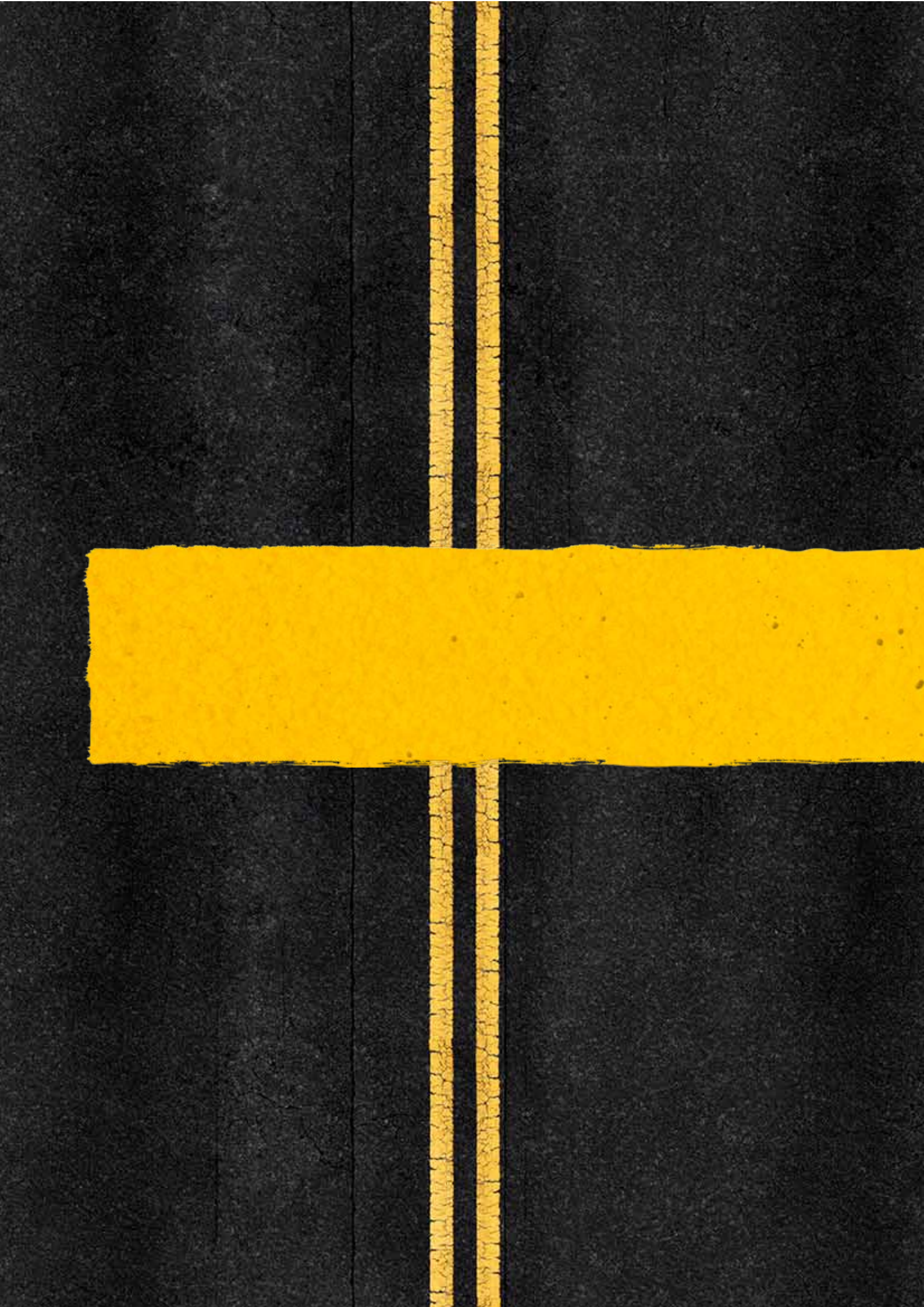


Funding
AUCKLAND'S
TRANSPORT
FUTURE

Final Report
— ALTERNATIVE —
FUNDING FOR TRANSPORT



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EXECUTIVE SUMMARY

Auckland's population is predicted to grow twice as fast as the rest of New Zealand over the next 30 years. Two-thirds of this growth is expected from our birth rate and internal migration, and one-third as a result of migration from other countries. The result will be transport congestion that is unacceptable, disruptive and costly. We need to act now.

In order to cope, Auckland's transport system must undergo change across all modes – roads, public transport, walking and cycling. A quality, responsive transport system designed to support the growth of New Zealand's largest city will not occur overnight.

Current sources of funding simply aren't enough to pay for the transport programme laid out in the 30-year Auckland Plan. Even with a significant increase in investment, the forecast performance of key parts of the transport system will be worse from 2031 than it is today.

The challenges facing transport in Auckland are considerable, but our biggest failure would be to do nothing.

First steps

Auckland's rapid population growth is forcing us to act. The Auckland Plan contains the council's transport strategy to respond to Auckland's projected growth and confirms that there is insufficient funding to implement it. As the first step, Auckland Council tasked the Consensus Building Group ('the CBG') with coming to an agreement on our preferred way to meet the shortfall. This document sets out our findings.

We considered a range of potential solutions – from traditional funding sources to solutions that would be new for Auckland. They included increases to rates, petrol tax and road user charges for diesel vehicles (referred to throughout this document collectively as 'fuel taxes'), public transport fares, development financing, regional lotteries, sales and payroll taxes and a visitor 'bed' tax. In total we considered more than 20 possible funding sources.

Our recommendations

Many of the options fulfilled the primary requirement of being able to raise enough revenue. While the funding source chosen could impact on demand (use of the network), managing the demand through other means will also be critical to the future effectiveness of the transport system. Building our way out of congestion will not be possible.

Early improvements, particularly the provision of affordable transport alternatives, should be given priority. These include public transport and active travel options (such as a connected network of safe and attractive walking and cycle ways). The sequence and timing of the investment programme needs to be carefully considered to optimise the performance of our transport system and reflect the availability of funding.

A decision is needed by 2015 at the latest on how and when the funding gap will be filled. Two alternative pathways are proposed.

Under the first pathway, the funding gap would be filled primarily by increases to rates and fuel taxes, as these can be implemented relatively quickly, and supplemented by a significant government contribution and increased fare revenue from public transport. Regular annual increases in rates and fuel taxes would be needed, even beyond 2021, to meet the ongoing funding gap.

Under the second pathway, the funding gap would be initially filled by increases to rates and fuel taxes and increased fare revenue from public transport as before, but road pricing would be introduced by 2021 at the latest. This would remove the need for ongoing large increases to rates and fuel taxes. The public feedback to our discussion document strongly suggests that Aucklanders are not prepared to accept significantly higher rates increases and heavier congestion. This leaves road pricing as an option worthy of serious consideration.

Our principal finding is that unless Aucklanders are prepared to accept significantly higher rates increases and heavier congestion, introducing some form of road pricing by 2021 will be required.

Section 1

INTRODUCTION

INTRODUCTION

No matter where we live in Auckland, transport is critical to our enjoyment of living and working here. For too long, Auckland's daily reality has been traffic congestion, poor provision and safety issues for cyclists, pedestrians and other road users, and inadequate public transport.

