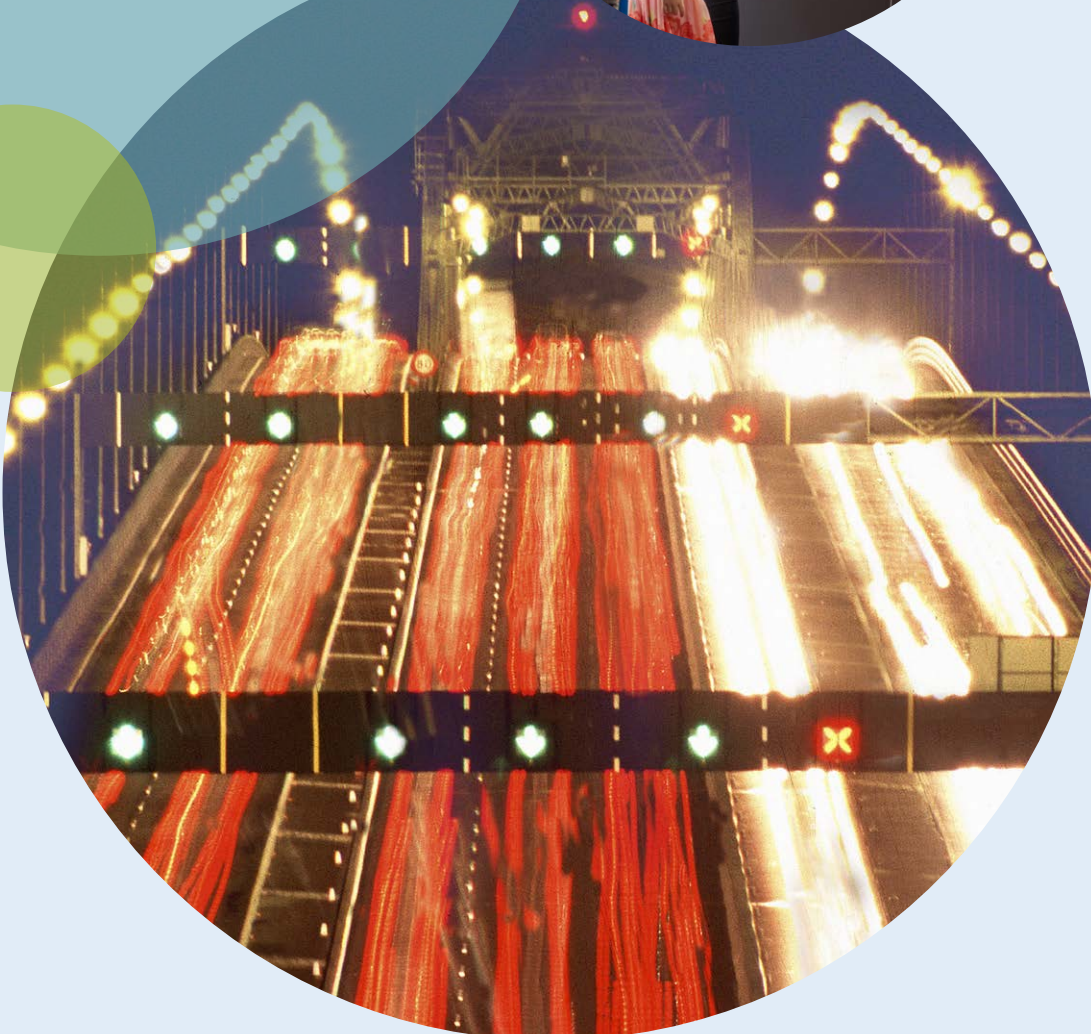


# STATEMENT OF KEY OPERATING ASSUMPTIONS AND RISKS



# Key operating assumptions and risks

This section outlines the key assumptions under which the NZ Transport Agency operates and key decisions are made. Assumptions fall into two categories - those that affect funding and those that affect procurement. All assumptions are made on the basis of a going concern.

The key operating assumptions (and dimensions) that follow focus on the factors that drive demand for the transport solutions that we provide to New Zealanders as well as those that shape the supply of products, services and co-funding to the Transport Agency.

By understanding these factors better, we are more able to identify future impacts on our procurement and revenue/co-funding activities and respond accordingly to adverse circumstances.

There are currently 15 key operating assumptions, with each having a four-year forecast and one or more scenarios associated with it.

