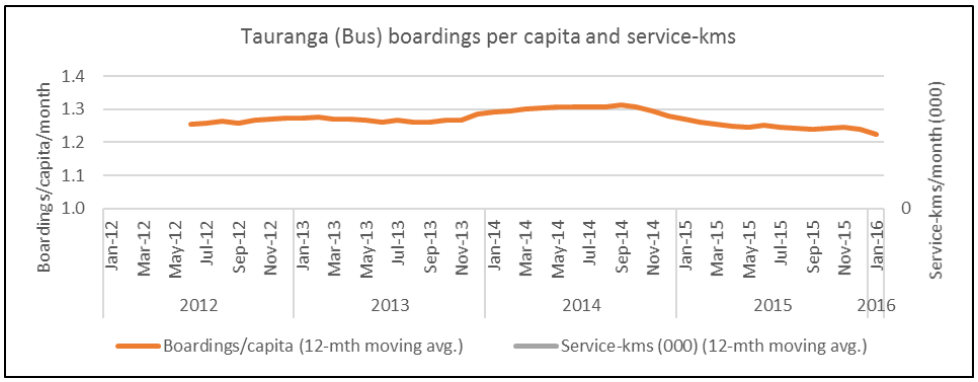


Figure C.10 Tauranga boardings per capita, real fares and service-km





C.6. Dunedin

Dunedin boardings/capita, average fare and service-km are shown below. Key points to note:

- Service-kms data was provided by financial year, but this was not broken down between Dunedin and Wakatipu Basin for the first year (2011/12) and did not identify the month of any service changes. It was therefore not possible to calculate the change in service-kms for the period of analysis with any degree of accuracy.
- Fare revenue includes the separately identified "pass revenue".

Figure C.11 Dunedin boardings per capita, real fares and service-km index

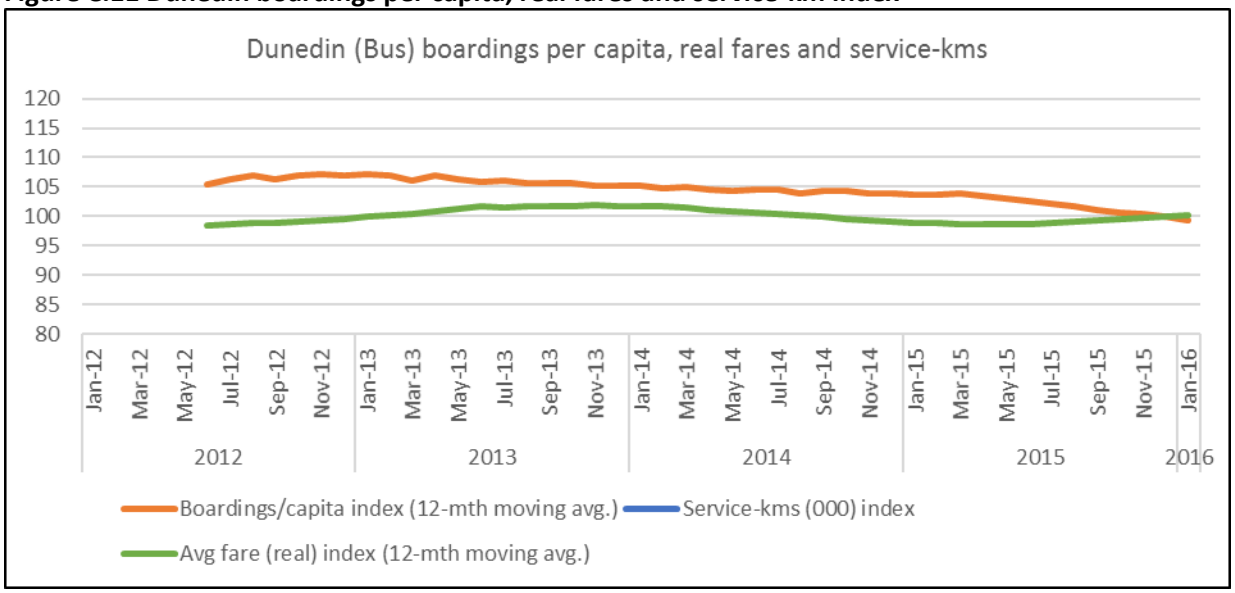
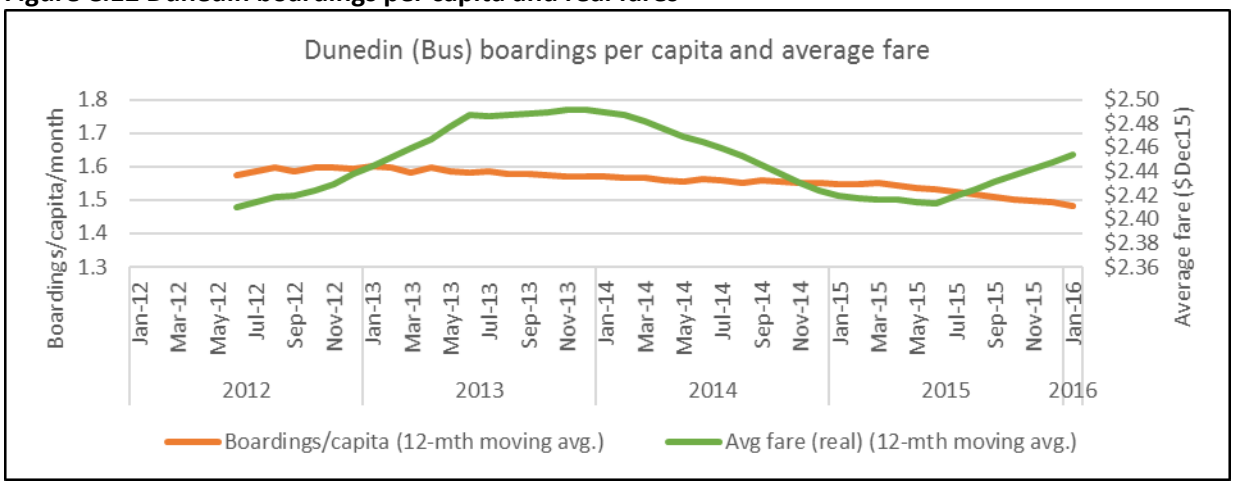


Figure C.12 Dunedin boardings per capita and real fares



C.7. Palmerston North

Palmerston North boardings/capita, average fare and service-km are shown below. Key points to note:

- There have been no significant service changes in Palmerston North during the analysis period, although fares have increased steadily and appear be a key contributor to the decline in boardings per capita.
- Please note the analysis undertaken here **excludes** free tertiary student boardings, which make up over half of all passenger boardings in Palmerston North (56% of all boardings between Jul-11 and Jan-16).

Figure C.13 Palmerston North boardings (excl. free student) per capita, real fares and service-km index

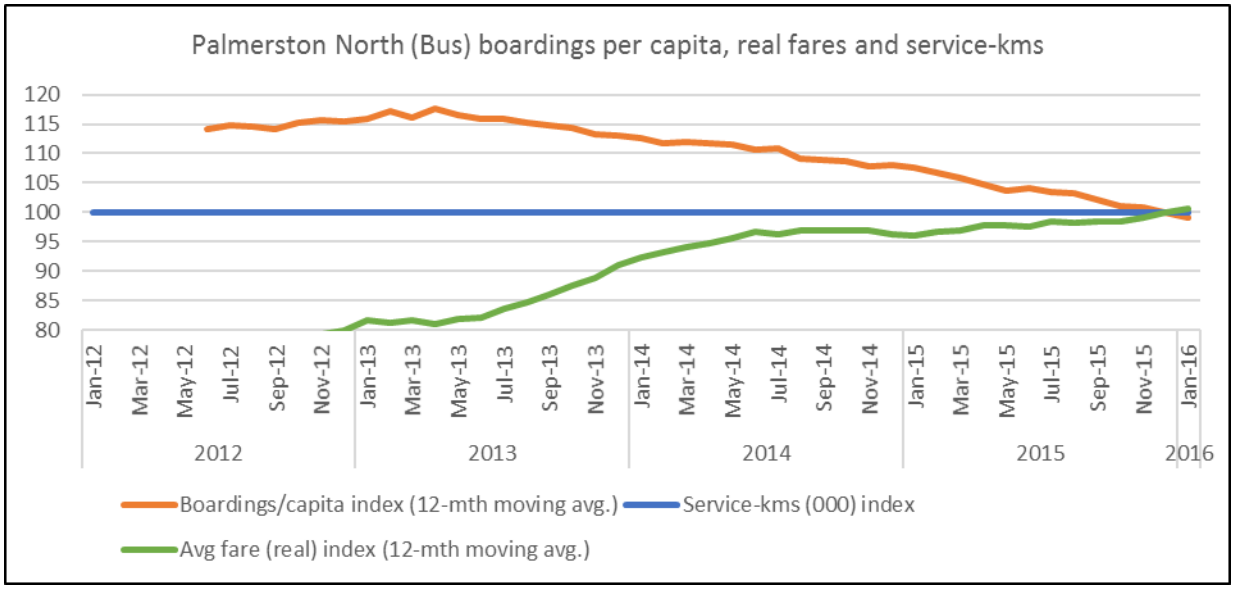
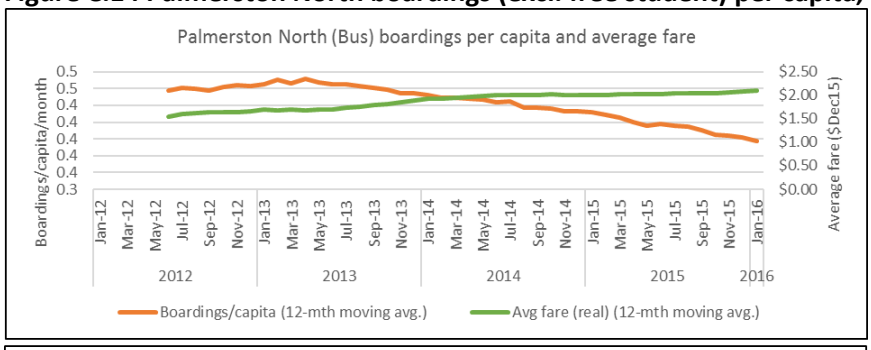
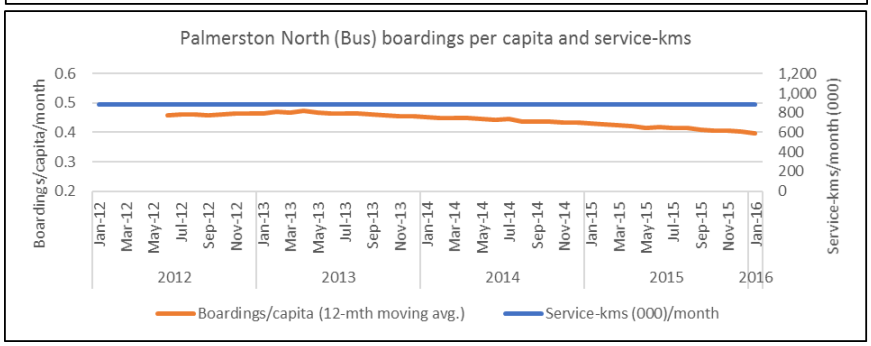


Figure C.14 Palmerston North boardings (excl. free student) per capita, real fares and service-km





C.8. New Plymouth

New Plymouth boardings/capita, average fare and service-km are shown below. Key points to note:

- New Plymouth boardings per capita, average fare and service-km have been relatively stable over the period of analysis, although the increase in average fares in Jan-15 appears to have contributed to a decline in patronage.

Figure C.15 New Plymouth boardings per capita, real fares and service-km index

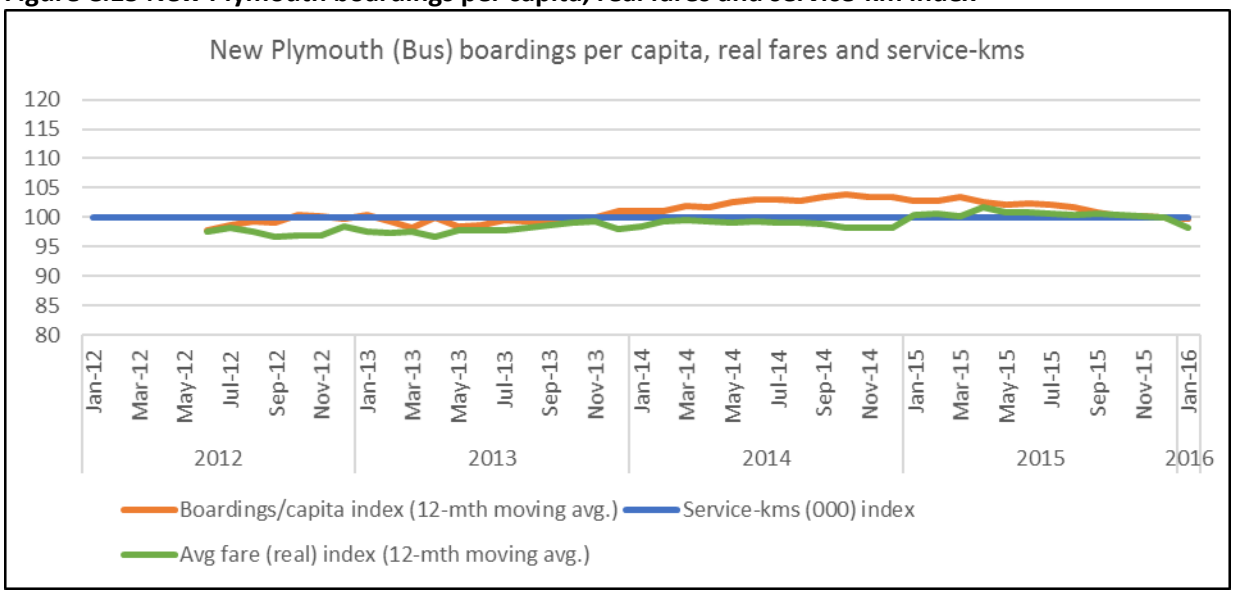
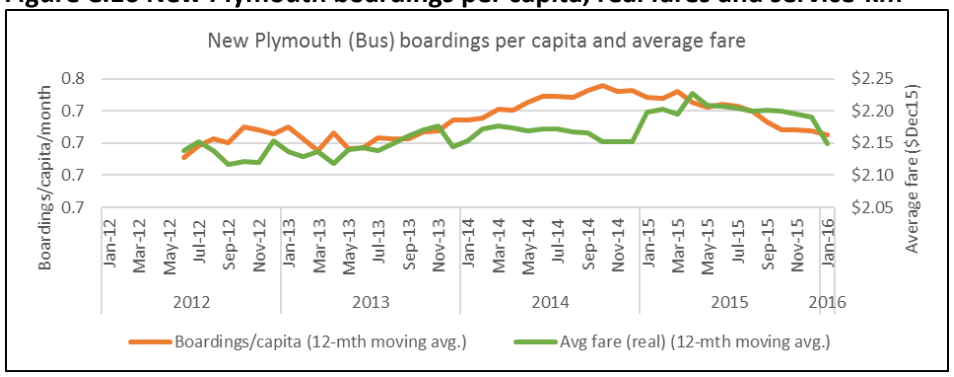
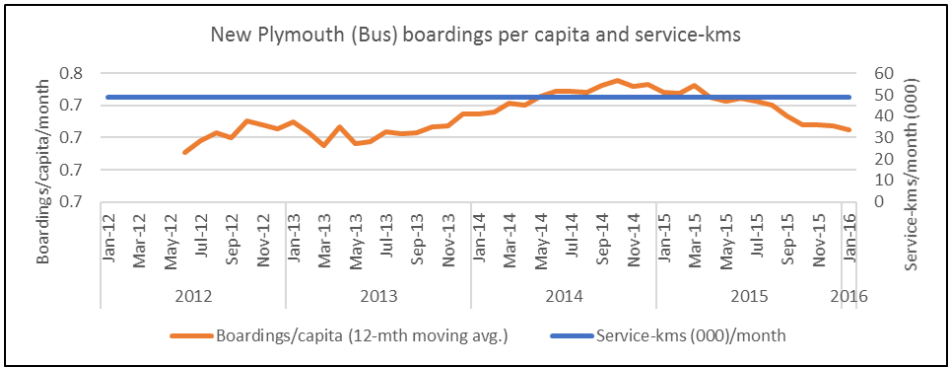