Without action, the problem is going to get much worse. One new Aucklander is added to our city every 20 minutes, giving us a predicted population of between 2.1 and 2.5 million by 2041, compared to 1.5 million today. In the next 18 years alone, there will be another 500,000 people living here. Two-thirds of this growth is driven by our birth rate and internal migration, with a third from immigration.

If we do nothing, moving around Auckland will be even more frustrating than it is today. The time to act is now.

The first step is to identify the best funding sources to enable critical transport projects. The second is to ensure that these funding sources will be in place to raise the funds as and when they are needed.

Auckland Council and central government must have confidence in their ability to fund new investments. Aucklanders also want certainty. Creating a stable platform for economic investment in our city relies on a shared understanding of what will be built, and by when. Certainty cannot be achieved without first securing the funding.

Every Aucklander will be affected by increasing congestion and will benefit from the transport investments. Robust agreement by Aucklanders is a fundamental building block for working with central government to put in place an acceptable solution.

THE CONSENSUS BUILDING GROUP

In July 2012, Auckland Council committed to bringing together an independent group of stakeholders who could build broad consensus around the funding sources needed to improve Auckland's transport system.

Auckland Council's governing body resolved:

"That the Governing Body direct council officers to carry out investigations, stakeholder collaboration and system design for selected alternative funding options for transport.

"That the investigations, stakeholder engagement and system design primarily focus on more examination of:

- i) regional fuel taxes.*
- ii) congestion charging/network charging.*
- iii) additional car parking charges.*
- iv) airport departure and visitor accommodation charges, as secondary sources and recommend involvement by the Tourism Industry in the Consensus-Building Group.*
- v) tax increment funding.*

"That the Governing Body note that the recommendations above do not exclude the use of existing land transport funding sources, including general and targeted rates, development contributions, public transport fares and government financial assistance."

19 July 2012 GB/2012/105-107

On the basis of this recommendation, the Council appointed the Consensus Building Group ('the CBG'). The CBG comprises the following members:

- ▶ **Stewart Milne**
CBG Chairman
- ▶ **Andy Smith**
Walk Auckland
- ▶ **Cameron Pitches**
Campaign for Better Transport
- ▶ **Donna Wynd**
Child Poverty Action Group
- ▶ **Gary Taylor**
Environmental Defence Society
- ▶ **James Brown**
Tournament Parking Ltd
- ▶ **Kim Campbell**
Auckland Business Forum
- ▶ **Paul Shortland**
Cycle Action Auckland
- ▶ **Phil Eaton**
New Zealand Property Council
- Auckland Branch
- ▶ **Robert Reid**
New Zealand Council
of Trade Unions
- ▶ **Shaun Awatere**
Landcare Research
- ▶ **Simon Douglas**
New Zealand Automobile
Association
- ▶ **Simon Lambourne**
Auckland International
Airport Ltd
- ▶ **Simon Wallace**
Tourism Industry Association
of New Zealand
- ▶ **Steven Grant**
New Zealand
Automobile Association
- ▶ **Stephen Selwood**
New Zealand Council for
Infrastructure Development
- ▶ **Tony Garnier**
Auckland Business Forum

THE OBJECTIVES

Our main objective was to build a robust evidence-based consensus on the preferred revenue raising tools for filling Auckland's transport funding gap, through active debate and public engagement.

We worked together for nine months, testing alternatives and developing a shared understanding about Auckland's transport funding needs and how they should be met.

The Auckland Plan transport improvements were the starting point for our deliberations. As individuals, all members of the CBG have personal views on different projects within the Auckland Plan. Our job was not to re-evaluate the merits of the Auckland Plan. Auckland Council has made decisions on Auckland's future transport system following a detailed political and public consultation process. We also note that individual projects in the Auckland Plan will still go through their own evaluation and review process.

We considered a wide range of potential sources of revenue to fund these transport improvements. In all we explored over 20 different approaches. We considered increases to fuel taxes, rates, public transport fares and development contributions. From overseas, we examined funding sources such as road pricing and tax increment financing (also known as betterment levies). We also considered less conventional solutions, such as a regional lottery, visitor ('bed') tax, and a departure tax (airport and seaport).

We then compared the relative merit of these different funding sources against screening criteria (Table 1). A high-level assessment enabled us to set aside funding sources with significant flaws or disadvantages (see an expanded section on Funding sources in the Appendix).

As the list of potential sources became more manageable, our assessment became more detailed. We used the council's strategic transport model to forecast future travel demands and system performance. Our indicative economic assessment followed NZTA's economic evaluation framework. Our final recommendations take into account this analysis and the public feedback that we received.

Our brief did not extend to designing detailed funding schemes. That will occur once the council, the government and the people of Auckland have decided which funding options will be pursued.

Table 1

SCREENING CRITERIA	ISSUES CONSIDERED
STRATEGIC ALIGNMENT	Contribution to Auckland Plan transport and urban form priorities Contribution to government transport strategy outcomes Impact on planned expenditure
REVENUE POTENTIAL	Revenue sufficiency Revenue sustainability
ADMINISTRATIVE SIMPLICITY	Implementation costs Compliance costs Operating costs Scheme complexity Level of risk
EFFICIENCY	Economic efficiency Evasion/compliance Fit with existing funding tools
FAIRNESS	Equal treatment of 'like' payers (horizontal equity) Distribution of burden/benefit between groups (vertical equity) Affordability Mitigation of negative impacts
ACCEPTANCE	Transparency Public acceptance Political feasibility

PUBLIC ENGAGEMENT

Developing an ‘Auckland consensus’ has been a critical component of this project. Increases to transport funding will affect everyone. An enduring consensus can only be developed if the public has the opportunity to fully understand and debate the issues.

Although the council will formally engage the public if it progresses our recommendations, we also wanted to understand what Aucklanders thought about our proposals before making our final recommendations.

To provide a sound basis for debate, we felt it was necessary to inform Aucklanders about the inevitability of Auckland’s population growth and what that will mean for transport. To this end, in March 2013 we set up a website and circulated a document titled ‘Alternative Transport Funding Project’. These covered Auckland’s growth and funding challenges. Media and on-road publicity was also used.

This was followed by public engagement on our draft proposals released on 29 April in our discussion document, ‘Funding Auckland’s Transport Future’. This engagement included Local Boards, the Independent Maori Statutory Board and other interested stakeholders.

The questions we asked Aucklanders were:

1. Do you agree that:
  - a. Securing additional funding for transport improvements in Auckland is a priority?
  - b. A package of funding sources should be used to raise the additional \$400 million per year required to meet the transport funding gap?
2. We have set out two packages of funding sources from 2021. Which do you prefer:

Option 1

Increased revenue primarily from rates and fuel taxes; or

Option 2

Road pricing supplemented by rates and fuel taxes.

We had an extremely positive response to the report, and a great deal of media interest. Overall, we had 9,735 visits by individuals to our website and received 2,370 responses on transport funding in Auckland. Of these, 1,320 were in direct response to the discussion document (see the assessment on page 30).

We also reviewed commentary on popular blog and media sites, as well as responses to independent polls prompted by our discussion document. It is worth noting that the themes that emerged from those polls and blog sites were relatively consistent with the formal responses provided to our discussion document.

Section 2

**MEETING THE
CHALLENGES OF
AUCKLAND'S
GROWTH**

AUCKLAND'S GROWTH STORY

Auckland's population is projected to be well over two million by 2041. Statistics New Zealand's medium growth scenario forecasts a population of 2.1 million.