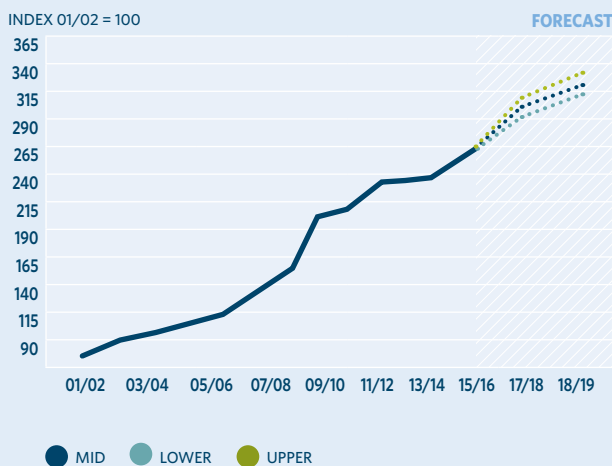
## KEY

<b>REVENUES</b>	● No adverse impact on performance expectations
<b>NATIONAL</b>	● Slight adverse impact on performance expectations
<b>REGIONAL</b>	● Noticeable adverse impact on performance expectations
<b>PROCUREMENT</b>	● Significant adverse impact on performance expectations
<b>NATIONAL</b>	
<b>DETAIL</b>	

## NATIONAL LAND TRANSPORT FUND (NLTF) REVENUES TO GROW STRONGLY

NLTF revenues to grow by an average 3.9% per year

### REVENUES FLOWING INTO THE NATIONAL LAND TRANSPORT FUND



2013/14 BASELINE: \$3.0bn  
 2018/19 FORECAST: Lower - \$3.5bn, Mid - \$3.6bn, Upper - \$3.7bn

**ASSUMPTION** Growth in travel demand associated with improving economic fortunes coupled with adjustments to rates and levies for inflation are expected to increase revenues from road user charges and fuel excise duties by an average 4.9% and 3.5%, respectively over the forecast period.

**DOWNSIDE RISK ASSESSMENT** ●  
 LIKELIHOOD: Likely  
 ADVERSE CONSEQUENCE: Moderate

**RATIONALE** The projected revenue performance is based on a broad range of macro assumptions about the future. Lower than expected revenue growth would constrain the ability to deliver on performance expectations across output classes and increase our use of short-term borrowing for cashflow management.

## MOTOR VEHICLE TRANSACTION VOLUMES TO INCREASE

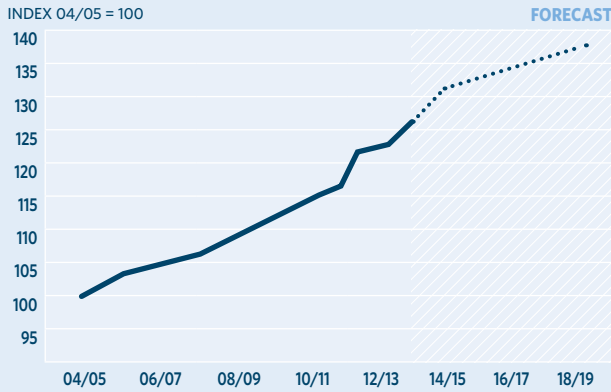
Transaction volumes to grow by an average 2.1% per year

2013/14 BASELINE: 8.9m\*

2018/19 FORECAST: 9.7M\*

\* excludes driver licensing and road user charges transactions

### VEHICLE LICENCE TRANSACTION VOLUMES



**ASSUMPTION** Increases in travel demand associated with improving economic fortunes, changes in vehicle registration levies and a sharpened focus on improving the ease with which customers are able to transact with the Transport Agency is expected to result in an 8.5% increase in transaction volumes over the forecast period.

#### DOWNSIDE RISK ASSESSMENT

LIKELIHOOD: Possible

ADVERSE CONSEQUENCE: Insignificant

**RATIONALE** The projected trajectory for transaction volumes is based on a number of macro-assumptions and expectations about future pricing and activities undertaken by the Transport Agency. In the unlikely event that these expectations are not realised and that motor vehicle licensing transaction forecasts undershoot, the impact, beyond a reduction in fee income (with corresponding expenditure offset), is likely to be minimal.

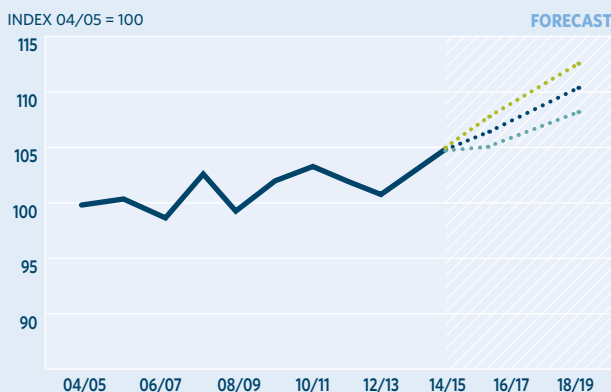
## LIGHT VEHICLE TRAVEL ON THE STATE HIGHWAY NETWORK TO INCREASE

Our mid-point scenario says light vehicle travel will grow by an average 1.4% per year

2013/14 BASELINE: 18.0bn VKT

2018/19 FORECAST:  
Lower - 19.0bn VKT  
Mid - 19.3bn VKT  
Upper - 19.6BN VKT

### LIGHT VEHICLE TRAVEL ON STATE HIGHWAYS



- AVE PETROL PRICE - \$2.1/L
- AVE PETROL PRICE - \$1.8/L
- AVE PETROL PRICE - \$2.4/L

**ASSUMPTION** Stronger economic growth and an average petrol price of \$2.10 per litre is expected to result in a 7.1% increase in light vehicle travel over the forecast period.