Figure C.16 New Plymouth boardings per capita, real fares and service-km





C.9. Nelson

Nelson boardings/capita, average fare and service-km are shown below. Key points to note:

- Boardings per capita have increased steadily since the introduction of a full Nelson bus service in Jan-2012 and stabilised towards the end of Nov-14. This pattern of growth is to be expected following the introduction of a new/improved service.
- Service changes in Jul-14 included the introduction of weekend services on Route 1 and an additional Saturday morning service on Route 2. At the same time the first and last weekday trips were cut on routes 3, 4 and 5 resulting in a small overall reduction in service-km.
- A new service (Stoke loop route) commented in Dec-15, which is the large increase in service-km at the end of the data series.

Figure C.17 Nelson boardings per capita, real fares and service-km index

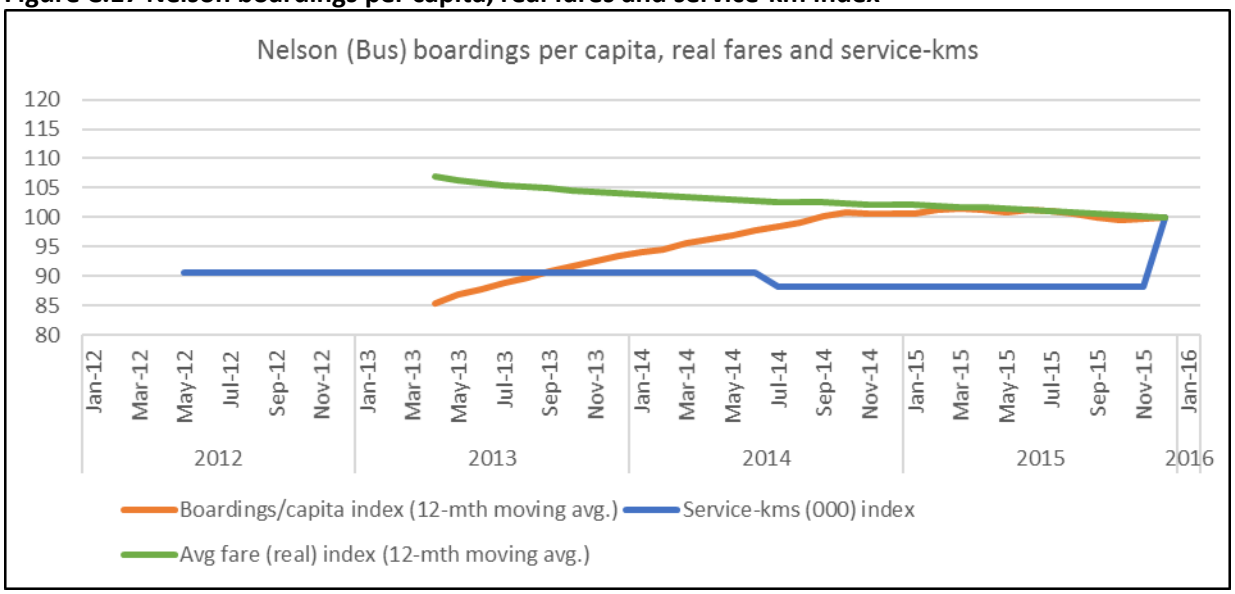
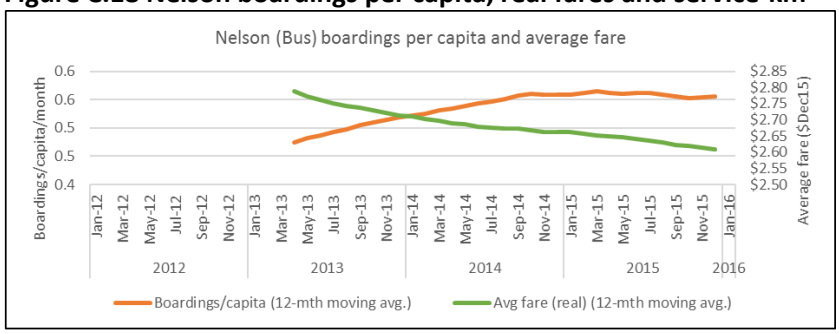
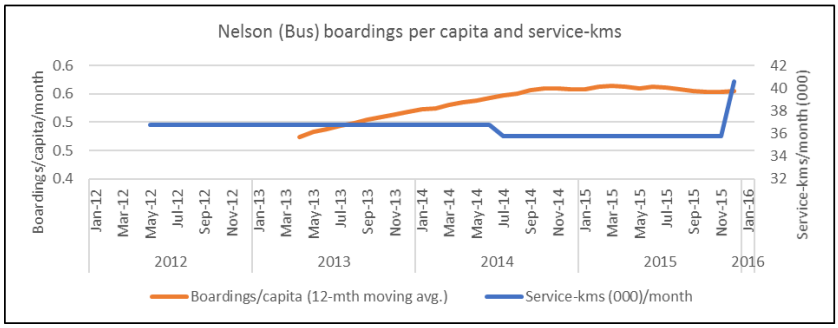


Figure C.18 Nelson boardings per capita, real fares and service-km





C.10. Rotorua

Rotorua boardings/capita, average fare and service-km are shown below. Key points to note:

- No data available on average fares or service-km.

Figure C.19 Rotorua boardings per capita, real fares and service-km index

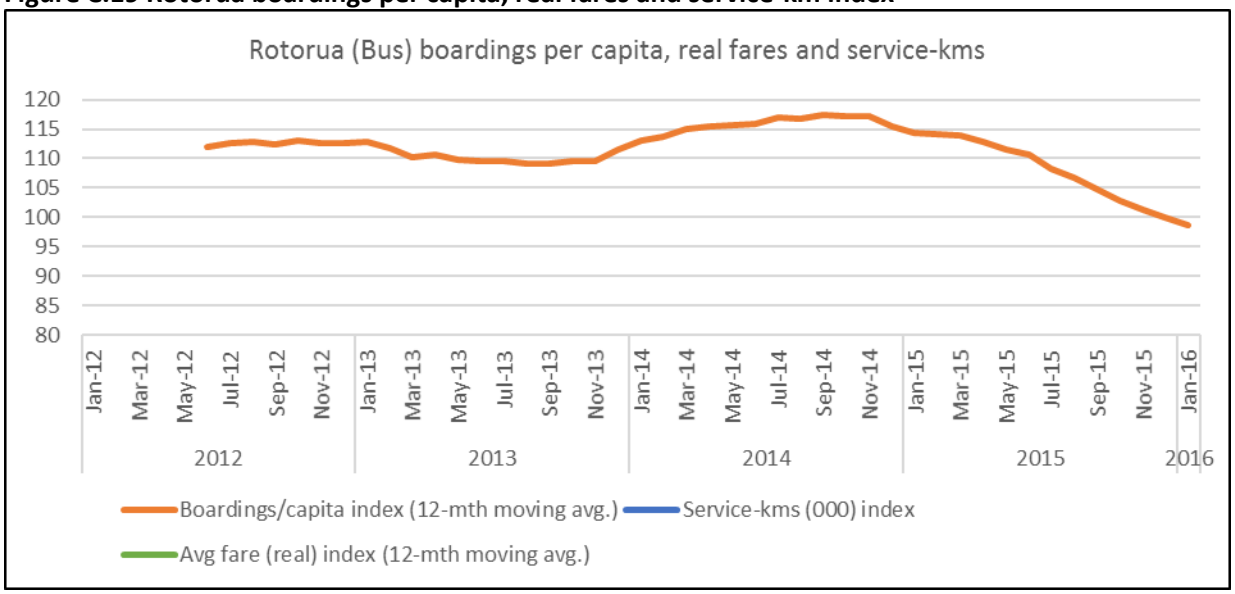
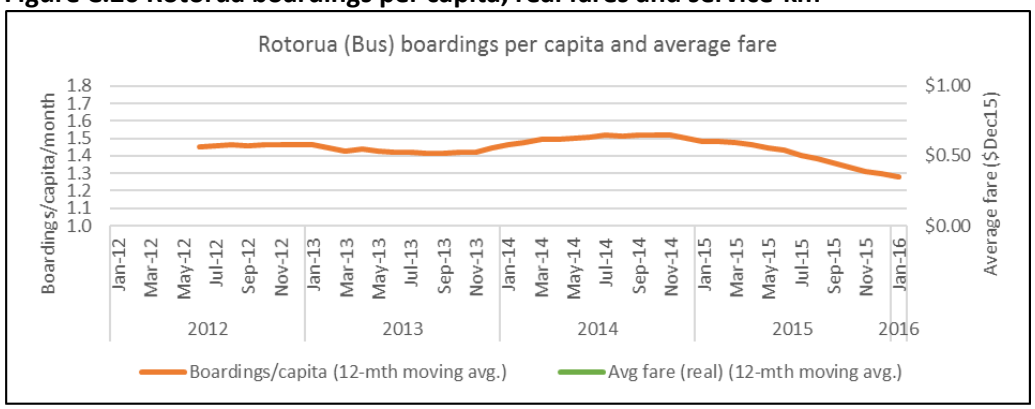
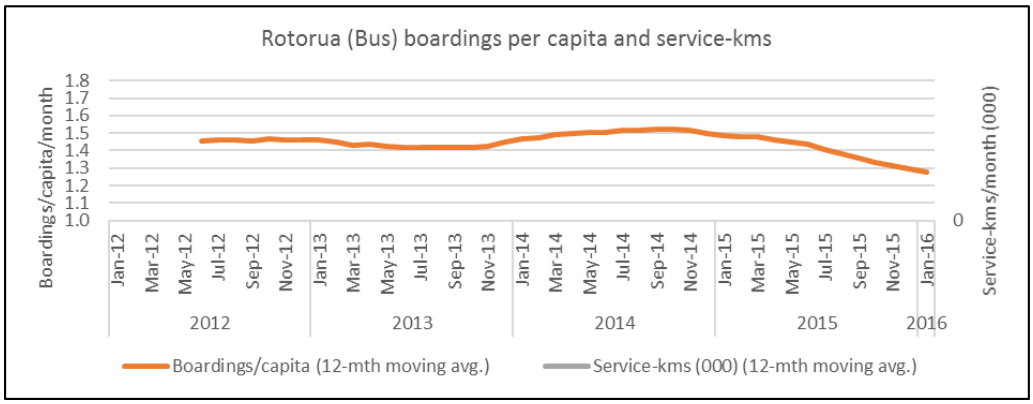


Figure C.20 Rotorua boardings per capita, real fares and service-km





C.11. Whangarei

Whangarei boardings/capita, average fare and service-km are shown below. Key points to note:

- Boardings per capita increase in 2014 following what appears to be a fare reduction in Aug-13 but then returned to the same level of boardings per capita as 2012.