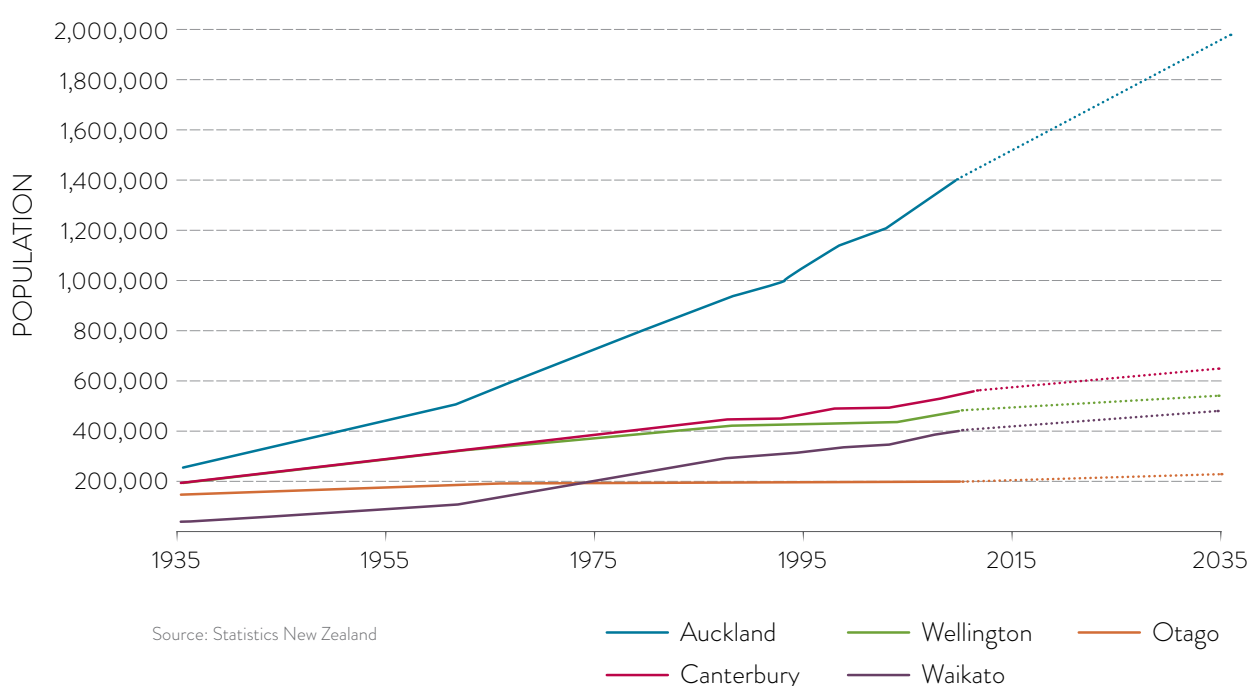
Historically, Auckland's population has expanded faster than estimated. If 'high' growth eventuated, our population could exceed 2.4 million by 2041. This would equate to accommodating the population of greater Wellington in Auckland between 2011 and 2031.

Figure 1 shows Auckland's projected growth in comparison to other New Zealand cities

if a medium growth scenario eventuates. One-third of our new residents will be international migrants who are largely filling specific shortages in our labour market; the other two-thirds will come from other parts of New Zealand or from births in Auckland. That means we have only limited control over how fast the population is growing.

Our projected population growth will place enormous pressure on infrastructure such as housing, water, wastewater, other utilities and services. All of these compete with transport for a share of public funding. Internationally, other cities are struggling with this issue and are putting in place a range of solutions that we have learnt from.

FIGURE 1: HISTORIC AND FORECAST POPULATION ESTIMATES BY REGION



DOING NOTHING IS NOT AN OPTION

The implications for transport mean it's time for positive action because, even with the significant investment proposed in the Auckland Plan, key transport performance indicators deteriorate. Failure to deliver the necessary investments is untenable.

Aucklanders already know the frustrations of sitting in traffic, waiting for buses and travelling in congested conditions. Many of us also accept that, to some extent, this is part of living in a big city. But if the current situation deteriorates much further, it will have an unacceptable impact on our daily lives and on the way that our city and economy function.

Our analysis showed that, unless we make substantial investments in Auckland's transport system, congestion will be much worse than it is today. Large areas will be operating at capacity, causing traffic jams and overcrowding, making it even harder to move around Auckland.

Transport has an enormous impact on our daily lives and our ability to easily access jobs, education, social, recreational and essential services. A congested transport system decreases our connections with each other. It also contributes to carbon emissions and poorer air quality because vehicles are sitting in traffic for longer.

There are also some serious implications for all of New Zealand. Although people living outside of Auckland do not generally face the prospect of spending large amounts of time on Auckland's congested roads, their prosperity is indirectly affected because Auckland is so important to New Zealand's overall economic development and productivity.

KEY FINDING

Historically, Auckland's growth has exceeded predictions. We need to plan and act now to respond to inevitable and rapid growth.

PLANNED TRANSPORT IMPROVEMENTS

Many of those who provided feedback expressed their frustration with Auckland's transport system and sent a strong message in favour of immediate action. There was also support for both improving and increasing the efficiency of the existing networks.

The transport investment identified in the Auckland Plan aims to minimise further deterioration in the performance of Auckland's transport networks. Significant improvements to the transport system are critical and urgent. We agree that many of the initial improvements identified in the Auckland Plan are essential for Auckland to cope with population growth. The sooner we complete these projects, the better. It will never be cheaper to build these major projects than it is now.

To keep Auckland's transport system moving in the future, we will need to do even more than what is contemplated in the Auckland Plan. Our analysis showed that the Auckland Plan projects will make a positive difference to Auckland's transport system, but even with these improvements, we will still face greater traffic congestion in the future than we do today.

KEY FINDING

Significant improvements to the transport system are critical and urgent. But to keep Auckland's transport system moving in the future, we will need to do even more than what is contemplated in the Auckland Plan.

MANAGING DEMAND

International experience shows that there are limits to the transport capacity that can be built. As Auckland approaches those limits, we will need to more actively manage the demands placed on our networks.

Auckland cannot simply build its way out of congestion – we need to carefully manage demand by balancing disincentives with viable transport alternatives. The comments provided to us during the course of this project suggest a large number of respondents have also reached this conclusion.

A range of non-priced demand management initiatives could make significant contributions (for example more bus lanes, walking school buses, carpooling, working from home, living closer to work initiatives). Improved public transport services will also play a role in encouraging the use of buses, trains and ferries. In addition, pricing initiatives could deliver transport benefits, for example faster and more reliable travel times.

Many of the respondents to our discussion document supported managing demand through road pricing so that those contributing to congestion bear some of the cost. A number of people also wanted other measures, such as car pooling, walking school buses and working from home to be promoted. Concern was also expressed that an increase to public transport fares would be at odds with efforts to address Auckland's congestion.

KEY FINDING

Building additional transport capacity will not be sufficient by itself. Managing transport demand will also be critical to the future effectiveness of the networks.

PROVIDING ALTERNATIVES

Aucklanders need to have realistic choices about how they travel.

Planned public transport infrastructure improvements need to be prioritised as they provide benefits to all transport users. Providing active travel options, such as a connected network of safe and attractive walking and cycle ways, has the added benefit of taking some pressure off the roads. Our own views, and the feedback that we received, indicated that improved transport options need to be in place before any significant additional charges are imposed on Aucklanders.