#### DOWNSIDE RISK ASSESSMENT

LIKELIHOOD: Possible

ADVERSE CONSEQUENCE: Minor

**RATIONALE** Light vehicle travel demand is based on a mid-point scenario which assumes an averaged petrol price of \$2.10 per litre over the forecast period. Our lower-point scenario assumes that if petrol prices averaged \$2.40 per litre over the forecast period then travel demand would still grow by an average 1.1%. This slightly lower growth rate would have a minimal impact on revenues flowing into the NLTF or on investment made in the state highway network or on road safety.

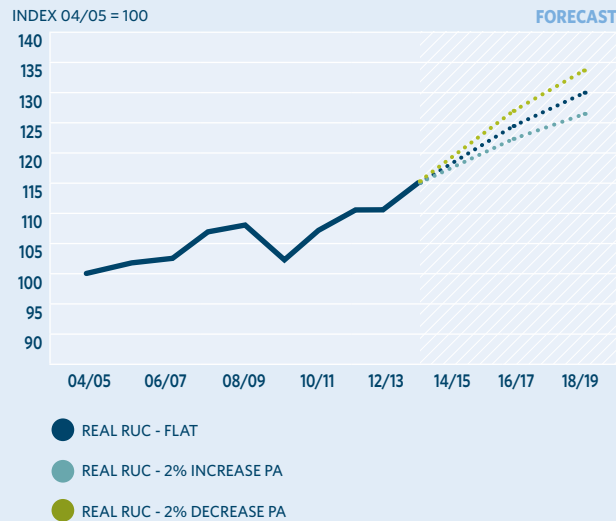
## HEAVY VEHICLE TRAVEL ON THE STATE HIGHWAY TO RISE FASTER THAN TREND

Our mid-point scenario says heavy vehicle travel will grow by an average 2.5% per year

2013/14 BASELINE:  
2.1bn VKT

2018/19 FORECAST:  
Lower - 2.28bn VKT  
Mid - 2.34bn VKT  
Upper - 2.40bn VKT

### HEAVY TRAVEL ON STATE HIGHWAYS



**ASSUMPTION** Stronger economic growth and inflationary adjustments to road user charges are expected to result in a 12.4% increase in heavy vehicle travel over the forecast period.

#### DOWNSIDE RISK ASSESSMENT

LIKELIHOOD:

Possible

ADVERSE CONSEQUENCE:

Moderate

**RATIONALE** Heavy vehicle travel is based on a mid-point scenario which assumes that the price of road user charges is adjusted only for inflation. Our lower-point scenario suggests that if the price of road user charges rises by 2% more than inflation, then heavy vehicle travel demand will increase by an average 1.9% over the forecast period. This slightly lower growth rate would have a minimal impact on revenues flowing into the NLTF or on investment made in the state highway network.

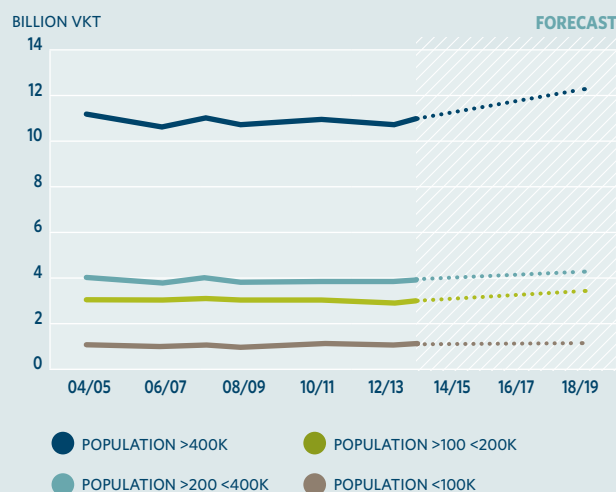
## TOTAL VEHICLE TRAVEL IN LARGER CENTRES TO INCREASE MORE THAN SMALLER CENTRES

Vehicle travel in our major centres to grow by 0.9bn km per year

2013/14 BASELINE:  
Major: 11.6bn VKT

2018/19 FORECAST:  
Major: 12.5bn VKT

### VEHICLE TRAVEL BY REGIONAL BREAKDOWN



**ASSUMPTION** By virtue of having the largest populations and being the major centres of economic activity, New Zealand's major cities are expected to experience the largest nominal increases in travel demand.