Figure C.21 Whangarei boardings per capita, real fares and service-km index

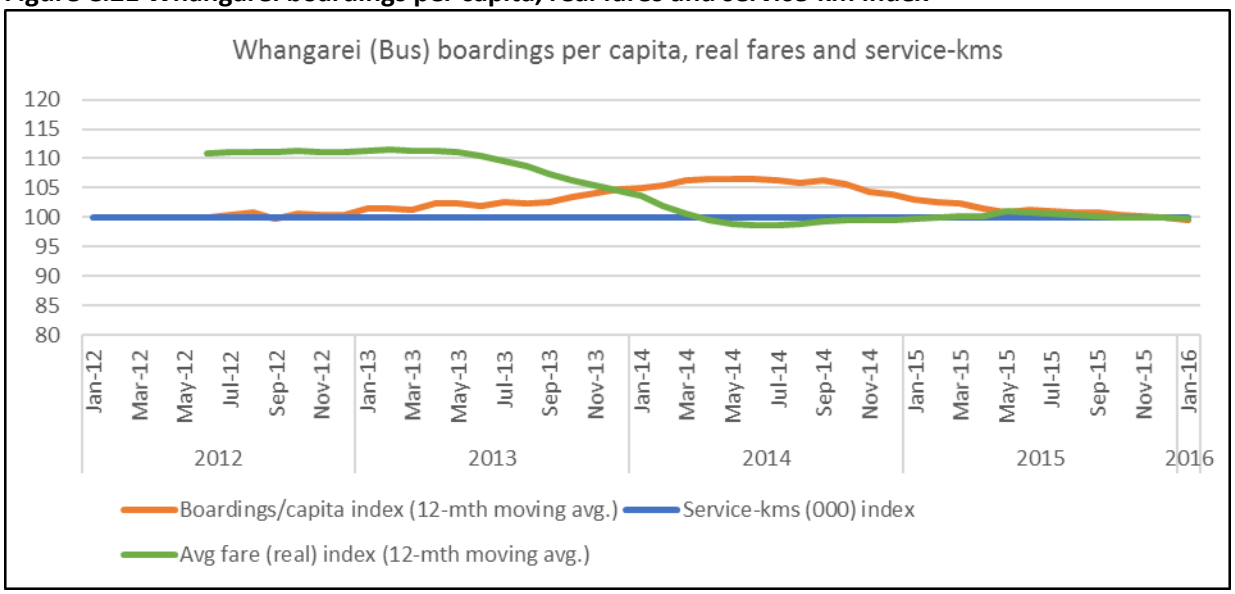
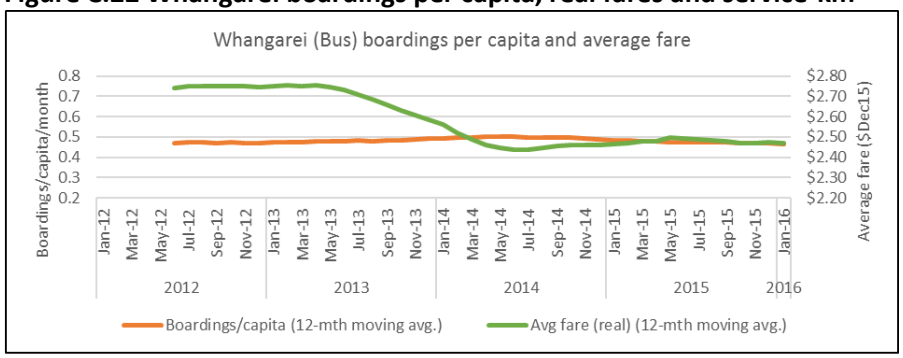
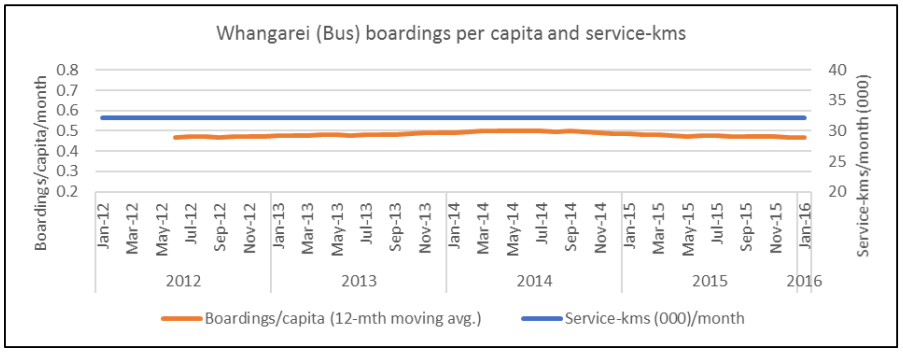


Figure C.22 Whangarei boardings per capita, real fares and service-km





C.12. Gisborne

Gisborne boardings/capita, average fare and service-km are shown below. Key points to note:

- The service-km index indicates a significant reduction in service-km (off a very low base), which appears to have contributed to a reduction in boardings per capita from early 2014.
- The number of boardings per capacity appears to be improving in the later part of the 2015 calendar year, possible supported by a reduction in average fares.

Figure C.23 Gisborne boardings per capita, real fares and service-km index

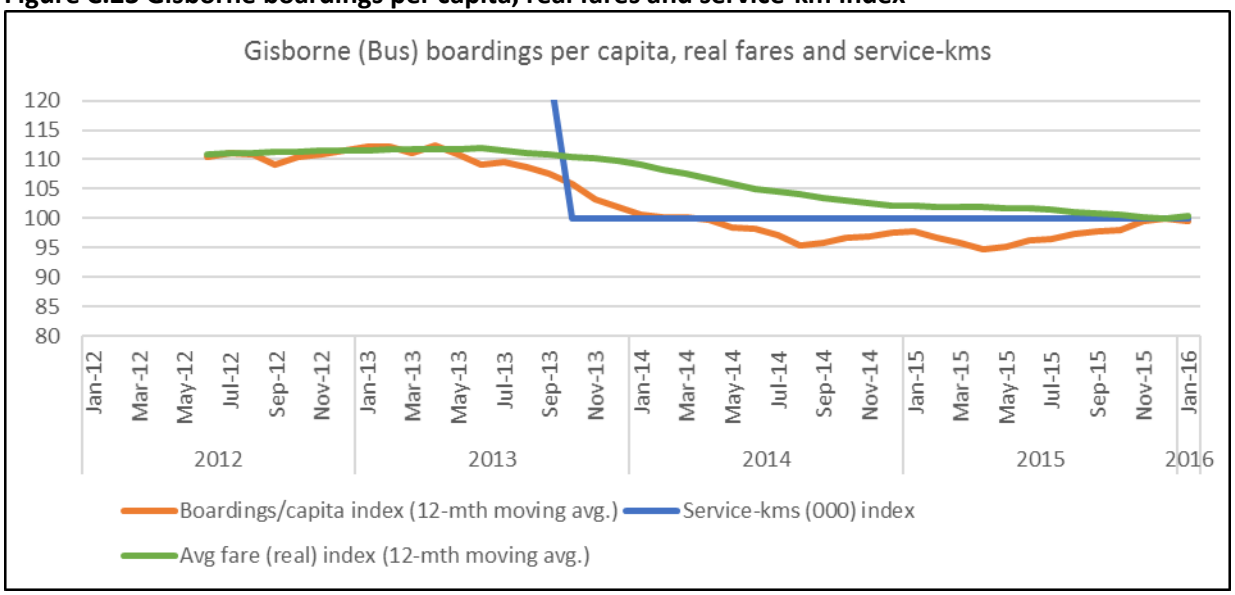
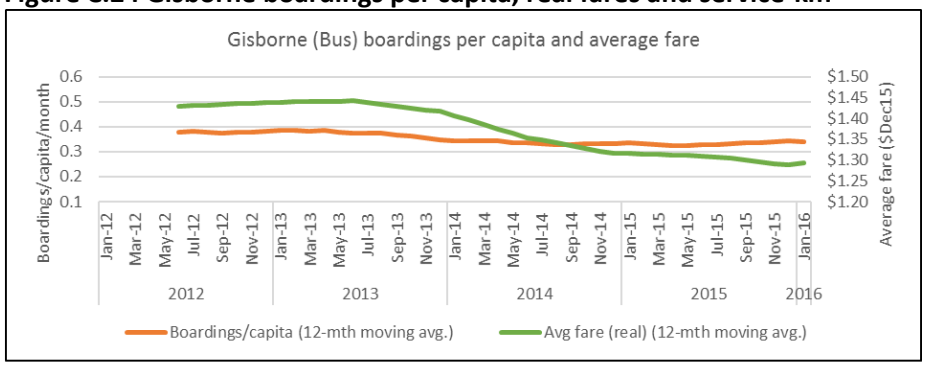
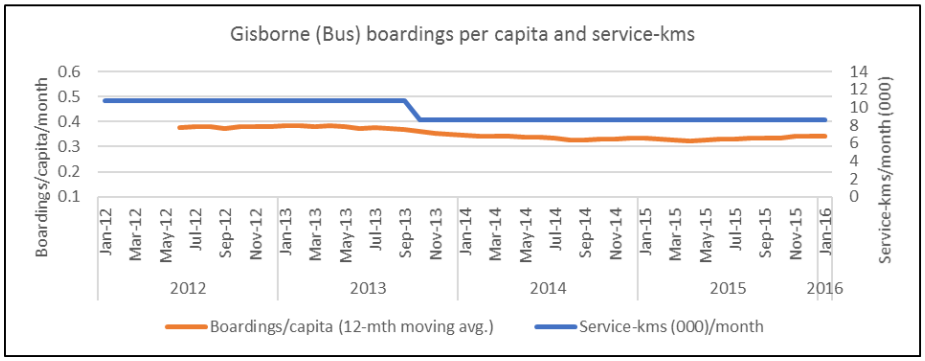


Figure C.24 Gisborne boardings per capita, real fares and service-km





C.13. Blenheim

Blenheim boardings/capita, average fare and service-km are shown below.

Figure C.25 Blenheim boardings per capita, real fares and service-km index

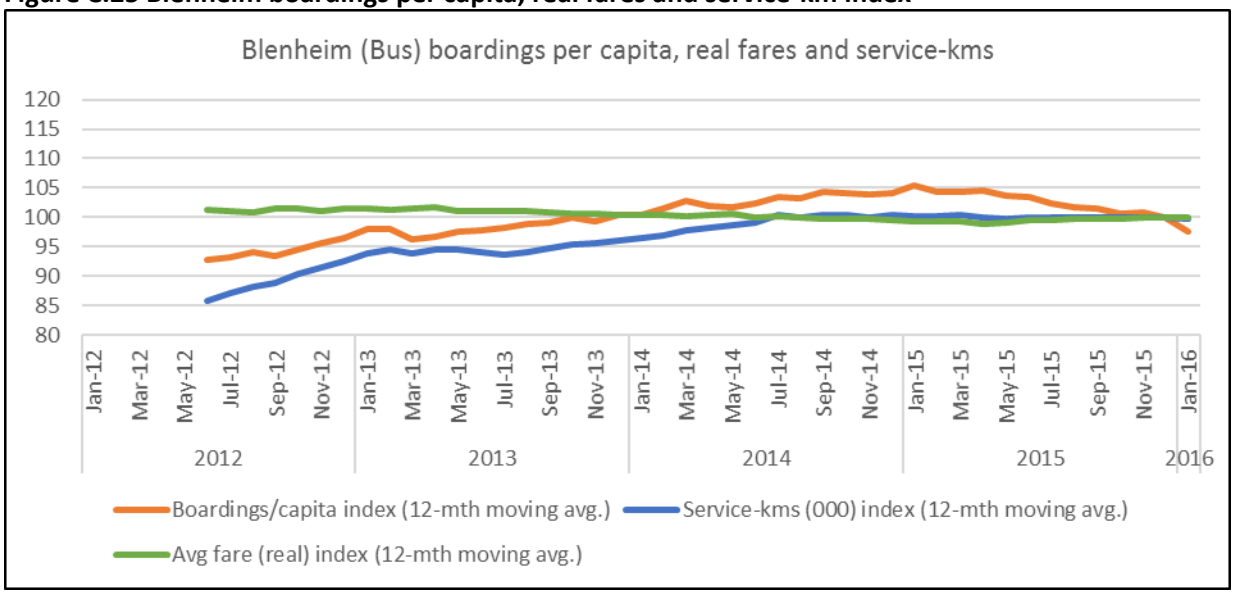
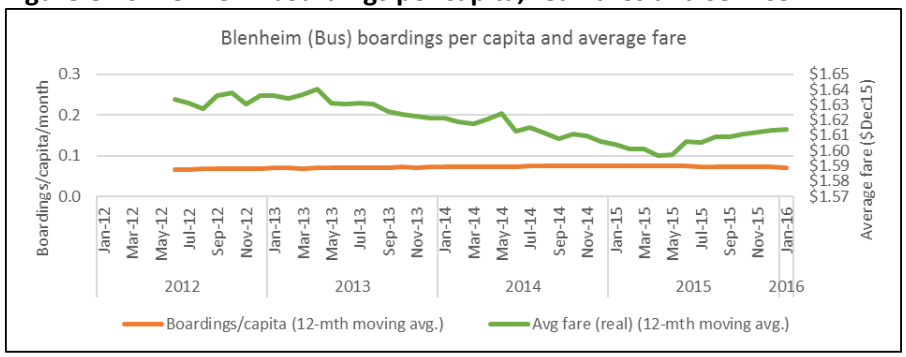
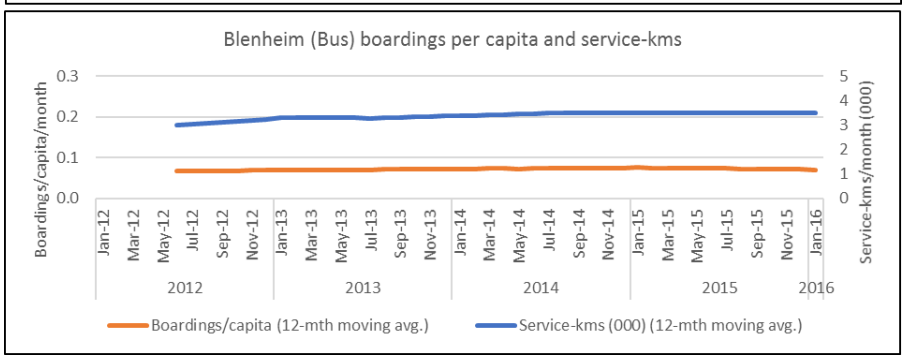


Figure C.26 Blenheim boardings per capita, real fares and service-km





C.14. Timaru

Timaru boardings/capita, average fare and service-km are shown below.