KEY FINDING

Before significant increased costs are imposed on Aucklanders, affordable transport alternatives should be in place. These include improved public transport and active travel options (such as a connected network of safe and attractive walking and cycle ways).

Section 3

THE FUNDING GAP

THE \$12 BILLION FUNDING GAP

Despite the uncertainties that inevitably surround 30 year projections, it is clear that the transport programme in the Auckland Plan cannot be delivered without additional funding beyond what is currently available. The Auckland Plan put the shortfall at \$10-\$15 billion.

Based on current policies, we are confident that there is actually a funding gap of at least \$12 billion, with \$3 billion falling in the first decade. Filling this gap would require additional funding averaging around \$400 million each year for the next 30 years.

Our starting point for quantifying Auckland's transport funding gap was to identify the existing sources of funding for the transport system as a whole. We did not make distinctions about whether particular streams of funding are tagged for specific types of transport expenditure.

We identified the following existing sources of funding for Auckland:

- ▶ New Zealand Transport Agency's (NZTA) State Highway construction and maintenance programme is funded from fuel taxes
- ▶ Public transport infrastructure and improvements to local roads and footpaths are funded from development contributions, NZTA subsidies (derived from fuel taxes), and debt funding from Auckland Council
- ▶ Road maintenance, public transport services and other operating costs are funded from rates, NZTA subsidies and public transport fares – throughout this analysis, the net public transport subsidy is used, after public transport fares are deducted.

Before seeking additional sources of funding we expect that existing revenue will be used in the most effective way, and wherever possible, new transport expenditure will be accommodated from existing budgets.

The public feedback that we received clearly indicated that, before they are asked for more money, Aucklanders expect the council and the government to examine their budgets closely to find savings that could help fund new transport projects. However, it is also clear that the scale of additional funding required is so large that reprioritisation alone cannot yield sufficient savings to cover the entire funding gap.

THE COST OF PROJECTS

Between now and 2042 the total transport expenditure in Auckland is projected to be \$68 billion.

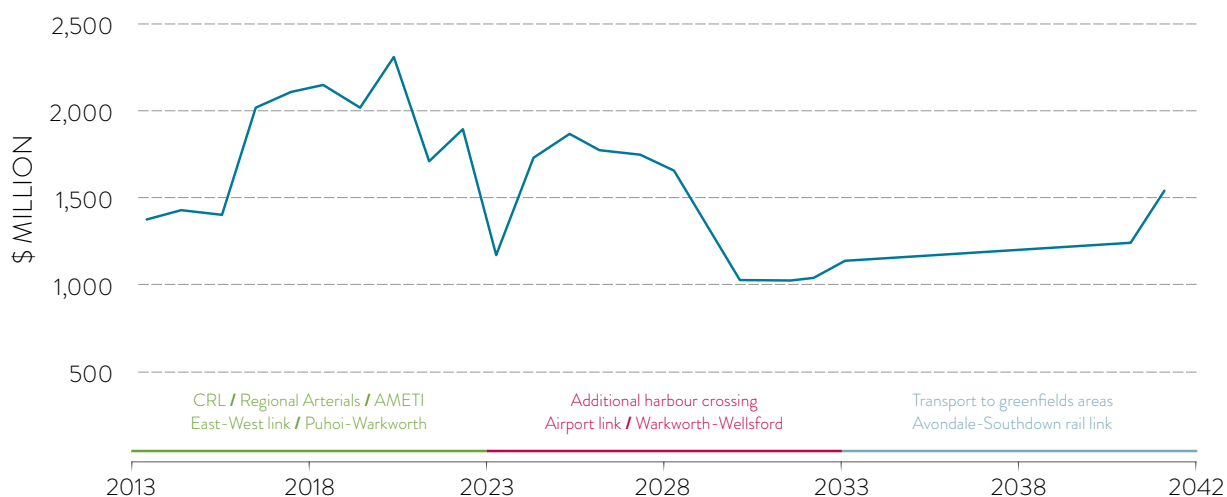
Capital expenditure on transport is projected at around \$45 billion. Figure 2 shows the profile of the capital programme, and some of the priority projects by decade.

We note that expenditure is lower in the third decade due in part to the difficulty of identifying and costing specific transport projects so far into the future.

We used the best estimates of project costs currently available, but they are only initial estimates

(particularly for those projects identified after 2031). Experience tells us that initial estimates tend to understate the actual costs of projects.

FIGURE 2: PROJECTED CAPITAL COSTS – 2012-2042



Source: Statistics New Zealand

Note:

1. The capital expenditure projections are sourced from Auckland Council, Auckland Transport and NZTA.

COST BREAKDOWN

The funding gap results from both the capital costs of providing new infrastructure, and the significant ongoing operating costs of the transport system. To 2042, operating costs – together with depreciation and interest – are estimated at around \$42 billion.

Public transport subsidies (net of recovery through fares)	\$15.5 billion
Maintaining local roads and footpaths	\$4.5 billion
Maintaining state highways	\$2 billion
Offset by parking and enforcement revenue	(\$1 billion)
Interest and funded depreciation	\$21 billion
Total Operating Costs to be funded	\$42 billion

Auckland Council's policy is to fund its new capital expenditure partly from debt. The interest and depreciation from those assets are funded from rates and other sources, thus spreading the costs of those investments across generations. The current government's policy is to fund new assets on a 'pay-as-you-go' basis. Based on these respective policies, of the \$45 billion capital expenditure, around \$26 billion would need to be funded upfront, with the remaining \$19 billion initially funded by the council.

Capital costs	\$45 billion
Offset by Auckland Council funding	(\$19 billion)
Total Capital Costs to be funded	\$26 billion

TOTAL FUNDING REQUIREMENT

\$68 billion

THE AVAILABLE FUNDING

Based on current policies, we estimate that the funding available from existing sources until 2042 will be somewhere between \$52 and \$60 billion. We have kept our estimates as a range to take account of uncertainties that may affect these numbers.

Rates and development contributions for transport in 2013 are projected at around \$460 million. We have assumed that rates revenue will grow as the region's population grows. The council's Long-term Plan provides that the proportion of that revenue dedicated to transport increases through the first decade; beyond this it is assumed constant.

Rates revenue for transport

\$21.5-\$23.5 billion

Development contributions

\$2.5 billion

Funding for Auckland from fuel taxes in 2013 is projected at around \$1 billion, and is projected to remain constant in real terms over the 30-year period, once the government's recently announced increase of three cents each year for three years has been implemented. The projection of constant revenue from fuel taxes reflects the offsetting impacts of increased population and vehicle numbers against the increased fuel efficiency of vehicles. Auckland's share of the revenue from fuel taxes is projected to remain constant. These assumptions would result in rates contributing a progressively larger share of total transport revenue, up from 32 per cent today to around 52 per cent by 2042.