#### DOWNSIDE RISK ASSESSMENT

LIKELIHOOD:

Unlikely

ADVERSE CONSEQUENCE:

Severe

**RATIONALE** Most travel demand takes place in New Zealand's major centres and it is reasonable to expect that this trend will continue in the future. However, if this was not to occur, then investment in maintenance, operations and renewals on state highways, as well as in new and improved infrastructure, would be adversely impacted.

## FINANCIAL HEALTH OF LOCAL GOVERNMENT TO SHOW A MARKED IMPROVEMENT

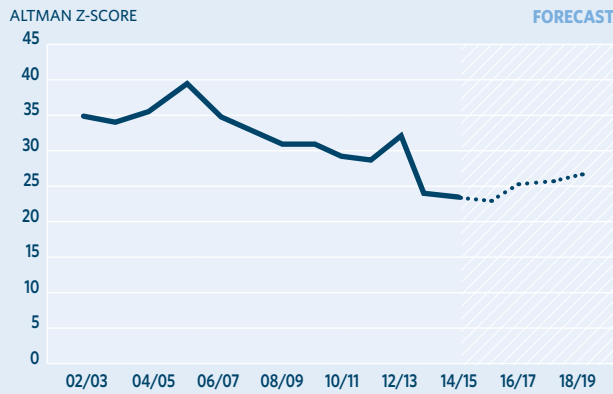
Financial health of local councils to improve by an average 3.1% per year

2013/14 BASELINE:  
Altman Z-Score: 23.6\*

2018/19 FORECAST:  
Altman Z-Score: 26.8\*

\* composite measure of financial health based on published local government financial data.

### FINANCIAL HEALTH OF COUNCILS



**ASSUMPTION** A sharpened focus on cost containment is expected to lead to a better operating performance and a gradual improvement in the financial health of local councils.

#### DOWNSIDE RISK ASSESSMENT

LIKELIHOOD:

Unlikely

ADVERSE CONSEQUENCE:

Moderate

**RATIONALE** An inability to maintain fiscal discipline could result in a re-prioritisation of spending patterns both within and across asset classes. This could potentially have an adverse impact on the investment that the Transport Agency makes in local roads and public transport.

## FINANCIAL HEALTH OF LOCAL GOVERNMENT TO DIFFER BY REGION

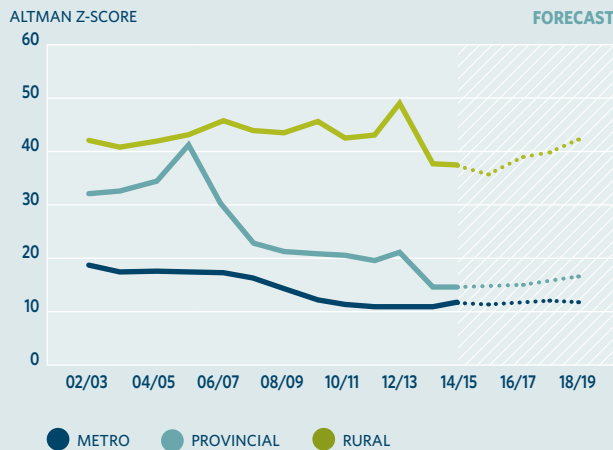
The financial health of rural local councils to rise by an average 2.6% per year

2013/14 BASELINE:  
Rural: Z-Score: 36.8\*

2018/19 FORECAST:  
Rural: Z-Score: 42.5\*

\* composite measure of financial health based on published local government financial data

### FINANCIAL HEALTH OF COUNCILS BY REGION



**ASSUMPTION** Improving cost efficiencies are expected to support an improvement, or at the very least a stabilisation, of the financial health of metropolitan, provincial and rural councils over the forecast period.

#### DOWNSIDE RISK ASSESSMENT

LIKELIHOOD:

Unlikely

ADVERSE CONSEQUENCE:

Moderate

**RATIONALE** The financial health of rural councils is closely linked to regional economic fortunes and these will differ by region. For rural councils expecting a deterioration in their financial circumstances, the inability to co-invest will adversely affect investment in local roads and public transport in rural areas.