Figure C.27 Timaru boardings per capita, real fares and service-km index

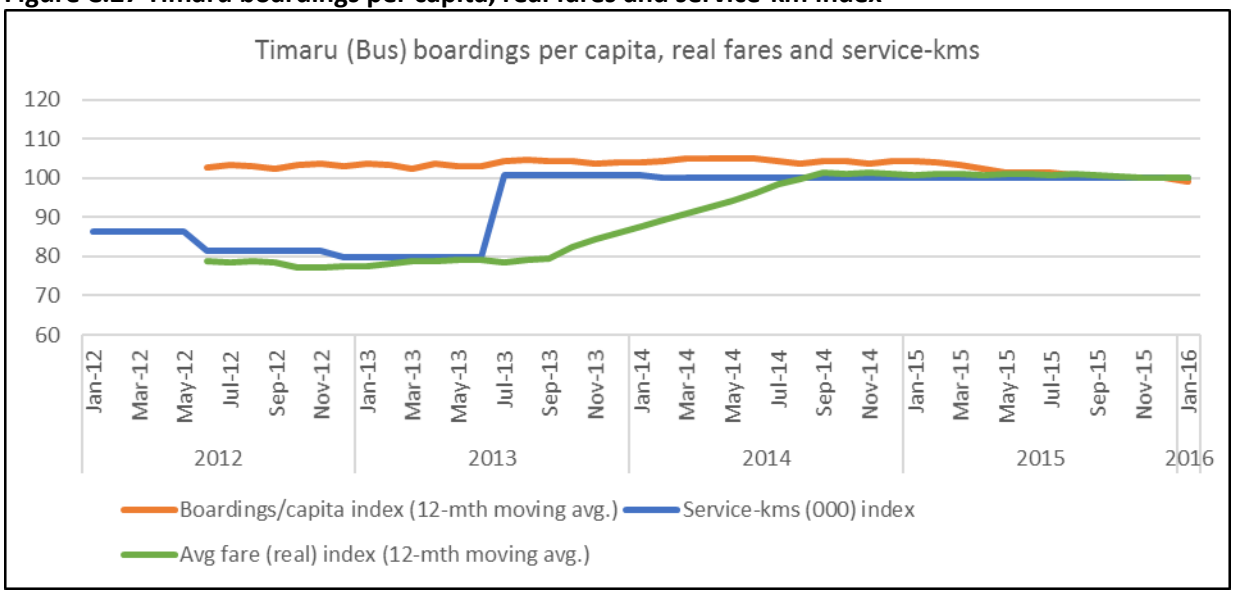
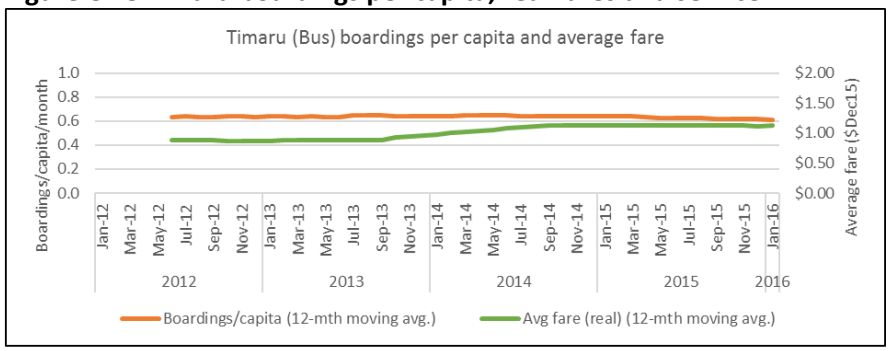
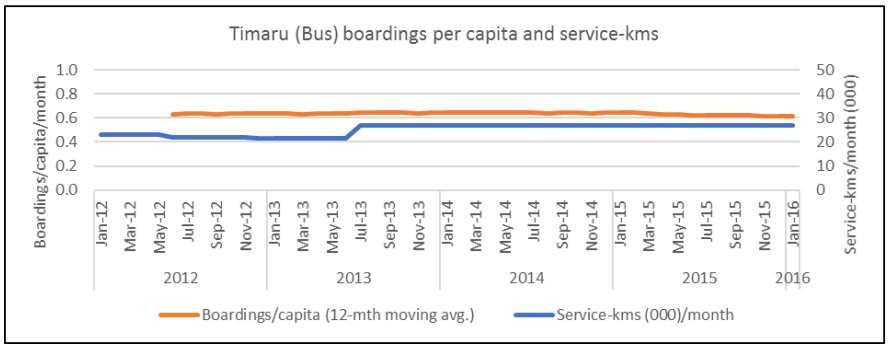


Figure C.28 Timaru boardings per capita, real fares and service-km





C.15. Taupo

Taupo boardings/capita, average fare and service-km are shown below. Key points to note:

- There are some peculiarities with the Taupo data, for example the service increase in Jul-13 appears to have failed to meet the needs of users at it resulted in a reduction in boardings per capita.
- We suspect that there are issues with the data.

Figure C.29 Taupo boardings per capita, real fares and service-km index

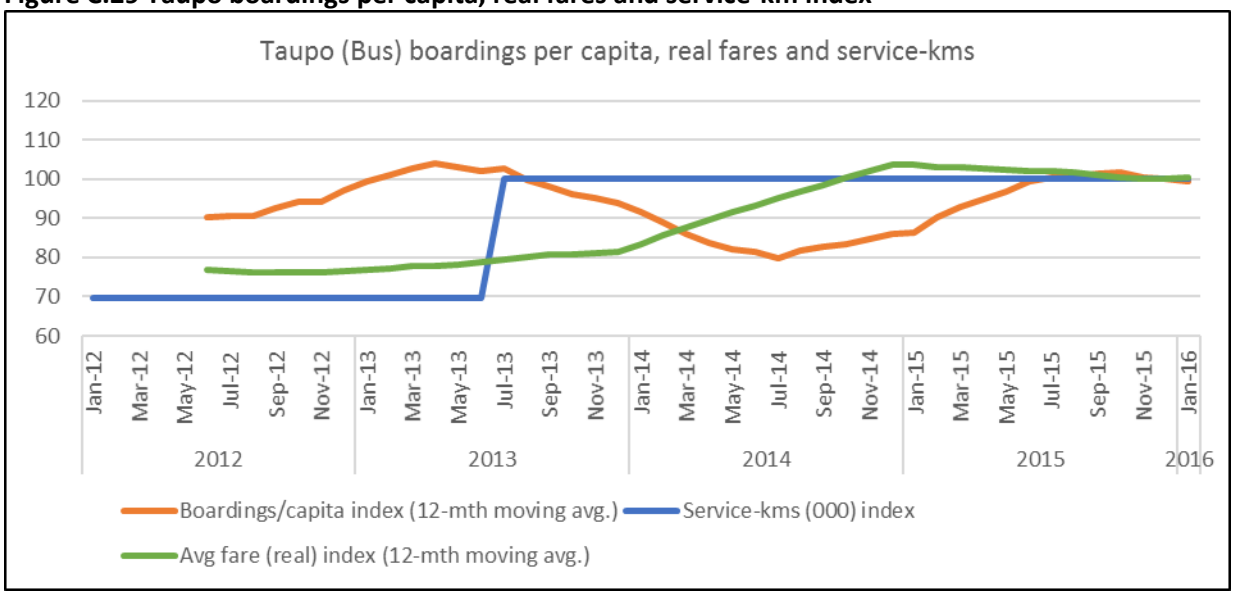
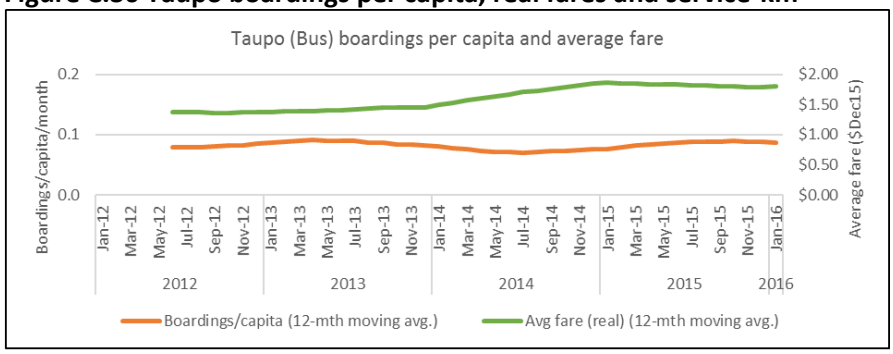
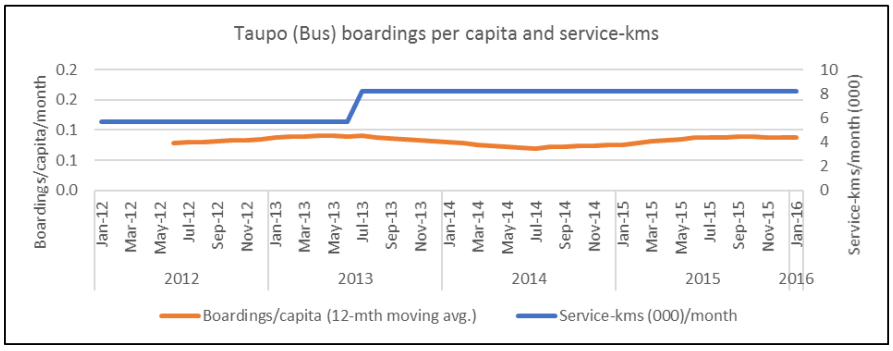


Figure C.30 Taupo boardings per capita, real fares and service-km





C.16. Wakatipu Basin

Wakatipu Basin boardings/capita, average fare and service-km are shown below. Key points to note:

- Service-kms data was provided by financial year, but this was not broken down between Dunedin and Wakatipu Basin for the first year (2011/12) and did not identify the month of any service changes. It was therefore not possible to calculate the change in service-kms for the period of analysis with any degree of accuracy.

Figure C.31 Wakatipu Basin boardings per capita, real fares and service-km index

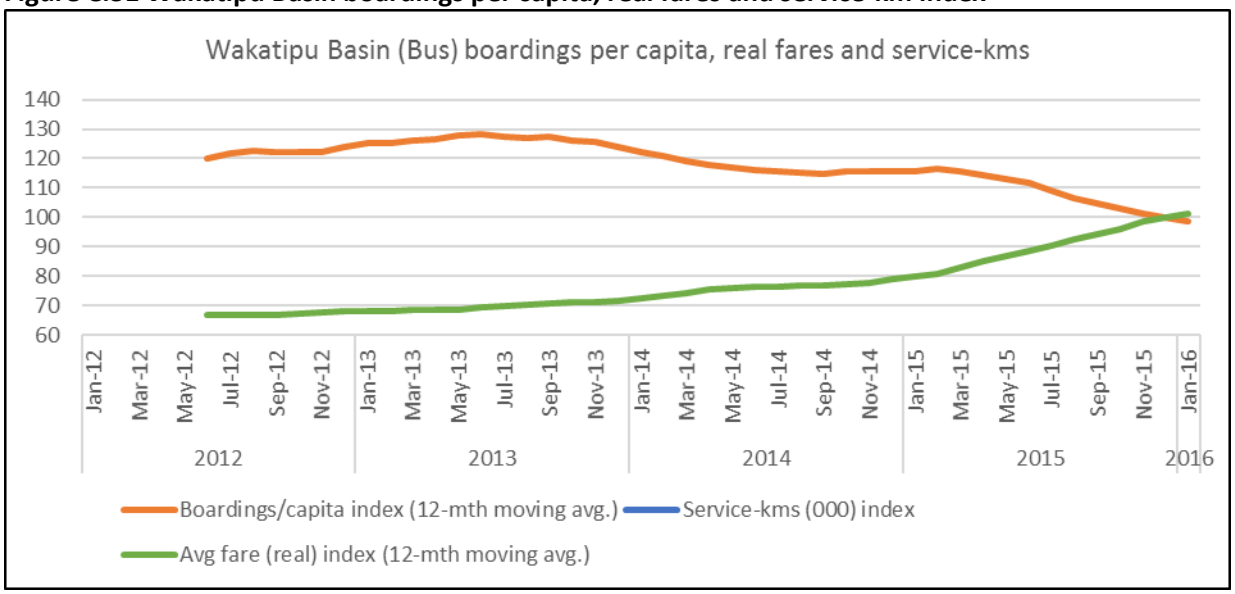
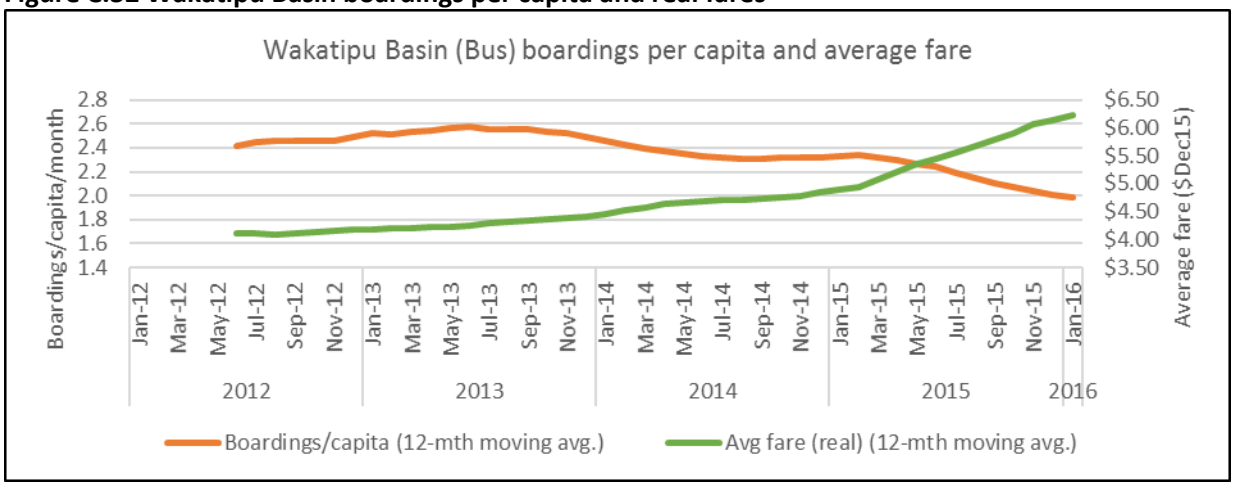


Figure C.32 Wakatipu Basin boardings per capita and real fares



C.17. Auckland (bus)

Auckland (bus) boardings/capita, average fare and service-km are shown below. Key points to note:

- The data provided by Auckland was not able to be used to calculate average fare and service-km for the analysis period.