Fuel taxes

\$28-\$34 billion

TOTAL FUNDING AVAILABLE

\$52-\$60 billion

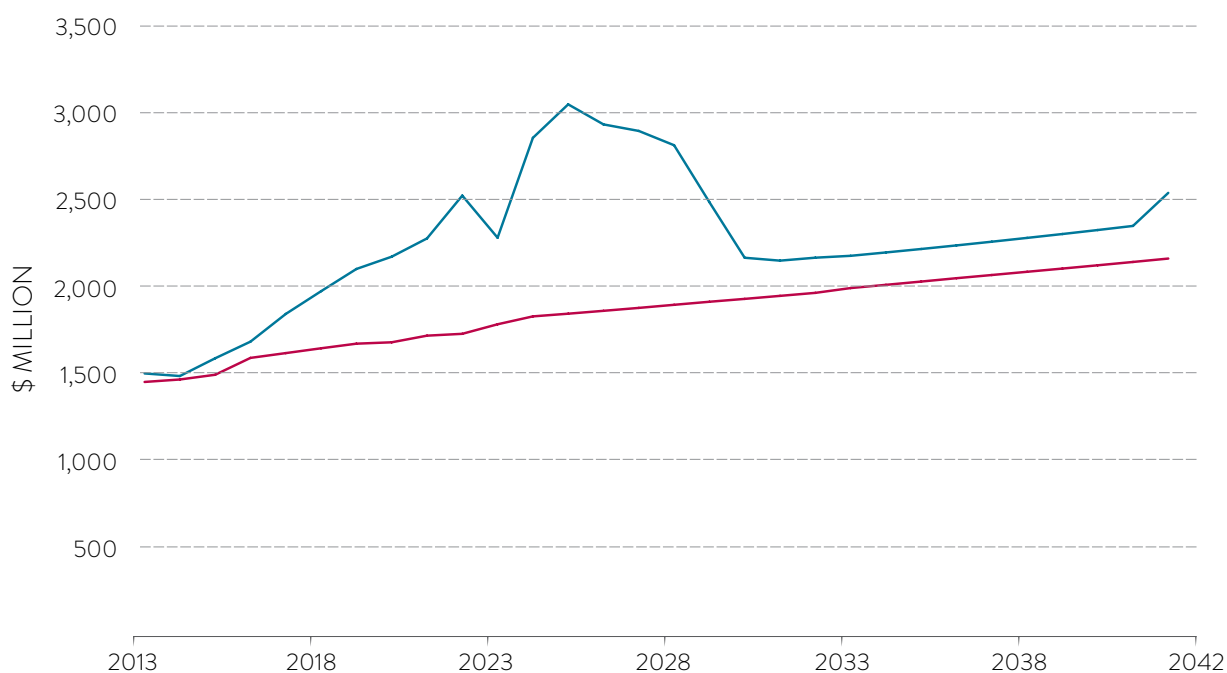
CALCULATING THE FUNDING GAP

In the Auckland Plan, the council estimated the funding gap to be in the range of \$10-\$15 billion. Our analysis suggests the gap is between \$8-\$16 billion. Because the level of investment needed in the second and third decades is likely to be understated, we consider the funding gap to be at least \$12 billion. More will be required if Auckland is to attempt to halt the decline in performance that occurs after the investment in the Auckland Plan.

Figure 3 shows the profile of the expenditure, alongside the available revenue. By 2022, the funding gap reaches around \$3 billion. By 2032, it increases to around \$10 billion, and by 2042 it reaches \$12 billion.

TOTAL FUNDING GAP \$12 billion

FIGURE 3: TOTAL FUNDING GAP



Source: Statistics New Zealand

- Available funding from rates, NZTA and development contributions
- Total expenditure to be funded

MAKING 30 YEAR PROJECTIONS

Clearly there are areas of uncertainty in these 30-year projections, and it is worth recognising some of those that have a major impact on the financial projections.

- ▶ The investment programme anticipated by the Auckland Plan, in the first 10 years in particular, is ambitious and would require a considerable effort to implement in the timeframes specified in the Auckland Plan
- ▶ Public transport subsidies assume a significant increase in patronage which may not be achieved
- ▶ It was difficult to accurately forecast and provide costs for projects that are well into the future, and in some cases have not been fully scoped
- ▶ Rates revenue projections are based on assumptions of high growth in Auckland
- ▶ Projections of revenue from fuel taxes, and the share of that revenue allocated to Auckland, are uncertain.

The forecasts were prepared on the basis of current policies, including the government's approach of fully funding state highway improvements. An alternative approach to funding, such as a public private partnership for the additional Waitemata Harbour crossing, may not reduce the funding requirement, but would change its timing.

The Auckland Plan's investment programme is expected to go through some development and refinement. All major projects will need to be supported by a robust business case. The ability to deliver such a comprehensive programme and the availability of funding will require careful sequencing and timing of the investment and regular review of the programme.

We are confident that, on average, an additional \$400 million each year over the next 30 years is needed to meet the expectations set out in the Auckland Plan (the actual annual figure may be above or below this number).

KEY FINDING

At least an extra \$12 billion (on average \$400 million each year) will be required to deliver the Auckland Plan's transport programme over the next 30 years.



**GIVE
WAY**



Section 4
OUR ANALYSIS

POTENTIAL FUNDING SOURCES

The ability to generate sufficient revenue to fund the level of transport investment in the Auckland Plan was the primary consideration in our decision-making process. But given the continuing pressure on Auckland's transport system, our focus then turned to whether some funding sources could provide additional transport benefits (such as reducing congestion).

Our consensus was that only four sources offered the most practical way of addressing the funding gap. Many respondents to our discussion document felt that fuel taxes, rates, road pricing and tolls were valid options to consider. We also received strong feedback that increased government contributions were needed and warranted.

There was public support for funding sources that are 'user pays'. The only exception was public transport fare increases. Some respondents believed that all transport users, including public transport users, should pay their fair share. However, respondents also commented that public transport fare increases would be counter-productive if Auckland is serious about reducing congestion.

We note that implementing the government's 50 per cent fare box recovery policy will result in real public transport fare increases over the next three years.

KEY FINDING

Having assessed the potential funding sources, the following sources remained part of our more detailed examination:

- ▶ Fuel taxes
- ▶ Rating-based sources
- ▶ Road pricing
- ▶ Tolls on new roads.

FUNDING SOURCES WE DISMISSED

We recommend later in this report that the following sources should not be considered further:

- ▶ Regional lottery
- ▶ Regional payroll tax
- ▶ Regional GST/sales tax
- ▶ Visitor bed tax
- ▶ Departure tax
- ▶ A levy on vehicles registered in Auckland
- ▶ New forms of parking levies
- ▶ Managed toll lanes
- ▶ Area charging
- ▶ Double cordon
- ▶ Full-distance charging
- ▶ Tax increment financing/betterment.

These sources were assessed against the criteria in Table 1 and dismissed for one or more of these reasons:

- ▶ Raised too little revenue
- ▶ Were too complex to implement or physically impossible
- ▶ Cost too much to administer for the level of revenue that could be raised
- ▶ Targeted an activity that was only marginally associated with the transport system
- ▶ Had significant issues of fairness.

For greater detail on our reasons for dismissing certain tools refer to the Appendix.

We considered the potential application of funds from dividends and interest from, or sale of, council assets. The council's revenue forecasts anticipate the expected future dividends from council assets. Selling the assets would broadly realise the same total value of contribution as the forecast future earnings. Accordingly, asset sales would not reduce the funding gap beyond our current estimates.

We also considered the possibility of full distance charging. However, international experience told us that this would be difficult to implement because of the technical challenges that it poses. We would not rule this out as a viable option in the long term, and consider that our proposals could eventually evolve into a more comprehensive scheme, as the need increases and technology allows.