## FARE REVENUE TO INCREASE

Revenues from public transport fares to rise by an average 5.4% per year

**2013/14 BASELINE:**

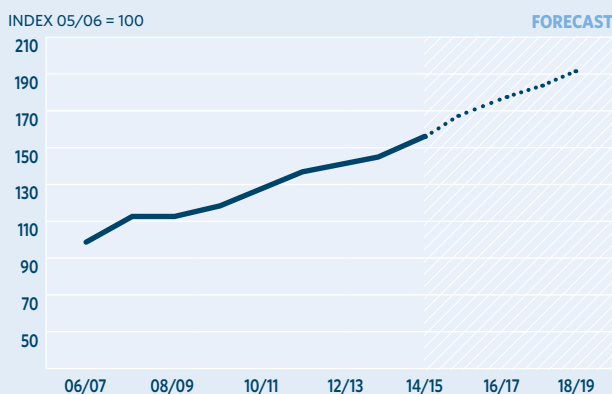
Fares revenue: \$295m\*

**2018/19 FORECAST:**

Fares revenue: \$381m\*

\* Excludes SuperGold card fare substitutes

### FARE REVENUE CONTRIBUTIONS TO THE NLTP



**ASSUMPTION** Inflationary adjustments to unit fares, increases in patronage due to service and capacity improvements as well as tighter labour markets (linked to stronger economic growth) are expected to boost fare revenues over the forecast period.

**DOWNSIDE RISK ASSESSMENT** ●

LIKELIHOOD:

Possible

ADVERSE CONSEQUENCE:

Minor

**RATIONALE** Fare revenues could underperform should patronage forecasts not be realised. While this may adversely affect farebox recovery ratios, lower than expected fare revenues are not likely to have a substantial impact on the investment that the Transport Agency makes in public transport.

## PATRONAGE ON PUBLIC TRANSPORT TO INCREASE

Public transport patronage to grow by an average 3.4% per year

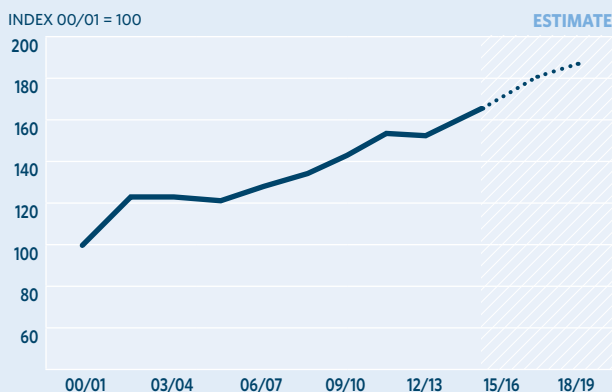
**2013/14 BASELINE:**

138m boardings

**2018/19 FORECAST:**

162m boardings

### PUBLIC TRANSPORT PATRONAGE



**ASSUMPTION** Public transport patronage is expected to grow. In part this is due to the positive impact of ongoing investment (and other initiatives) to make public transport an attractive travel choice.

**DOWNSIDE RISK ASSESSMENT** ●

LIKELIHOOD:

Unlikely

ADVERSE CONSEQUENCE:

Moderate

**RATIONALE** Although improvements to the public transport system are expected to result in higher patronage, there remains a margin of error for predicting growth rates. Slower than anticipated increases in patronage would impact on investment returns, but not on levels of public transport investment.

### RAIL AND BUS PATRONAGE TO INCREASE

Bus use to grow by an average 2.7% per year

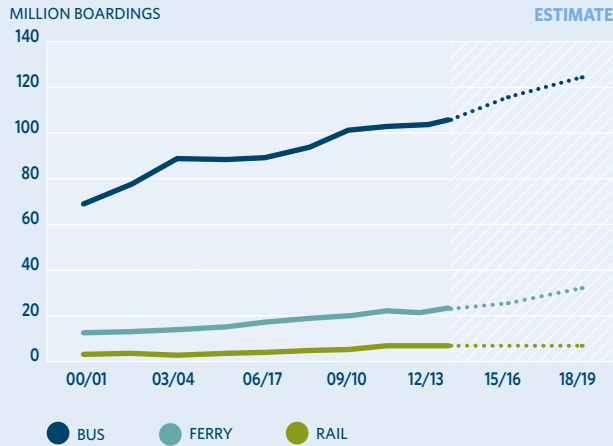
**2013/14 BASELINE:**

Bus: 109.1m  
Rail: 23.1m  
Ferry: 5.4m

**2018/19 FORECAST:**

Bus: 123.6m  
Rail: 31.5m  
Ferry: 6.5m

**PUBLIC TRANSPORT BY MODE**



**ASSUMPTION** Public transport patronage on both bus and rail is expected to grow on the back of substantial investment in services and infrastructure and a supported economic environment. This is particularly true in Auckland where rail and bus patronage is expected to grow by an average 9.9% and 2.6%, respectively over the forecast period.