Figure C.33 Auckland (bus) boardings per capita, real fares and service-km index

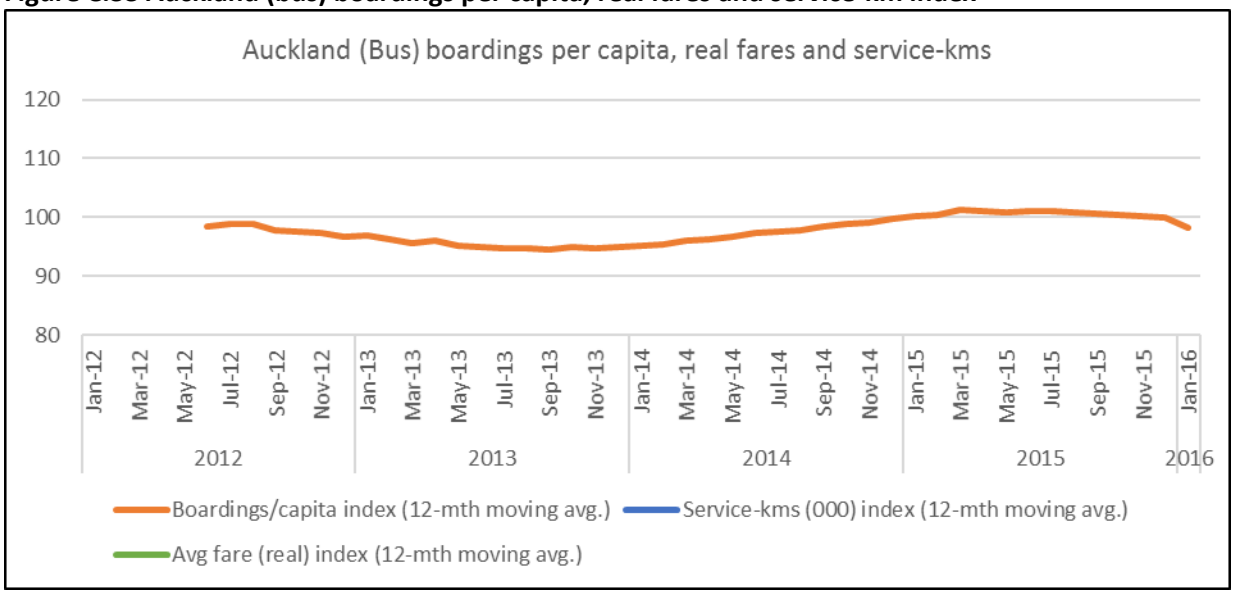
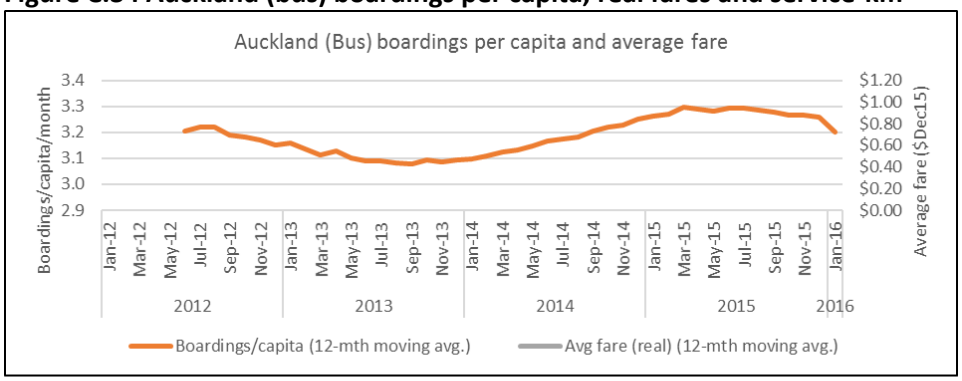
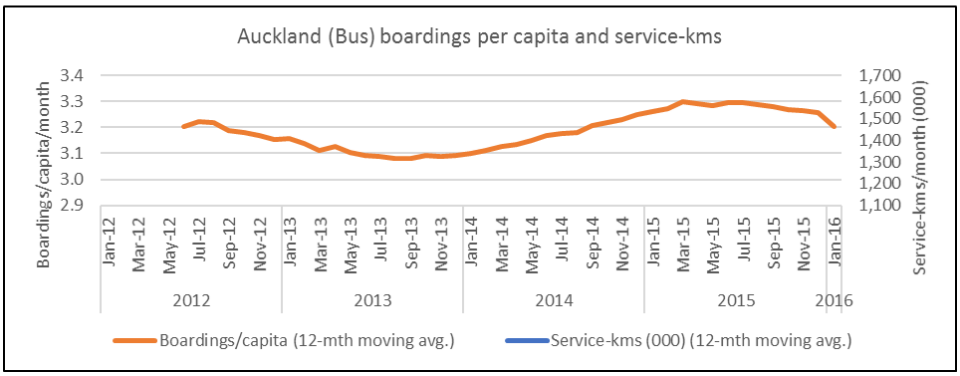


Figure C.34 Auckland (bus) boardings per capita, real fares and service-km





C.18. Adelaide

Adelaide (bus) boardings/capita, average fare and service-km are shown below. Refer discussion following the charts.

Figure C.35 Adelaide (bus) boardings per capita, real fares and service-km index

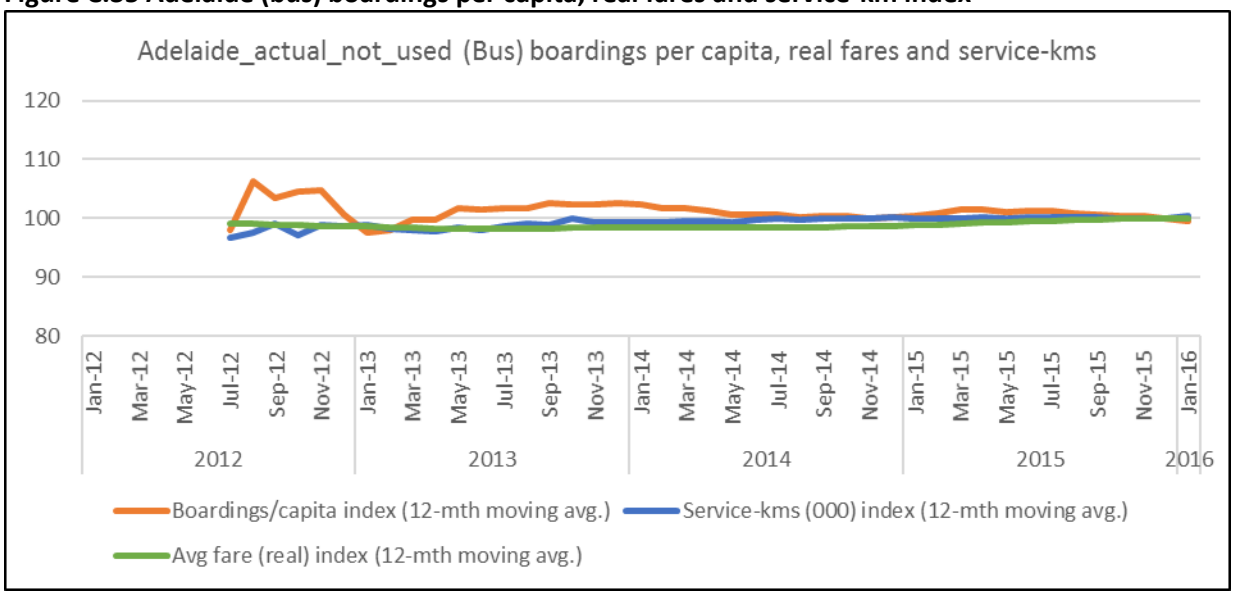
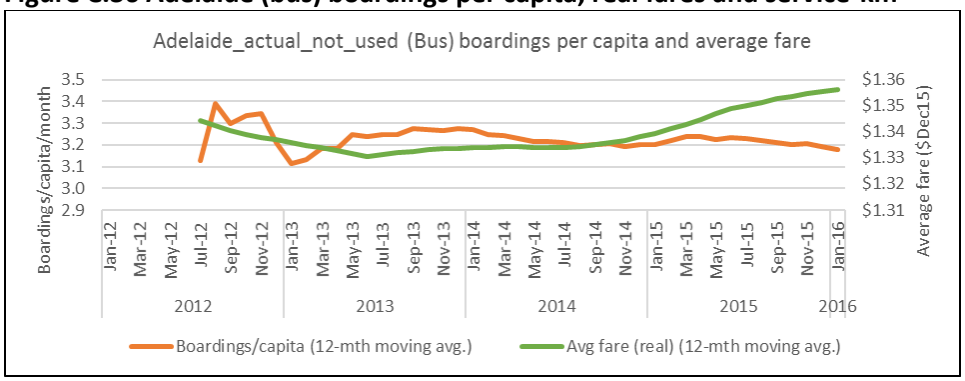
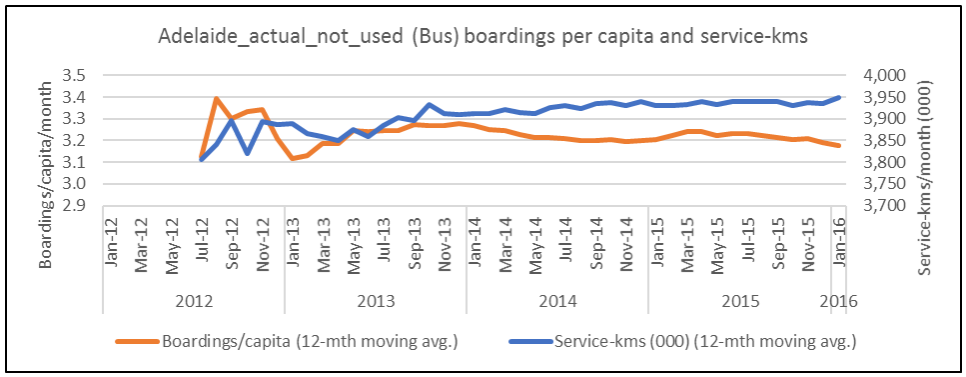


Figure C.36 Adelaide (bus) boardings per capita, real fares and service-km





Overview of patronage trends (all modes) for the period July 12 to Feb 16 is as follows:

- In the second half of 2012, total patronage was steady at about 61.5-62.0 Mpa (5.1-5.2 M/mth).
- Rail patronage was steady at around 0.90-0.95 M/mth until Dec 12, then dropped to 0.7-0.8 M/mth until Feb 14, then jumped to about 1.1 M/mth from Mar 14.
- Tram patronage was steady at around 0.22 M/mth until June 14, then jumped from July 14 up to 0.75-0.80 M/mth.

- Bus patronage was steady at 4.0-4.5 M/mth up to Dec 13; there was then some apparent loss (0.10-0.15 M/mth) corresponding with the initial rail increase (Jan 14), but no apparent effect of the tram increase (July 14).
- In the second half of 2015 (and up to Feb 2016), total patronage was running at about 74.5-75.0 Mpa (6.20-6.25 M/mth). Compared with the second half of 2012, this level represents an increase of some 13.0 Mpa, or about 21%. This would generally be considered as a good result, over the three-year period (noting that the population increase over this period has been very modest, at around 1.0% pa [check?].
- Of interest is the apparently very modest decrease in bus patronage relative to the increases in rail and tram patronage. Resulting from the changes in the rail and tram modes, our best estimates are that rail patronage increased by 0.20-0.25 M/mth and tram patronage by 0.53-0.58 M/mth, but bus patronage fell by only 0.10-0.15 M/mth.
- The most recent period (since the effects of the rail and tram changes have stabilised) indicates some marginal decline in total patronage: for the 7 months to Feb 16, on average patronage has declined by 0.7% when compared with the same period 12 months earlier.
- Our assessment is that bus patronage has been affected by the rail changes, but not significantly by the tram changes. On this basis, the bus patronage data since June 14 is seen as being essentially unaffected by the changes to rail and tram services. It would therefore appear appropriate to compare Adelaide's bus patronage trends for the months June 15 – Feb 16 with the corresponding patronage 12 months earlier. This comparison shows a bus patronage decline of 0.8%pa average (prior to any adjustments for population, fares and other factors). It would not be helpful to attempt to assess trends in bus patronage prior to June 14.

C.19. Perth (bus)

Perth (bus) boardings/capita, average fare and service-km are shown below.

Figure C.37 Perth (bus) boardings per capita, real fares and service-km index

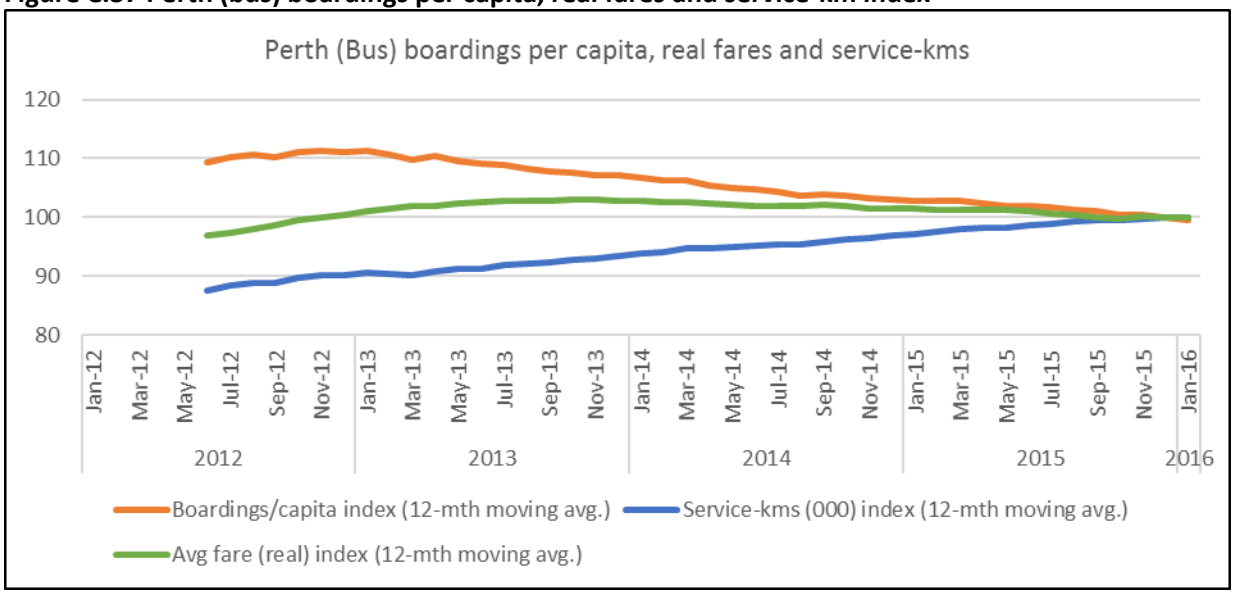
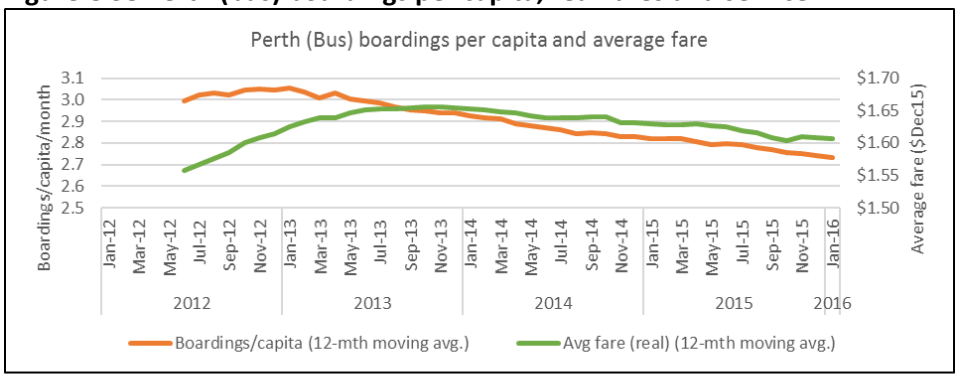
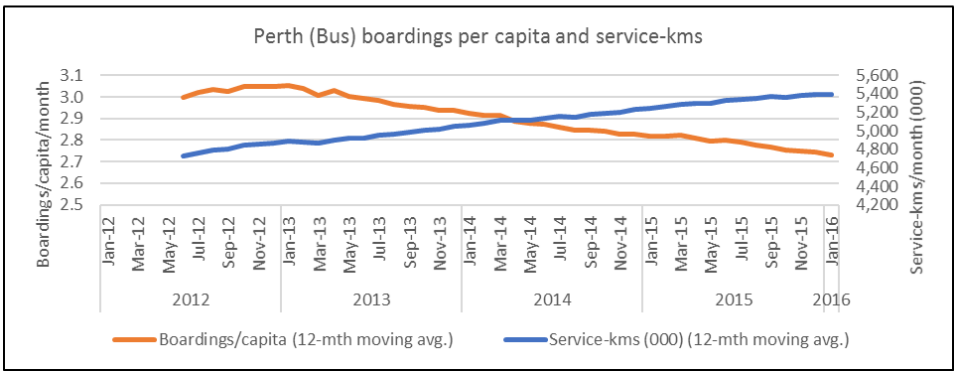


Figure C.38 Perth (bus) boardings per capita, real fares and service-km





Appendix D Supplementary data and charts

D.1. Population estimates

Population estimates were obtained from Statistics NZ annul estimates (for 30-Jun each year) by census area unit for the service areas identified in D.6. .