SEQUENCE AND TIMING

Achieving certainty about when additional funding streams will be in place is critical. Major projects have long lead times but they cannot commence without certainty of funding. Without certainty, it will be difficult to progress with construction of key transport projects in the Auckland Plan.

In addition to assessing potential funding sources against our screening criteria, we also spent considerable time working through the most appropriate timing of any additional funding streams and how quickly they can be put in place. Obtaining additional funding from some sources could be achieved more quickly than others. For example, increases to rates and existing fuel taxes could be in place ahead of a road pricing scheme or a regional fuel tax, both of which would require new legislation.

Our recommendations therefore focus on providing short-term funding certainty for the immediate investments, as well as providing long-term confidence.

A PACKAGE OF FUNDING SOURCES

To implement the Auckland Plan transport programme, a package of funding sources is the best approach. Raising the revenue through one funding source alone would make the level of charge or tax excessive. Using a package of funding sources, the burden of charges can be spread, reducing the financial impact on particular groups. This approach also ensures that those who benefit will contribute to the cost of funding, rather than one group paying while others enjoy the benefits.

KEY FINDING

A package of funding sources is required, as no existing or new mechanism would be sufficient or acceptable on its own.

DECISIONS BY 2015

A decision on how the funding gap will be filled, and when additional sources of funding will be in place, is needed by 2015 at the latest. A failure to make the right decisions early enough will leave Auckland without the certainty that it needs to begin the necessary transport improvements.

Without additional funding, Auckland Council and NZTA would be unable to commence the full Auckland Plan programme and some major projects would fall behind schedule. Before the council and the government can commit to making the required investments, or take on debt to cover them, they will need confidence that adequate funding will be available for as long as it is required.

Certainty will also be needed for the private sector to invest in appropriate intensification of development and planned greenfields initiatives to meet future demand for housing and business. The private sector needs to know that transport investments will be made in time to support planned new developments.

A decision by 2015 also provides the time required to put any new funding sources in place. We estimate that it could take five to seven years to implement some form of road pricing. This takes

into account the need for public consultation, legislation, detailed scheme design, construction and testing of necessary infrastructure. Securing the necessary commitment by 2015 would provide sufficient time to have additional funding in place to support the Auckland Plan programme.

The vast majority of submitters accept that 'doing nothing is not an option', and that a combination of funding sources would be required to fund Auckland's transport improvements. There was limited feedback on whether a decision is needed by 2015. However, respondents expressed their frustration that Auckland is still talking about its transport problems, rather than 'getting on and fixing them'. Taking this into account, we remain convinced that a package of funding sources is appropriate, and that 2015 is the critical decision-making deadline for the council and the government.

KEY FINDING

A decision on how and when the funding gap will be filled is needed by 2015 at the latest.

INTERIM FUNDING

Our recommendations are constrained by how quickly additional funding sources can be agreed and implemented. The need for immediate investment means that, in the short term, the funding gap will have to be filled by sources already available to us. Rates and fuel taxes are the main sources of existing transport funding. We need to start increasing the revenue generated from these sources immediately and sustain that commitment over time.

The funding gap commences in 2015 and progressively increases to 2021.

Rates and fuel taxes would have to match this increase. Small but regular increases are easier to accommodate than large one-off increases.

Rates increases of 0.5-0.6 per cent above existing levels would raise around \$7.5 million in 2015, but compounding increases at a similar level would raise around \$60 million per annum in 2021. Increases to fuel taxes of around 3.5 cents per litre would raise around \$35 million in 2015, while compounding increases could raise around \$200 million per annum in 2021. Annual increases at those levels would provide a major source of additional funding in the first decade.

Income from these sources is likely to be bolstered by increased public transport revenue arising from patronage growth. Public transport users will benefit from the investments. A greater contribution from them could be achieved through increasing fares, however overly-ambitious fare increases would have the perverse effect of encouraging people back into private motor vehicles.

KEY FINDING

From 2015 to 2021 (at the latest), the funding gap will need to be filled primarily by annual increases to rates and fuel taxes.

GOVERNMENT CONTRIBUTIONS

Many submitters expressed a willingness to take some responsibility for funding Auckland's transport needs, but they also expect a greater contribution from the council and the government. They believe that the council should reprioritise budgets and increase savings to pay for planned transport improvements.

Managing our existing transport system more efficiently is also a priority. Aucklanders want to get the best out of existing infrastructure before proceeding with new investments.

Auckland generates 38 per cent of national GDP, while 46 per cent of the country's exports/imports (by value) pass through Auckland Airport and the Ports of Auckland. Time that Aucklanders spend sitting in traffic is time that cannot be spent more productively elsewhere. Time that trucks spend sitting in traffic is costly for those doing business in Auckland, and importers and exporters who need to move goods through Auckland Airport and the Ports of Auckland.

International research shows that major cities determine overall national economic success. This is not only because they are large domestic markets for goods and services but they also improve productivity. This is a direct

result of the benefits that firms and people can access by being located close to one another. These benefits rely on ensuring that our most densely populated areas (for example, Auckland's city centre) are connected and easily accessible to employers, employees and customers.

Existing levels of government funding are insufficient to meet Auckland's future transport needs. Increased government funding would reflect the growing proportion of national GDP and tax revenue from Auckland. While Aucklanders seem to accept that as a city we should pay our 'fair share' the government should also be relied upon to meet similar obligations. This view was also expressed by submitters.

KEY FINDING

A greater contribution from the government is needed and warranted to ensure Auckland can deliver higher productivity and improved economic performance.

LONG-TERM CERTAINTY

To achieve long-term certainty, Auckland Council and the government will need to agree to ongoing and increasing levels of funding. The exact combination of rates and fuel taxes is an issue for Auckland Council, the government and the people of Auckland to work through. Some considerations will be the amount (and profile) of the final investment programme, and the funding available from existing and any other sources. The council and the government could choose smaller increases and greater borrowing if they know that a strong revenue stream will soon be introduced.

Together with reprioritising expenditure, increased government contributions and some borrowing, these sources could close the funding gap in the first decade. If the necessary increases are not implemented early enough, far larger increases will be required in later years or the programme of investment will not be delivered. Both of these outcomes would pass substantial costs to future generations.

KEY FINDING

To achieve long-term certainty, Auckland Council and the government will need to agree to ongoing and increasing levels of funding.

ASSESSMENT OF THE TWO OPTIONS

There were two options for funding Auckland's transport improvements that we presented in the discussion document. We also said either option would need to be implemented by 2021. The options were:

Option 1

Larger increases to rates and fuel taxes, tolls to fund major new roads, further government contributions and small fare increases for public transport users.

Option 2

The introduction of road pricing, supplemented by smaller increases to rates and fuel taxes, further government contributions and small fare increases for public transport users.

While raising similar levels of revenue, the two options had distinct features. Continued reliance on rates, fuel taxes, the tolling of major new roads and limited public transport fare increases provide a relatively simple way to fill Auckland's transport funding gap. These are existing sources of revenue, and rates and fuel taxes in particular are inexpensive to collect. No additional legislation is required to implement them.

We considered a regional fuel tax was more appropriate than increases to the national fuel tax. However, this would require new legislation and would cost slightly more to administer than the existing system. It would also result in a significant variation in fuel prices between Auckland and the rest of the country.