**DOWNSIDE RISK ASSESSMENT**

LIKELIHOOD:  
Unlikely

ADVERSE CONSEQUENCE:  
Moderate

**RATIONALE** Ongoing investment in public transport services should translate into an increase in patronage numbers across all modes over the forecast period. This is likely to be particularly true for Auckland’s metro rail system which continues to be the beneficiary of significant levels of investment and is growing off a low patronage base. Despite these expectations, patronage forecasts for individual modes do incorporate a margin of error. Slower than anticipated increases in patronage would impact on investment returns, but are unlikely to have any real impact on investment.

### ALL REGIONS TO SEE PATRONAGE INCREASES

Patronage in Auckland to grow by an average 4.2% per year

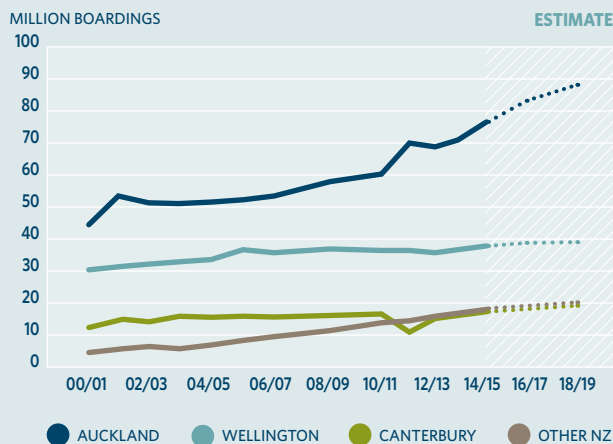
**2013/14 BASELINE:**

Auckland: 72.4m  
Wellington: 35.8m  
Christchurch: 14.3m

**2018/19 FORECAST:**

Auckland: 87.8m  
Wellington: 38.4m  
Christchurch: 18.2m

**PUBLIC TRANSPORT BY REGION**



**ASSUMPTION** Patronage growth rates to differ by region. These differences primarily relate to population demographics, the level and composition of regional economic activity, the maturity of the regional public transport system, investment in infrastructure and services, attractiveness of alternative travel choices, operating models and disruptive regional events, such as the Christchurch earthquakes.

**DOWNSIDE RISK ASSESSMENT**

LIKELIHOOD:  
Unlikely

ADVERSE CONSEQUENCE:  
Moderate

**RATIONALE** Significant lead investment in infrastructure and services, to cater for growth and renew ageing infrastructure, has been required in recent years in Auckland, Wellington and Christchurch. This investment is nearly complete, or planned in the near future. However, typically there are lags between the investment required in creating fit for purpose networks and subsequent patronage increases. Nevertheless, patronage growth is already occurring in Auckland, Wellington and Christchurch, as service improvements are implemented.

CONTRACT COST ADJUSTMENTS TO REMAIN MUTED

Bitumen prices to partially recover and increase by an average 3.5% per year

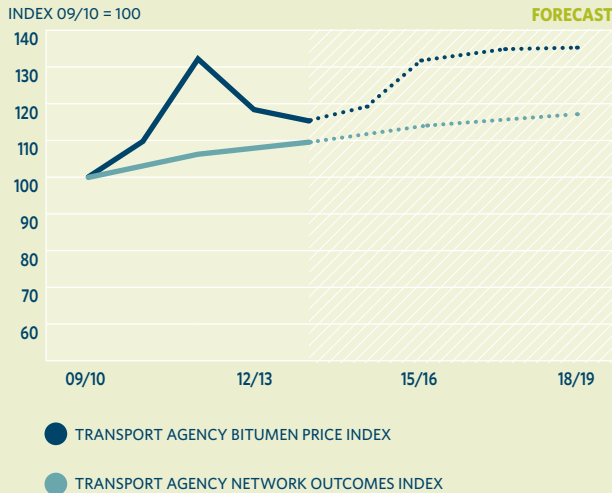
2013/14 BASELINE:

Bitumen index: -4.4%y/y  
 NOC index: 1.1%y/y

2018/19 FORECAST:

Bitumen index: 0.5%y/y  
 NOC index: 1.3%y/y

TRANSPORT AGENCY COST ADJUSTMENT INDICES



**ASSUMPTION** A 15% recovery in NZ\$ crude oil prices before the end of 2015/16 has been incorporated into the forecasts for our bitumen price and network outcome indices (which includes the cost of diesel as part of plant costs). *Note: Because the network outcome index incorporates a broader set of input costs, the assumed recovery of crude oil prices (and with it diesel prices) is not as evident as is the case for the bitumen price index.*

**DOWNSIDE RISK ASSESSMENT**

**LIKELIHOOD:** Likely  
**ADVERSE CONSEQUENCE:** Moderate

**RATIONALE** Our expectation of a partial recovery in crude oil prices rests heavily on what might happen to commodity prices and the NZ\$/US\$ exchange rate over the forecast period – both of which are difficult to forecast. If crude oil prices, for example, rise much faster and are more volatile than we anticipate, the adverse impact on maintaining the network will be significantly higher than currently budgeted for.