Figure D.1 Average annual change in population by public transport service area

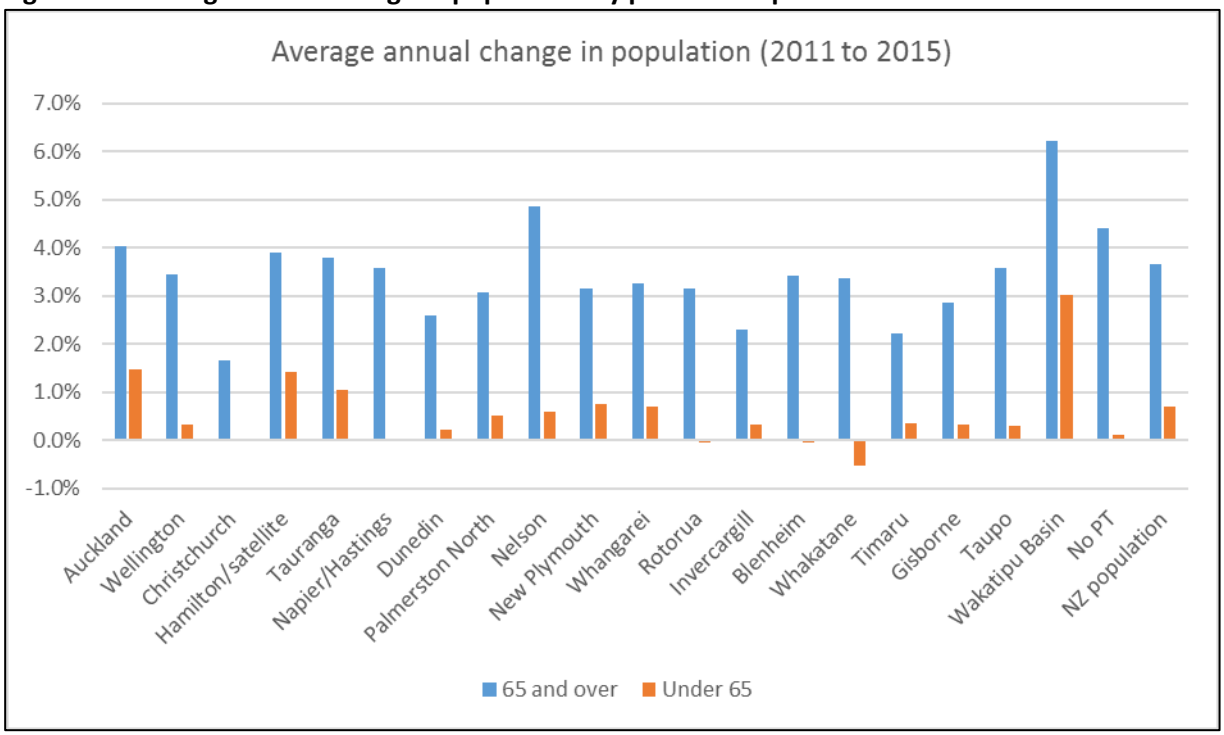


Table D.1 Total population by service area

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Auckland	1,280,540	1,296,800	1,310,225	1,325,425	1,341,640	1,359,610	1,375,090	1,390,440	1,422,170	1,462,765
Wellington	462,490	465,620	468,195	471,720	475,595	479,295	481,270	482,790	487,610	493,240
Christchurch	408,315	414,020	419,030	423,675	429,105	416,595	411,385	415,380	424,150	434,265
Hamilton/satellite	211,675	215,135	217,920	221,235	224,770	228,365	231,465	235,115	239,750	245,080
Napier/Hastings	121,205	122,130	122,690	123,625	124,970	125,845	126,460	127,140	128,140	128,935
Tauranga	107,670	109,985	111,830	114,065	116,000	117,910	118,915	120,435	122,365	125,360
Dunedin	117,600	117,185	116,985	117,100	117,350	117,955	118,400	118,310	119,390	120,730
Palmerston North	95,405	95,470	95,630	96,345	97,195	97,830	98,510	98,865	100,055	101,450
New Plymouth	59,275	59,800	60,215	60,900	61,865	62,515	63,125	63,930	64,885	65,530
Nelson	55,275	55,910	56,480	57,135	57,935	59,145	59,835	60,500	61,210	61,915
Rotorua	55,590	55,390	55,410	55,480	55,735	55,970	55,840	55,795	56,240	56,825
Whangarei	50,490	50,990	51,335	51,690	52,295	52,625	53,040	53,590	54,325	55,355
Invercargill	47,920	47,955	47,910	48,320	48,710	49,275	49,305	49,275	49,840	50,255
Gisborne	33,620	33,710	33,815	34,110	34,475	34,640	34,835	35,225	35,355	35,665
Whakatane	34,060	33,885	33,770	33,650	33,620	33,410	33,295	33,180	33,500	33,825
Blenheim	29,085	29,300	29,445	29,665	29,695	29,810	29,890	30,085	30,260	30,635
Timaru	27,475	27,540	27,480	27,475	27,530	27,665	27,780	27,995	28,375	28,545
Taupo	22,145	22,290	22,350	22,490	22,710	22,880	23,000	23,010	23,425	23,700
Wakatipu Basin	15,605	16,145	16,520	16,820	17,180	17,575	17,880	18,635	19,175	20,195
No PT	948,065	954,730	962,570	971,660	982,065	993,935	998,615	1,001,850	1,009,645	1,021,745
Grand Total	**4,183,505**	**4,223,990**	**4,259,805**	**4,302,585**	**4,350,440**	**4,382,850**	**4,407,935**	**4,441,545**	**4,509,865**	**4,596,015**

Table D.2 Annual change in total population by public transport service area

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Auckland	1.3%	1.0%	1.2%	1.2%	1.3%	1.1%	1.1%	2.3%	2.9%
Wellington	0.7%	0.6%	0.8%	0.8%	0.8%	0.4%	0.3%	1.0%	1.2%
Christchurch	1.4%	1.2%	1.1%	1.3%	-2.9%	-1.3%	1.0%	2.1%	2.4%
Hamilton/satellite	1.6%	1.3%	1.5%	1.6%	1.6%	1.4%	1.6%	2.0%	2.2%
Napier/Hastings	0.8%	0.5%	0.8%	1.1%	0.7%	0.5%	0.5%	0.8%	0.6%
Tauranga	2.2%	1.7%	2.0%	1.7%	1.6%	0.9%	1.3%	1.6%	2.4%
Dunedin	-0.4%	-0.2%	0.1%	0.2%	0.5%	0.4%	-0.1%	0.9%	1.1%
Palmerston North	0.1%	0.2%	0.7%	0.9%	0.7%	0.7%	0.4%	1.2%	1.4%
New Plymouth	0.9%	0.7%	1.1%	1.6%	1.1%	1.0%	1.3%	1.5%	1.0%
Nelson	1.1%	1.0%	1.2%	1.4%	2.1%	1.2%	1.1%	1.2%	1.2%
Rotorua	-0.4%	0.0%	0.1%	0.5%	0.4%	-0.2%	-0.1%	0.8%	1.0%
Whangarei	1.0%	0.7%	0.7%	1.2%	0.6%	0.8%	1.0%	1.4%	1.9%
Invercargill	0.1%	-0.1%	0.9%	0.8%	1.2%	0.1%	-0.1%	1.1%	0.8%
Gisborne	0.3%	0.3%	0.9%	1.1%	0.5%	0.6%	1.1%	0.4%	0.9%
Whakatane	-0.5%	-0.3%	-0.4%	-0.1%	-0.6%	-0.3%	-0.3%	1.0%	1.0%
Blenheim	0.7%	0.5%	0.7%	0.1%	0.4%	0.3%	0.7%	0.6%	1.2%
Timaru	0.2%	-0.2%	0.0%	0.2%	0.5%	0.4%	0.8%	1.4%	0.6%
Taupo	0.7%	0.3%	0.6%	1.0%	0.7%	0.5%	0.0%	1.8%	1.2%
Wakatipu Basin	3.5%	2.3%	1.8%	2.1%	2.3%	1.7%	4.2%	2.9%	5.3%
No PT	0.7%	0.8%	0.9%	1.1%	1.2%	0.5%	0.3%	0.8%	1.2%
NZ population	**1.0%**	**0.8%**	**1.0%**	**1.1%**	**0.7%**	**0.6%**	**0.8%**	**1.5%**	**1.9%**

D.2. CPI

The Statistics NZ Consumers Price Index was used to adjusted prices (fares and fuel prices) to real dollars ($Dec15). The “All Groups for New Zealand, seasonally adjusted (Quarterly Mar/Jun/Sep/Dec)” data series was used and interpolated to determine monthly adjustment factors. A linear forecast was used to estimate the CPI for Jan-16 as this data was not available when the analysis was being undertaken.

The estimate ABS CPI was used for Adelaide and Perth (Index Numbers; All groups CPI) but using the original and not seasonally adjusted data.

The following CPI factors were used for the calendar year estimates.

Annual CPI changes		CPI (seasonally adjusted)			CPI factor to year 2015		
		NZ	Perth	Adelaide	NZ	Perth	Adelaide
1/01/2012	31/12/2012	1167	100.8	100.8	1.027	1.059	1.069
1/01/2013	31/12/2013	1180	103.0	103.4	1.016	1.037	1.042
1/01/2014	31/12/2014	1195	105.5	106.3	1.003	1.012	1.014
1/01/2015	31/12/2015	1199	106.8	107.8	1.000	1.000	1.000

D.3. Fuel prices

Fuel prices were taken from "FUEL - MBIE Weekly oil price monitoring weekly_table.xlsx" downloaded from http://www.aaa.asn.au/aaa-agenda/affordability/latest-fuel-prices/. The “Petrol_discounted_retail_price_NZc.p.l” series was used, with prices adjusted to real$Dec16 using the NZ CPI index above.

D.4. Car ownership

TABLE C.3: NZ Car Ownership Statistics 2011 - 2015				
Calendar Year	**NZ population 000 (annual average)**	**NZ licensed cars 000 (annual average)**	**Cars per person (annual average)**	**Annual change % pa**
2011	4367	2337	0.535	
2012	4395	2351	0.535	-0.1%
2013	4425	2383	0.539	+0.7%
2014	4476	2449	0.547	+1.6%
2015	4553	2532	0.556	+1.6%

Sources:

Population: Taken from Table C.1.

Cars: SNZ Motor Vehicles Currently Licensed by type – Cars (quarterly data). Table ref TPT007AA.

D.5. Elasticity assumptions

The following elasticities were used for the analysis.

Elasticities	Bus	Other
Real fare	-0.35	-0.35
Service-km	0.5	0.5
Petrol	0.15	0.25
Car operating costs	-0.5	-0.5

D.6. Service area definitions

The following service areas were estimated based on an analysis of the extend of each public transport network and appropriate Census 2013 area unit boundaries. All maps are shown at the same scale and are listed from North to South.