On the other hand, road pricing would be a new funding source. There would be an upfront investment required to establish the technology and infrastructure and it would entail substantial ongoing operational costs. A law change would be required. However, road pricing schemes have the added benefit of impacting on travel demand, helping to reduce the level of congestion on the roads, and improving travel speeds and journey times for motorists and freight. We also concluded that they must be supported by viable, attractive public transport alternatives.

Our evaluation of these two options against the screening criteria is shown in Table 2. Of the various road pricing schemes (see Appendix), the single cordon and motorway network schemes appear to provide the best balance of efficiency, fairness and transport outcomes, although more investigation is required.

Of the two options, submitters were overwhelmingly in support of Option 2. We received 1,025 responses in support of Option 2 and 187 responses in support of Option 1 (108 submitters chose neither option). We acknowledge that the responses to our discussion document do not constitute a representative sample.

It is likely that lower socio-economic groups and some parts of the region are under-represented in the feedback we received. Notwithstanding this, the overwhelming feedback in support of Option 2 suggests that Aucklanders are aware of our transport problems and support a solution that raises revenue and helps to manage congestion.

KEY FINDING

The feedback on our discussion document indicates demonstrable public support for road pricing.

Table 2

STRATEGIC ALIGNMENT OPTION 1 LESS IMPACT ON CONGESTION OPTION 2 GREATER DECONGESTION BENEFITS	The funding sources in Option 1 have a limited impact on congestion, as only fuel tax and tolls on new roads have a direct effect on people's travel choices. Even then, the impact is limited. Tolls on major new roads affect only a small proportion of the road network, and fuel taxes do not require motorists to question the time or value of their journey as they make it. Option 2 makes a stronger contribution to the Auckland Plan transport objectives, and to the National Land Transport Strategy, because it has a greater impact on congestion. The impact of road pricing on travel demand will depend on the level at which charges are set. A \$2 charge would have a noticeable impact on travel choices. A higher charge could have a more pronounced decongestion effect, but have negative impacts on particular groups and individuals.
REVENUE POTENTIAL OPTION 1 GREATER UNCERTAINTY BUT LOWER COLLECTION COSTS OPTION 2 MORE CERTAINTY BUT HIGHER COLLECTION COSTS	Both options have the potential to raise sufficient revenue to close the funding gap, provided that the necessary annual increases in rates and fuel taxes are implemented. Under Option 1, the limited diversity of revenue sources presents some uncertainties, particularly if annual increases from rates and fuel taxes are not implemented. Option 2 broadens the number of revenue sources and could off-set reduced fuel tax revenue resulting from more fuel efficient and electric vehicles. The amount of income from Option 2 will depend on the level of charge and the volume of traffic. Setting charges and projecting traffic volumes is difficult, as it involves a careful balance between revenue generation, travel demand management, and the best use of network infrastructure. Road pricing has higher administration costs than the sources in Option 1. The gross revenue collected under Option 2 will need to be higher to cover the administration costs.
ADMINISTRATIVE SIMPLICITY OPTION 1 EASIER AND MORE COST EFFECTIVE TO IMPLEMENT AND OPERATE OPTION 2 MORE COMPLEX AND COSTLY TO IMPLEMENT AND OPERATE	Option 1 is easier and more cost effective to implement and operate than Option 2. The funding sources (and the technology to support them) are already widely used in New Zealand. By contrast, Option 2 requires new infrastructure (such as a network of vehicle recognition sites). Under Option 1, the costs of collecting additional rates, fuel taxes and public transport fares are virtually zero, as the mechanisms already exist to do this. The cost of implementing tolls on two to three major new roads is around \$9 million, with estimated ongoing operating costs of between 50-69 cents per transaction. Under Option 2, the cost of implementing road pricing is \$69-\$94 million, depending on the design of the scheme implemented. Based on international experience the ongoing operating costs can be expected to be between 50-69 cents per transaction, but volume and efficiency savings could reduce these costs.

Table 2 (continued)

ECONOMIC EFFICIENCY OPTION 1 MORE ECONOMICALLY EFFICIENT DUE TO LOW COSTS, BUT LIMITED DECONGESTION BENEFITS OPTION 2 ECONOMICALLY EFFICIENT AND PROVIDES NOTICEABLE DECONGESTION BENEFITS	Option 1 has lower costs than Option 2, but does not provide as many travel benefits. However, it is efficient because the costs are comparable to the benefits received. The average household would face increased 'out of pocket' transport costs of around 70-75 cents per day (could be higher or lower for individual households). In return, they would receive travel-time savings valued at about 50 cents per day. Option 2 is also economically efficient and generates more benefits than Option 1. However, it has higher costs, which means that it is not as economically efficient. The exact costs and benefits of Option 2 depend greatly on the type of scheme. Under Option 2, the average household would face increased 'out of pocket' transport costs of between 80 cents and \$1.10 per day (depending on the type and design of the road pricing scheme). Again, this figure could be higher or lower for individual households. In return, the average household would receive travel-time savings valued at around 95 cents per day.
FAIRNESS OPTION 1 SPREADS THE BURDEN, BUT IMPACT OF TARGETED RATES AND TOLLS WOULD VARY OPTION 2 AFFECTS FREQUENT TRAVELLERS AND IMPACT OF SCHEMES WOULD VARY	Both options increase the cost of living and of doing business. This will significantly affect low-income households and businesses that cannot pass on additional costs to consumers. Both options have issues of fairness. Both alter the proportions which different groups contribute to transport funding. The total revenue collected is similar under each, but the impact falls differently. Option 1 will have a broad impact. All ratepayers, motorists, public transport users and tax payers would be affected. These groups all benefit directly or indirectly from transport improvements, but some more than others. Option 2 has a more targeted impact. The burden falls mostly on motorists, although ratepayers and taxpayers will feel some effects. This reflects the contribution of motorists to congestion, and the transport benefits they will receive. Option 1 has varied geographic impacts. Targeted rates would affect only some parts of the region. Tolling will affect travellers on tolled roads, but not those travelling from other parts of the region on roads which are equally congested. Under Option 2, the geographic impact depends on which road pricing scheme is implemented. A cordon scheme would mostly impact those who live and work close to the cordon and need to cross it. A motorway network scheme would have a more distributed geographic impact. It would deliver travel-time benefits to those paying the charges, but none for those who don't. Within each package, individual funding sources have inherent issues of fairness and unfairness.