CIVIL CONSTRUCTION PRICES TO INCREASE

Civil construction prices to increase by an average 3.1 % per year

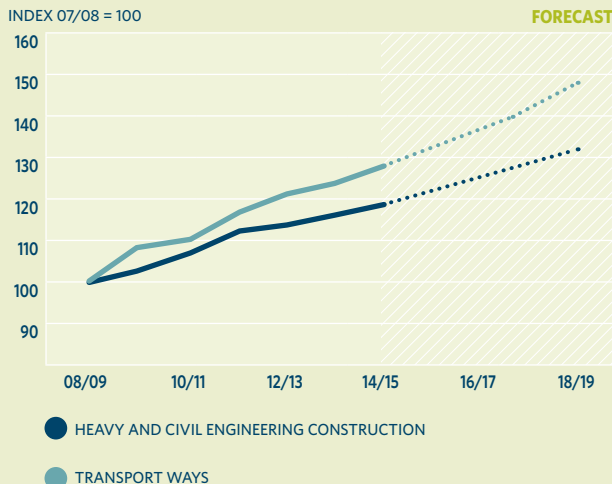
2013/14 BASELINE:

Transport ways index: 2.2% y/y  
 HCEC index: 1.5% y/y

2018/19 FORECAST:

Transport ways index: 3.4% y/y  
 HCEC index: 2.9% y/y

PRODUCER PRICES AND CAPITAL GOODS INDEX



**ASSUMPTION** Continued strong demand within and across related sub-sectors, eg other civil construction, residential and non-residential building – as well as increasing material (aggregate and bitumen), plant (including diesel) and labour input costs are expected to drive construction related prices higher over the forecast period.

**DOWNSIDE RISK ASSESSMENT**

**LIKELIHOOD:** Likely  
**ADVERSE CONSEQUENCE:** Minor

**RATIONALE** Construction and asset prices reflect a broad range of demand and supply factors which are difficult to forecast. However, changes in market prices are of minor consequence because they do not accurately reflect changes in costs faced by the Transport Agency. This is because of existing contractual arrangements, the establishment of network outcome contracts and the Transport Agency's strong position as a bulk buyer.



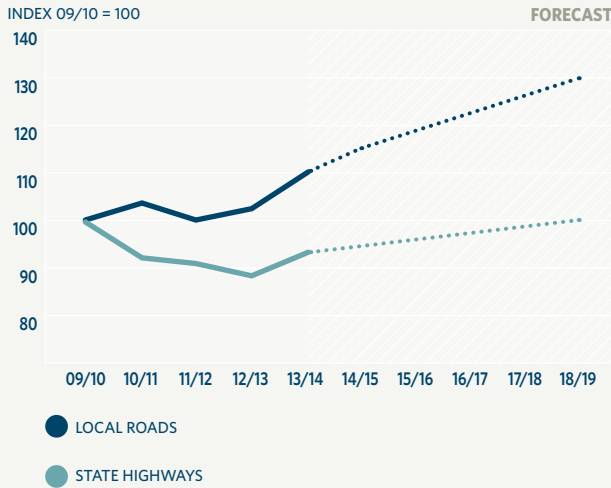
UNIT MAINTENANCE, OPERATIONS AND RENEWAL COSTS TO INCREASE

Unit maintenance costs for local roads to grow by an average 3.1% per year

2013/14 BASELINE:  
 Local roads index: 7.5%  
 State highway index: 5.5%

2018/19 FORECAST:  
 Local roads index: 3.2%  
 State highways index: 1.2%

COSTS PER NETWORK LANE KILOMETRE



**ASSUMPTION** A combination of increased wear and tear due to higher travel demand and rising costs will result in higher unit costs over the forecast period. These increases will, at least in part, be mitigated by our continued focus on maximising cost efficiencies through revised procurement processes and contracts as well as the application of the One Network Road Classification.

**DOWNSIDE RISK ASSESSMENT**

LIKELIHOOD:  
 Local roads - Possible  
 State highways - Possible

ADVERSE CONSEQUENCE:  
 Local roads - Moderate  
 State highways - Moderate

**RATIONALE** Providing accurate forecasts for the unit cost of maintaining roads is particularly difficult given the range of factors that contribute to their estimation, including volatile bitumen prices. Higher than forecast unit costs can have significant impacts on the volume of roads that can be maintained for the same level of investment.