Figure D.2 Whangarei public transport service area

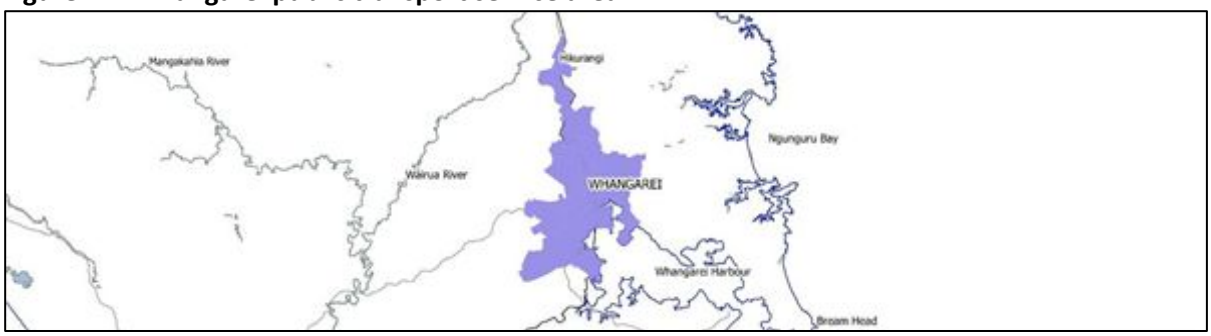


Figure D.3 Auckland public transport service area

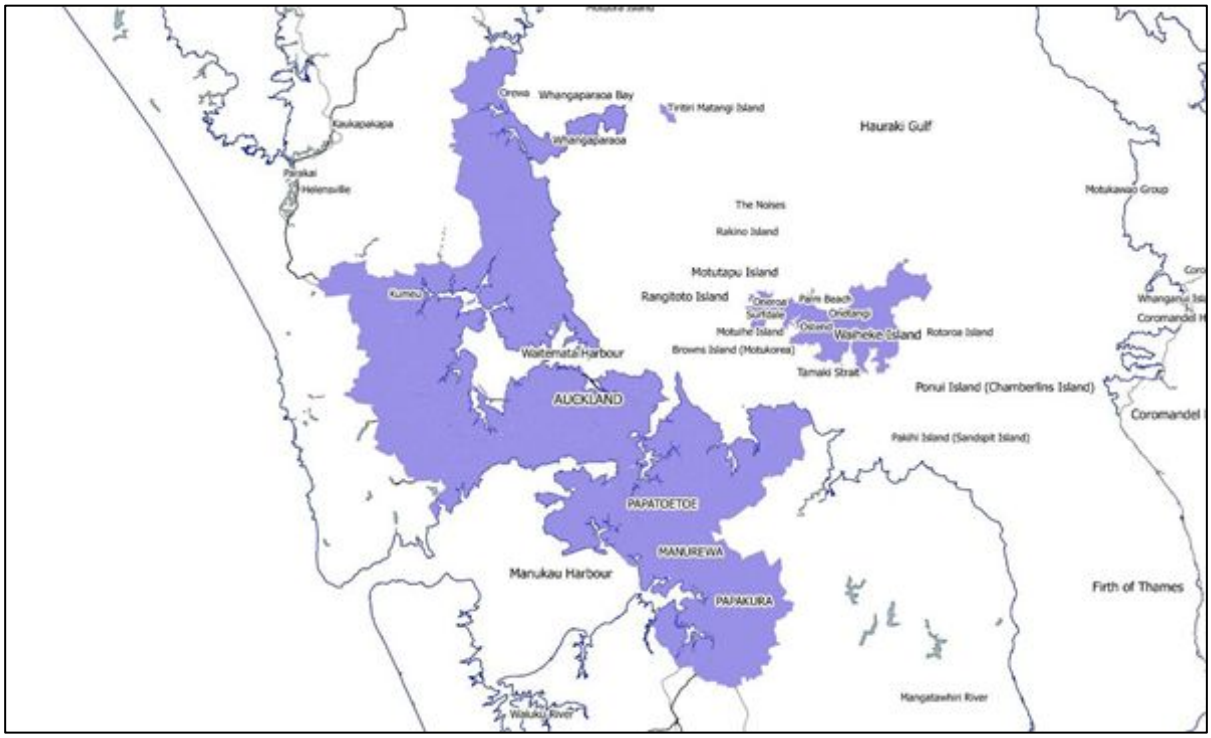


Figure D.4 Hamilton public transport service area

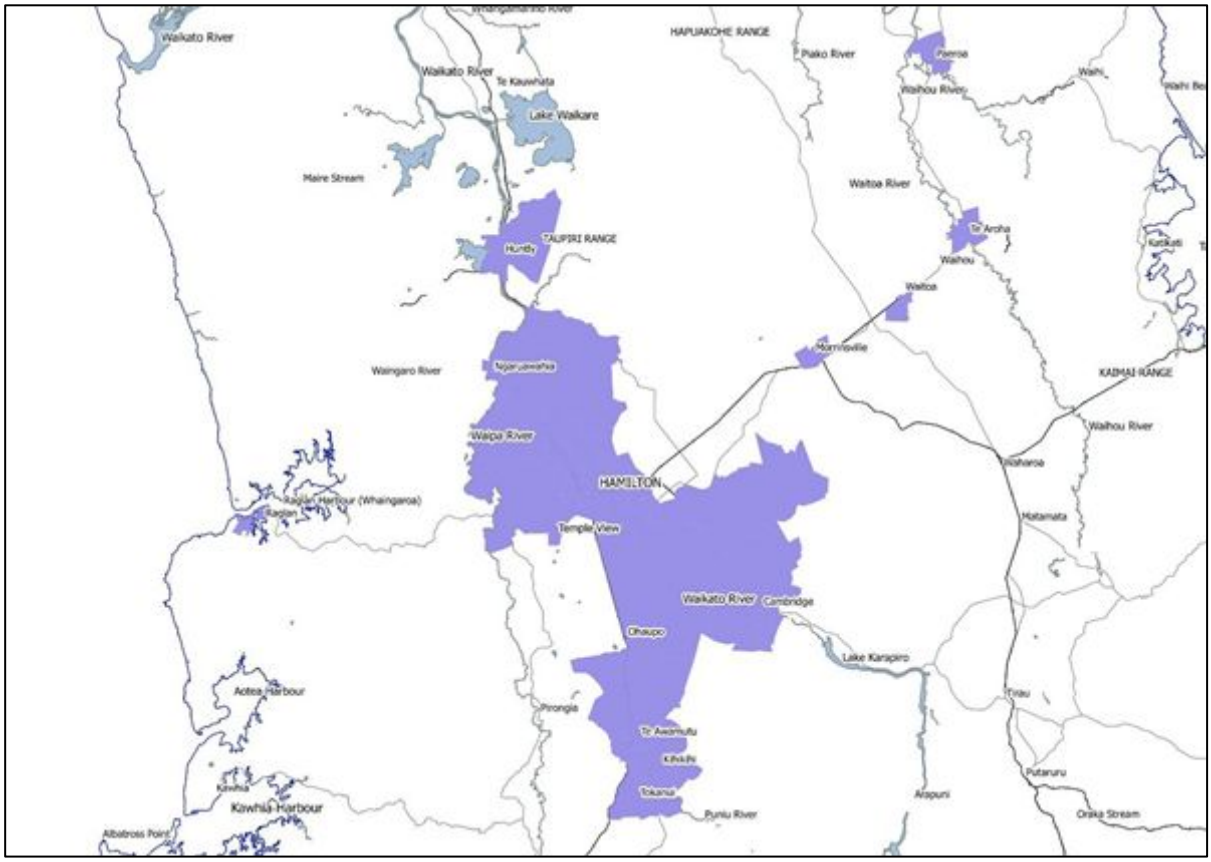


Figure D.5 Taupo public transport service area

Figure D.6 Tauranga public transport service area

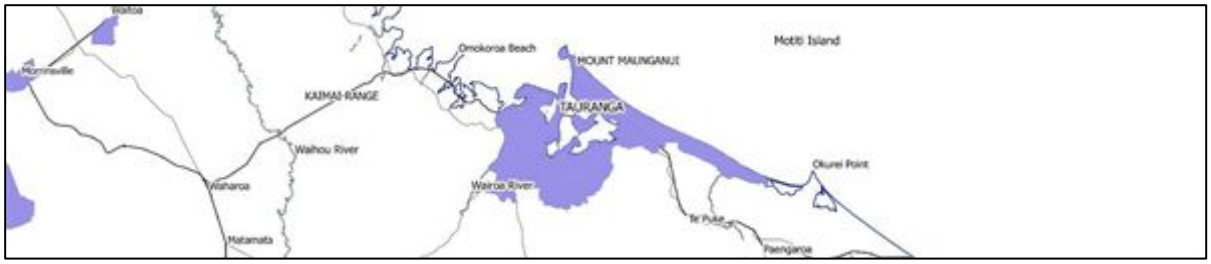


Figure D.7 Rotorua public transport service area

Figure D.8 Whakatane public transport service area

Figure D.9 New Plymouth public transport service area

Figure D.10 Whanganui public transport service area

Figure D.11 Palmerston North public transport service area

Figure D.12 Wellington public transport service area

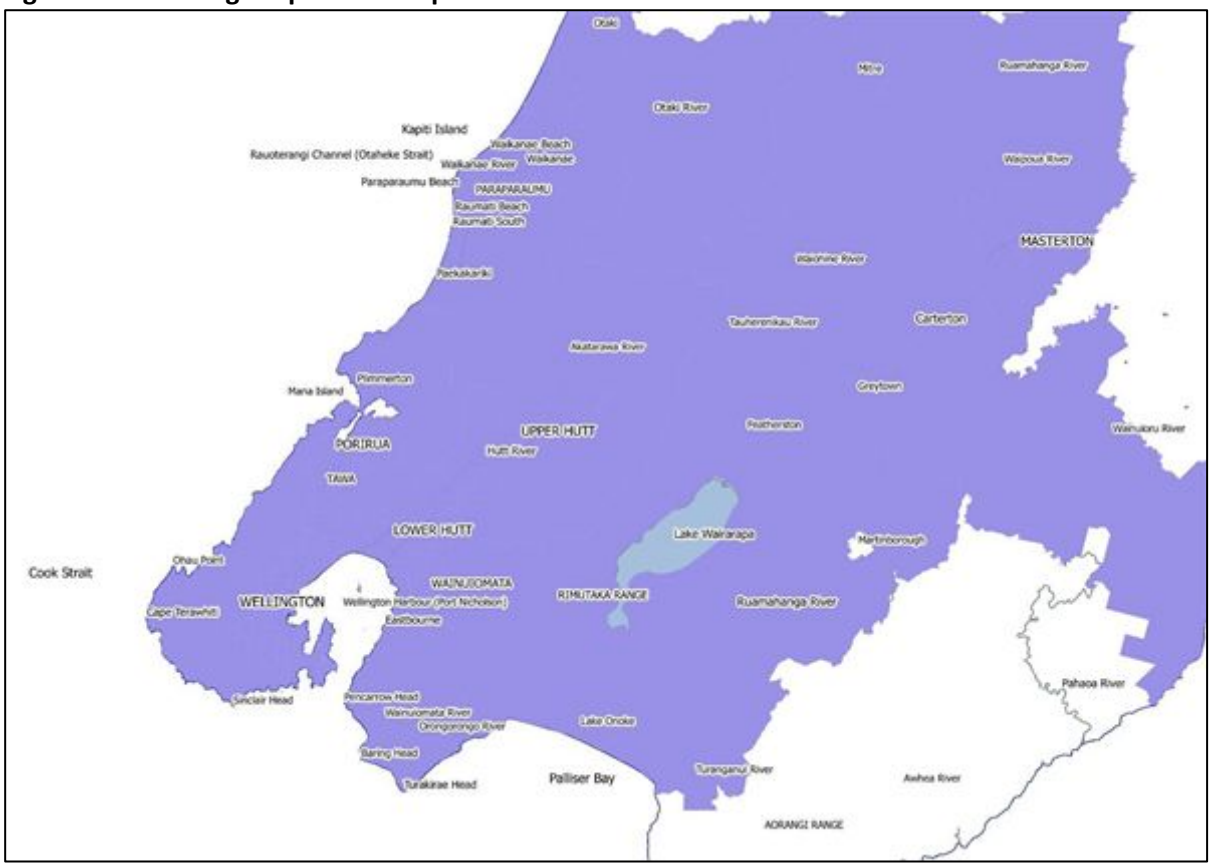


Figure D.13 Nelson public transport service area

Figure D.14 Blenheim public transport service area

Figure D.15 Christchurch public transport service area

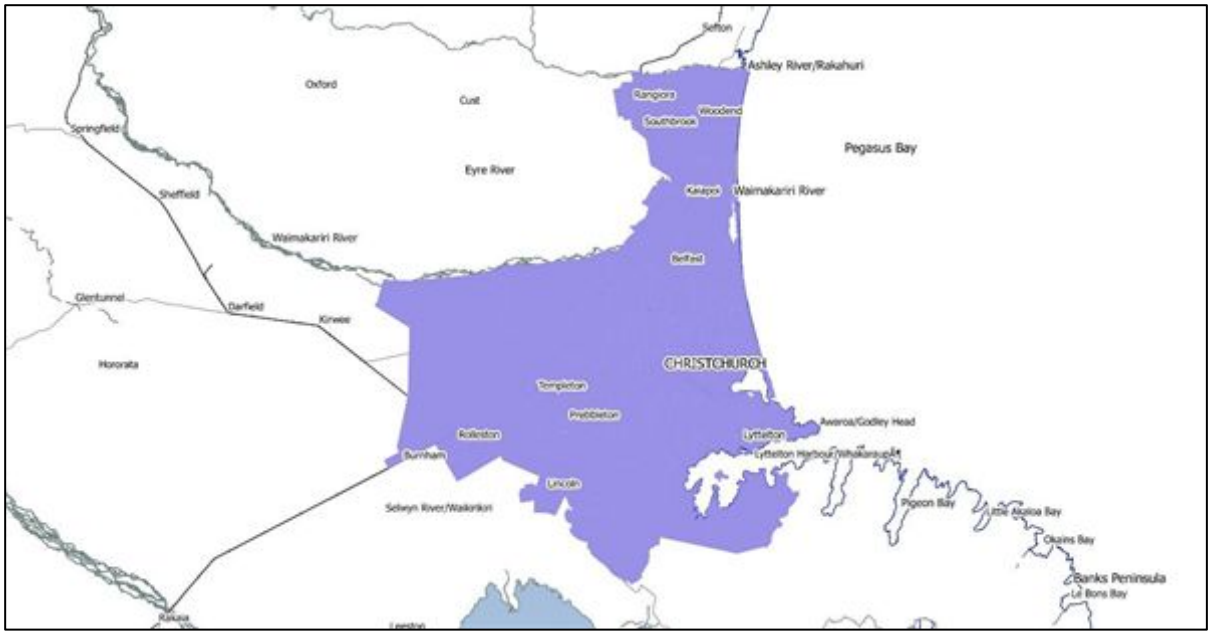


Figure D.16 Timaru public transport service area

Figure D.17 Dunedin public transport service area

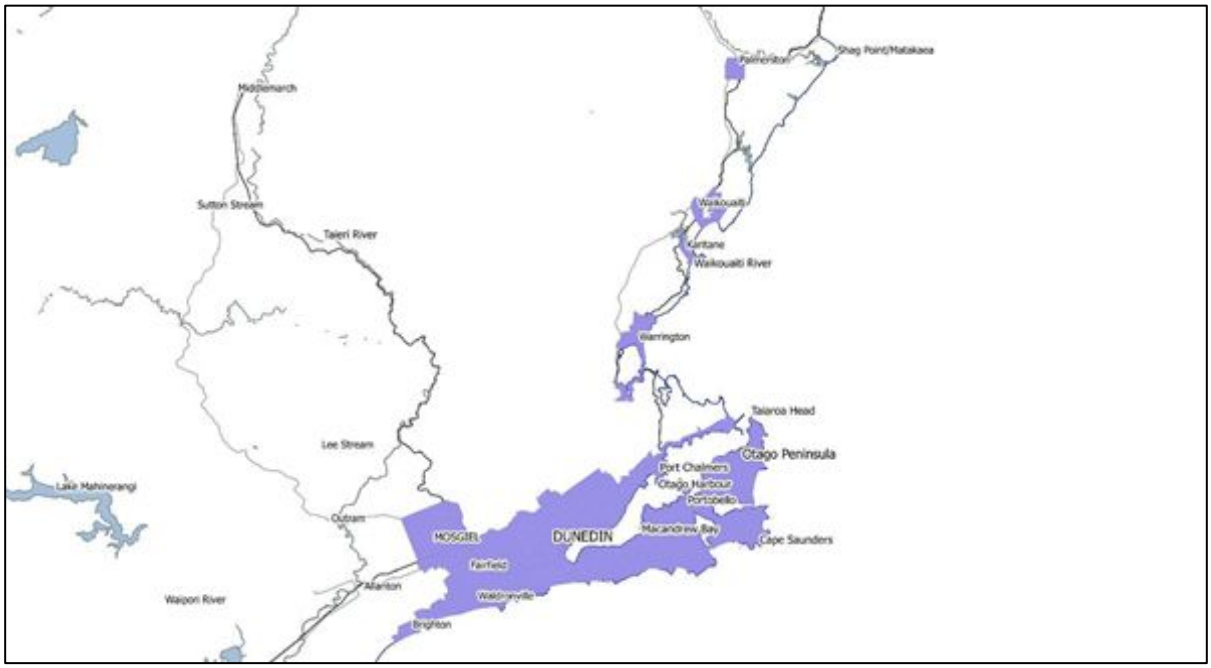


Figure D.18 Wakatipu Basin public transport service area

Figure D.19 Invercargill public transport service area

Agenda Memorandum

Date 7 September 2016

Memorandum to
Chairperson and Members
Regional Transport Committee

Subject: Correspondence and information items

Item: 9

Approved by: M J Nield, Director—Corporate Services

B G Chamberlain, Chief Executive

Document: 1736333

Purpose

The purpose of this item it to update Members on correspondence and information items received since their last meeting.

Recommendations

That the Taranaki Regional Council:

1. receives and notes the correspondence received from the New Zealand Transport Agency in response to queries raised at the previous Regional Transport Committee meeting on 1 June 2016.
2. notes for information purposes the correspondence sent to Apiculture New Zealand regarding the location of bee hives in relation to public pathways.

Responses to Members queries from 1 June 2016 meeting

Correspondence has been received from Raewyn Bleakley of the New Zealand Transport Agency in response to queries from Members at the 1 June 2016 Committee meeting. The two items were emailed out to Members directly, however they are attached here for completeness of information records.

Concerns about the location of beehives

Correspondence was sent to Apiculture New Zealand in regard to minimising potential risks to the public arising from the location of bee hives — particularly placement too close to roadways. This was in response to concerns raised at a full meeting of the Taranaki Regional Council, and is provided here for information purposes given its strong links to transport.

Decision-making considerations

Part 6 (Planning, decision-making and accountability) of the *Local Government Act 2002* has been considered and documented in the preparation of this agenda item. The recommendations made in this item comply with the decision-making obligations of the Act.

Financial considerations—LTP/Annual plan

This memorandum and the associated recommendations are consistent with the Council's adopted Long-Term Plan and estimates. Any financial information included in this memorandum has been prepared in accordance with generally accepted accounting practice.

Policy considerations

This memorandum and the associated recommendations are consistent with the policy documents and positions adopted by this Council under various legislative frameworks including, but not restricted to, the *Local Government Act 2002* and the *Land Transport Management Act 2003*.

Legal considerations

This memorandum and the associated recommendations comply with the appropriate statutory requirements imposed upon the Council.

Appendices/Attachments

Document 1728617:	Letter response from NZTA to RTC Chair August 2016 on matters raised at 1 June 2016 meeting
Document 1736486:	Email from Agency to RTC Chair on cost estimate for sealing SH43
Document 1691526:	Letter to Apiculture NZ on concerns about the location of beehives

27 May 2016
Document: 1691526

Apiculture New Zealand
PO Box 10792
Wellington 6143

Attention: Chief Executive Officer

Dear Mr Paul

Concerns about the location of bee hives

The Council writes in regard to minimising potential risks to the public arising from the location of bee hives, and to encourage your organisation to establish clear guidelines for apiarists that benefit your industry as well as the wider community.

At the 5 April 2016 meeting of the Taranaki Regional Council, concerns were raised about an apparent increase in bee activity along the state highway network and the number of bee stings happening within the trucking industry, due to the location of bee hives close to roadways. Councillors also noted reports of bee stings to cyclists, walkers and recreational reserve users.

Taranaki has been experiencing heavy intensification of apiculture throughout the region, particularly in relation to manuka, and the sight of bee hives is increasingly common. Of concern however, hives are now frequently visible from roads and public pathways, meaning that there is increasing potential for conflict with members of the public. Naturally, flight path management is an important aspect of responsible beekeeping, and the Council is concerned that community safety in the region may be being compromised in the progressively more competitive pursuit of a long-flowering manuka season.

The Council notes the recent formation of Apiculture New Zealand, and wishes it well with its intent to unify and support the apiculture industry in New Zealand. The Council particularly notes ApiNZ's intent to provide training to its members, along with health and safety advice and systems, and to create a positive industry profile. We encourage you in these endeavours, and advocate for you to establish clear guidelines for your industry — particularly in respect of responsible hive placement to minimise conflict with the community.

ApiNZ will naturally be fully aware of the need to implement good hive management practices to minimise potential nuisance or risks to public health and safety. The Council simply wishes to support you in strengthening messages and providing industry

guidelines around the importance of flight paths not being directed across public pathways on private and public land— and particularly away from roadsides.

Yours faithfully
BG Chamberlain
Chief Executive

per: A D McLay
Director - Resource Management

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10 August 2016

Mr Craig Williamson
Chairman
Regional Transport Committee

Dear Craig

Responses to questions asked at the Taranaki Regional Transport Committee (RTC) on 1 June 2016

At the last RTC meeting on 1 June 2016 the NZ Transport Agency was requested to respond to a number of items. Below are our responses to the questions.

State Highway 43

- A report was requested on the outcomes of following up on the seal causing tyre damage.
  - A review of methodology for placing aggregate has been undertaken by the Taranaki Network Outcomes Contractor (Downer NZ). Downer will implement new methodology the next time aggregate is applied to the state highway. The Transport Agency expects this new methodology to reduce the negative impact of tyres being punctured which is occurring only after the aggregate is initially placed. We will monitor this new method, and continue to update the RTC and local Council as appropriate.

- Are the under slips on SH43 being sign posted well enough? Comments were raised about only having cones around them.
  - There are cones and barriers at the worst slips. Unfortunately the barriers are being constantly knocked over the side of the slips and we retrieve them regularly to put them back in place. We are reviewing the way the barriers are held in place, to ensure they remain along the top of the slip areas. We will maintain the high level of traffic management until the repairs are completed.

- Are we fixing under slips as quickly as possible?
  - All sites impacted by the June 2015 flooding have been made stable to ensure the safety of road users while investigative work has been undertaken. There were 18 emergency works sites requiring repair across the Taranaki region and we have needed to work through the issues and options for each of the sites. To date we have managed to complete the work on five sites, including one site on State Highway 43. These five sites represent 28 per cent of the

total work. The sites on State Highway 43 that still require repair are large and complex and we need to ensure we develop the right, long term, solutions. All of the remaining 11 sites on State Highway 43 will be completed over the upcoming summer period.

For each site we needed to carry out detailed geotechnical investigation work, identify possible options for each site and work through the options to ensure we achieve the optimal solution for each site. This work takes time as we are required to develop the right long term solution.

- The funding for these repairs comes from the state highway maintenance activity class, within the National Land Transport Fund. As each site has the investigation and design completed, it will receive funding for construction.

- Details of the of cost estimate for $9 million for sealing of SH43 requested.
  - We will provide further information prior to the next RTC meeting on 7 September 2016.

- Can we communicate better with affected residents and stakeholders including councils on this?
  - We acknowledge there is a demand for more detailed updates. While we've been operationally focused on getting the repair work evaluated, planned and underway as quickly as practicable, we acknowledge it is important that we share this information with those directly impacted on a day to day basis. We are happy to work with the Councils' communications teams and their channels to ensure all interested parties are informed.

Stratford

- Can we currently fix the approach to the southern roundabout?
  - Our Network Outcomes Contractor, Downer NZ, has scheduled maintenance work in the Stratford township where they were milling and mixing (replacing the asphaltic concrete surface) last month. While completing this work, they also milled and fixed the state highway approaches to both roundabouts. Work on both the north bound exits has alsow occurred. The contractor will ensure they replace the full areas that require replacement.

Mt Messenger to Awakino

- A clear explanation of funding for Mt Messenger to Awakino was requested.
  - The Mt Messenger/Awakino programme of work is primarily funded by the Future Investment Fund as part of the Accelerated Regional Roading Package, with an additional contribution from the National Land Transport Fund for the corridor safety improvement.

  - Will this project/s fix the "bumpiness and water issues" raised by committee members? There are minor improvements projects planned that target this wheel rutting. This work will take place during the next construction season. Areas outside the minor improvement sites will be reviewed and repaired as necessary through the Taranaki Network Outcomes Contract.

- Has consultation begun with the local iwi and affected land owners?
    - We want to reassure the Committee that engaging with local iwi and affected land owners is a priority for the Transport Agency. We are taking a careful and well thought out approach to this engagement. Since the RTC meeting we have met with the Chair and Trustees from Ngāti Tama. We had a good exchange of information and provided further reassurance that they, and other iwi are critical stakeholders for this project.

    - We have yet to engage with other affected land owners as it is too early in the investigation phase. For your reference, an information sheet providing an overview of the programme is attached.

- Can Bedford Corner and Dudley Road be included in safety audit work?
    - CR Dodunski asked the question whether Durham Road would be included in the safety audit. After further discussion it was clarified that CR Dodunski was referring to Dudley Road. Dudley Rd and Bedford Rd were included in an Inglewood crash reduction study in 2013. These two areas are in the minor safety list and will be prioritised for completion, along with other sites in Taranaki. The data will be updated with recent crashes so we are aware of all deficiencies at these intersections when carrying out the prioritisation work.

Oakura

- Property development location in Oakura was questioned.
    - At this stage the development proposes to gain indirect access to the state highway network through the local road network (Wairau Road). This is likely to lead to improvements required where the local road intersects the state highway. The Transport Agency is currently working with the developer and the New Plymouth District Council on what appropriate mitigation would be required.

- When will our assessments be complete/what are timeframes for future work?
    - The safety audit/assessment was completed prior to 30 June 2016 though we haven't received the report as yet. Any future works recommended by the audit will go into the Minor Improvements programme and be undertaken subject to prioritisation of funding. We will report back to the Regional Transport Committee and the Oakura community once we have determined timing.

Vickers to City

- Surface and overall finish not up to standard
    - As we advised at the RTC meeting the surfacing work was not complete at that time. We can confirm that the plan is to complete asphaltic concrete surfacing over the majority of the project area. There is one area within the eastern end project and an additional adjoining area, outside of the project area that require full pavement rehabilitation which will be done in the next construction season. A large portion of the surfacing work was carried out prior to the opening on 23 June 2016. Wet weather meant that some of the surfacing work continued into July.

- Pink concrete – looks awful what are you going to do about it?
    - The pink surface will not be the final finish. We are in discussions with the Transportation Manager and Landscape Architect at the New Plymouth District Council about their preferences. We have invited the Council to develop a design, including appropriate colours. Once that is finalised and agreed, the Transport Agency will upgrade the concrete islands.

- Signage clutter – is it safe? Can it be streamlined?
    - We will review the street sign clutter during the post construction safety audit. We will also ask the New Plymouth District Council if they can also review the clutter of signage adjacent to the road (on private land).

Normanby

- Revocation of original Normanby state highway – process including timing?
    - The Transport Agency will be entering discussions with the South Taranaki District Council regarding revocation of the existing state highway over the next few months, as we get closer to completing the project. We expect the conversation on this to start in September 2016. Where Council wishes to take on parts of the existing state highway to provide access to their rate payers, we will ensure we provide a suitable carriageway. We will be reviewing our options for the sections of the state highway that are no longer required and consulting any affected parties as appropriate as part of this process.

- Update on completion date?
    - The end of 2016 is still the target completion date. This will be dependent on weather and any further delays associated with the historical find.

Other questions

- Right hand turn at Mangorei (Vickers to City) – is it staying as it is or what is planned?
    - As indicated at the meeting the right hand turn is being retained.

- Moturoa Intersection – is further action occurring?
    - We have a two part Minor Improvement project for this area, focused on improving the safety of the pedestrian crossing and simplifying the complicated intersection. The issues are not straightforward so it is a two year project. The first part will be going through consultation and design in the 2016/17 financial year and the second will be construction in the 2017/18 financial year. We are working with the New Plymouth District Council on this as there is a lot of 'place making' to be considered for the shopping area.

- Question from CR Dodunski about general state highway maintenance and it seeming poor compared to metropolitan areas and why is that?
    - The Network Outcomes Contract provides a consistent approach to maintenance and levels of service across the country. Current issues with the Taranaki network are linked to the start of winter, where more issues do appear on the network. We are working with our NOC contractor to rectify the issues raised by CR Dodunski.

We hope this helps answer the questions asked from the last RTC meeting. We look forward to providing further updates at the next RTC meeting in September 2016, including an overview of all Minor Improvement projects being considered for the Taranaki Region.

If you still require further details on the responses above, please do not hesitate in contacting me.

Yours sincerely

Raewyn Bleakley
Regional Director Central
For Chief Executive

Kathryn Van Gameren

From: Craig Williamson <mail@surfingtaranaki.org>
Sent: Sunday, 28 August 2016 4:26 PM
To: Fiona Ritson
Cc: Mike Nield
Subject: Fwd: Cost estimate for sealing SH43

Hi Fiona
Please feel free to circulate as addendum to the recent NZTA updates/responses...
Regards

Craig Williamson
CEO - Surfing Taranaki Inc.
Councillor - Taranaki Regional Council
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Begin forwarded message:

> **From:** Raewyn Bleakley <Raewyn.Bleakley@nzta.govt.nz>
> **Date:** 28 August 2016 at 3:35:13 PM NZST
> **To:** Craig Williamson <mail@surfingtaranaki.org>
> **Cc:** Ross I'Anson <Ross.I'Anson@nzta.govt.nz>
> **Subject: Cost estimate for sealing SH43**
>
> Craig
>
> When we wrote to you recently we indicated we would provide further detail on the estimate of $9m for sealing the unsealed section of State Highway 43.
>
> Please see below for this information. Please feel free to circulate to the RTC members as you see fit.
>
> **Cost Estimate for Sealing SH43**
> The cost to prepare and seal the currently unsealed length of SH43 is estimated at $9M.
>
> The estimate includes a per kilometre rate for some components and a lump sums for several safety items as per below.
>
> The per kilometre rate is based on previous similar to a seal extension projects. This is a commonly used method of estimating costs and we have confidence it is within a suitable tolerance of the cost that would be produced from a more specific and precise costing process which is only possible following full design.
>
> The breakdown of the total price to prepare and seal the 14 kilometres of SH43 includes:
> - Removal of unsuitable material
> - Drainage renewals (open road side drains and culverts)
> - Supply, place and prepare sub-base aggregate
> - Supply and place basecourse aggregate
> - Complete two coat seal
> - Pavement marking and delineation
>
> 14 km @ $550,000 per km **$7,700,000**

Additional lump sum items to improve safety	
Guardrailing	$400,000
Sight Benching	$150,000
Minor alignment changes	$600,000
Additional Widening	$150,000
Sub total	**$1,300,000**
Total	**$9,000,000**

As indicated above should a decision be made to complete the seal extension on SH43, a detailed estimate and confirmed price to carry out the works can be provided following full design work.

Kind regards

Raewyn Bleakley / Regional Director Central
Chief Executive's Office

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Policy and Planning Committee
General Business

Agenda reports

Regional Transport Committee September 2016

Item 3

Regional Land Transport Plan annual monitoring report (808 KB)