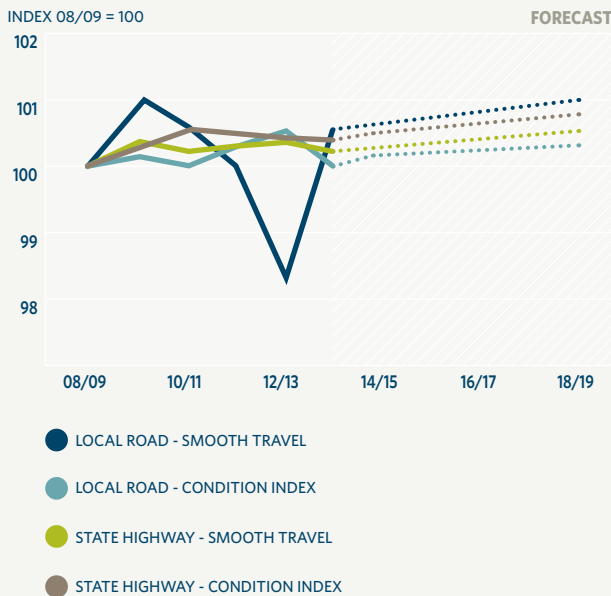
CONDITION OF LOCAL ROADS AND THE STATE HIGHWAY NETWORK TO IMPROVE SLIGHTLY

Smooth travel and pavement condition indices to improve marginally over the next four years

2013/14 BASELINE:  
 Local roads - condition index: 98.1  
 State highway - condition index: 97.5

2018/19 FORECAST:  
 Local roads - condition index: 98.1  
 State highway - condition index: 97.9

ASSET CONDITION



**ASSUMPTION** State highway asset management practices and improved procurement processes are expected to result in the asset condition of the state highway network being maintained over the forecast period. The application of the One Network Road Classification to the local road network is also expected to focus investment where it is needed.

**DOWNSIDE RISK ASSESSMENT**

LIKELIHOOD:  
 Unlikely

ADVERSE CONSEQUENCE:  
 Moderate

**RATIONALE** Despite higher treatment volumes, better asset management practices should ensure that the condition of road networks remains relatively constant over the forecast period. A significant deterioration is thus unlikely. However, if asset condition were to decline markedly, this would have some implication for maintenance and renewal activities on both state highway and local road networks.

# Key operating assumptions: downside risk implications for our core functions

The Transport Agency monitors 15 key operating assumptions that underpin the delivery of our 17 outputs.

The following table details the 13 key operating assumptions that have downside risks which could materially and adversely impact the outputs that we produce.

KEY OPERATING ASSUMPTIONS	FUNCTION			DOWNSIDE RISK IMPLICATIONS ● Noticeable ● Material ● Significant
	Planning and investing in the land transport network	Providing access to and use of the land transport system	Managing the state highway network	
<b>REVENUES</b>				
National Land Transport Fund revenues	●	●	●	
Light vehicle travel on the state highway network	●	●	●	
Total vehicle travel by region	●	●	●	
Financial health of local government	●			
Financial health of local government by region	●			
Fare revenue contributions to the National Land Transport Programme	●			
Total public transport patronage	●	●	●	
Public transport patronage by mode	●	●	●	
Public transport patronage by region	●	●	●	
<b>PROCUREMENT</b>				
Contract cost adjustments	●		●	
Construction related output prices	●		●	
Unit maintenance, operations and renewal costs	●		●	
Physical condition of the network	●		●	

## How our outputs contribute to our long-term goals

The Transport Agency produces 17 outputs, each of which contributes to our desired long-term goals in different ways. The following table sets out the contribution of our outputs to our desired long-term goals.

FUNCTION	OUTPUT	GOAL 1 Integrating one network	GOAL 2 Shaping smart transport choices	GOAL 3 Delivering highway solutions	GOAL 4 Maximising returns for New Zealand
<b>Providing access to and use of the land transport system</b>	Licensing and regulatory compliance		●		
	Road tolling		●	●	●
	Motor vehicle registry		●		
	Road user charges collection, investigation and enforcement		●		●
	Refund of fuel excise duty		●		●
<b>Planning and investing in the land transport network</b>	Investment management	●	●	●	●
	Public transport	●	●	●	●
	Administration of SuperGold cardholder scheme and enhanced public transport concessions for SuperGold cardholders		●		●
	*Walking and cycling	●	●		●
	Road safety promotion	●	●	●	●
	*Road Policing Programme (NZ Police output)		●	●	●
	*Local road improvements	●			●
	*Local road maintenance				●
	Regional improvements	●		●	●
<b>Managing the state highway network</b>	State highway improvements			●	●
	State highway maintenance			●	●

\*The Transport Agency does not deliver these goods or services directly. These output classes receive NLTP investment funds. Actual outputs are delivered by approved organisations. Measurement of Transport Agency performance, in relation to investment output classes, can be found in the management of the funding allocation system.

**KEY**


Major/primary contribution



Minor/secondary contribution

NB: Where there is no dot, there may still be a small contribution