FAIRNESS (CONTINUED)	Rates increases may not reflect a property owner's use of the transport system or their ability to pay but they do reflect benefits from higher property values and productivity benefits that could result from transport improvements. Fuel tax increases will affect some more than others. Some commuters and businesses may not be able adjust their travel behaviour to reduce the impact of higher fuel prices. The people affected most will be those whose livelihood depends upon multiple, lower paid jobs requiring travel at times of the day when public transport services are less frequent. The businesses most affected will be transport and logistics businesses, and mobile service providers that routinely travel between multiple clients. Road pricing will disproportionately affect frequent travellers who need to travel across the path of a road pricing boundary. This could be mitigated through the design of the scheme, capped daily charges, or reducing charges at some times of the day. For many, the reduced travel times and increased reliability that road pricing can offer will be worth paying for. For others (such as the 'time rich' but 'cash poor'), a lack of disposable income could see them taking longer but cheaper routes. Whichever option is chosen the cost will be felt more by those on lower incomes. Auckland Council and the government will need to find ways to mitigate these impacts.
ACCEPTANCE OPTION 1 ONLY REQUIRES LEGISLATION FOR A REGIONAL FUEL TAX BUT RELIES ON SUSTAINED POLITICAL COMMITMENT OPTION 2 REQUIRES LEGISLATION AND HAS POLITICAL AND PUBLIC ACCEPTABILITY CHALLENGES	Option 1 relies on a sustained commitment to annual increases to rates and fuel taxes by the council and the government. This could impact on long-term certainty of funding. Implementing a regional fuel tax would be inconsistent with legislation passed by Parliament in June this year which abolished the regional fuel tax provisions in the Land Transport Management Act. However, it would ensure that the rest of New Zealand does not 'subsidise' Auckland's transport system. Increasing national fuel tax would reflect Auckland's growing share of the national population and the economic benefits that its transport system provides to the rest of New Zealand. However, other regions could also perceive it as a 'subsidy' to Auckland. Option 2 involves the introduction of a new funding source (road pricing) in New Zealand and would present some political challenges. Although common overseas, the New Zealand public is not yet familiar with widespread road pricing – a significant shift in public opinion would be required in order to achieve political support for this. However, a road pricing scheme that provides motorists with greater travel benefits may gain some traction, provided charges remain at reasonable levels.

AFFORDABILITY

A significant number of Auckland households are on or near the poverty line and even small daily increases to transport costs will have a major impact on them.

Many submitters also expressed their concern about the affordability of new funding sources, and the impact that these could have on:

- ▶ low-income families
- ▶ city businesses and residents
- ▶ businesses that are unable to pass new costs onto consumers
- ▶ people who have a limited ability to alter their travel patterns to minimise exposure to new charges.

We have kept the issue of affordability firmly in mind when considering alternative funding sources. More in-depth analysis is required to understand the impacts that new or increased charges will have on families and businesses. As the detail of funding schemes is determined, close attention will need to be given to mitigating negative social and economic impacts.

Before deciding on the final funding pathway, it would be prudent to analyse the impact of increased costs.

KEY FINDING

Further analysis of affordability needs to be undertaken. Irrespective of the agreed funding sources, social and economic impacts on low-income households need to be addressed.

GOVERNANCE

Our process has not considered who should administer new funding sources. We have assumed that any new revenue would be used where it is needed.

Careful and fair stewardship of any new funding mechanism is vital to retaining public support and trust. Many of those who responded to our discussion document, for example, indicated that they expect any money collected to be used for the purpose for which it was raised.

The best stewardship arrangements will depend upon the nature of the funding source and the package chosen. However, we believe that the following principles should apply to any funding package.

- ▶ No 'taxation' without representation
- ▶ Taxes must be used for the purpose for which they were raised
- ▶ Financial decision-making should align with financial responsibility and ability to manage risk
- ▶ Financial decisions should align with relevant policy
- ▶ Transparency and accountability should be maintained
- ▶ High standards of integrity and risk assurance should be maintained, including independent audits

- ▶ Governance arrangements should be cost effective and simple
- ▶ Clarity of roles is essential
- ▶ Integrated or 'joined up' funding decisions are critical

We endorse the objective in the Auckland Plan of managing Auckland's transport networks as a single system. The system is jointly funded; state highways and the rail system are owned by the government and the local roads are owned by the council. History has taught us that strategic alignment between the government of the day and Auckland local government is rare. To make any real progress, there needs to be ongoing alignment between Auckland Council and the government to coordinate the strategy and funding of transport in Auckland for the next 30 years.

Transport is a key enabler of growth if it is provided in a timely and efficient manner. Planning for investment is guided by the council's Auckland Plan, Long-term Plan, the Unitary Plan, Auckland Transport's Integrated Transport Programme, the Government Policy Statement on Land Transport, and NZTA's National Land Transport Programme. As these plans and programmes evolve, it is essential that they align to deliver integrated transport and land use developments for Auckland.

KEY FINDINGS

- ▶ The governance arrangements for new funding sources must be consistent with the key principles stated.
- ▶ To achieve ongoing certainty, mechanisms are required to ensure Auckland Council and the government agree, and remain committed to funding and implementing Auckland's transport investment programme.
- ▶ The transport investment programme should be optimised with available funding and aligned with the growth and land use developments anticipated in the Auckland Plan and the Unitary Plan.



Section 5

CONCLUSIONS AND RECOMMENDATIONS

PRINCIPAL FINDING

Unless Aucklanders are prepared to accept significantly higher rates increases and heavier congestion, introducing some form of road pricing by 2021 will be required.

Public feedback has reinforced our view that a decision on how to bridge the funding gap is needed by 2015.

RECOMMENDATIONS

Our recommendations are:

- (1) That Auckland Council makes a decision by 2015 to pursue one of the funding pathways identified in recommendation (2).
- (2) That Auckland Council further investigates and introduces one of two alternative pathways for funding the transport gap:
  - (a) Primary reliance on rates, fuel taxes, tolls to fund major new roads and significant government contributions and increased fare revenue from public transport, with agreed annual increases to rates and fuel taxes commencing in 2015; or
  - (b) Initial increases in rates and fuel taxes and increased fare revenue from public transport commencing in 2015, followed by the introduction of some form of road pricing and additional government contributions.
- (3) That this investigation includes:
  - (a) Detailed work on the design and impacts of possible road pricing schemes, focussing on the single cordon and motorway network schemes
  - (b) Further analysis of the affordability and social impacts of the funding alternatives and ways to mitigate any adverse effects
  - (c) Analysis of possible governance and revenue administration arrangements.
- (4) That the following should not be pursued further as funding tools:
  - Regional lottery
  - Regional payroll tax
  - Regional GST/sales tax
  - Visitor bed tax
  - Departure tax
  - A levy on vehicles registered in Auckland
  - New forms of parking levies
  - Managed toll lanes
  - Tax increment financing/betterment
  - Double cordon
  - Area charging
  - Full-distance charging
- (5) That before imposing substantially greater transport costs on businesses and households, there should be increased investment in affordable and reliable transport alternatives in place. These should include improved public transport and a connected network of safe and attractive walking and cycling options.
- (6) That central government increases its funding for transport in Auckland, beyond what can be expected from the National Land Transport Fund, to reflect Auckland's growing population and its contribution to the national economy.
- (7) That mechanisms are established to achieve ongoing agreement between Auckland Council and the government to align the strategy and funding of transport in Auckland.
- (8) That Auckland Council works with Auckland Transport and the New Zealand Transport Agency to optimise the sequence and timing of the investment programme, and to ensure consistency with the Auckland Plan, Unitary Plan and the available funding.

Appendix

**FUNDING
SOURCES
CONSIDERED**

As part of our process, we considered in excess of 20 potential funding sources. In this appendix we provide greater detail about our findings in respect of individual sources.

The potential funding sources were assessed against high level screening criteria (Table 1, page 8), to first eliminate those with major flaws. The remaining sources were considered worthy of further consideration. By employing Auckland Council's transport model and an indicative economic analysis (following NZTA's economic evaluation framework), our assessment highlighted the practicality of the funding sources, the differences between them and their core issues and impacts.

We found that a package of funding sources is required as no new or existing funding source would be acceptable on its own. Our final assessment, which incorporates the feedback we received to our discussion paper, has resulted in two groups of funding sources:

1. Funding sources recommended for further consideration prior to a decision on which to implement.
2. Funding sources that should not be pursued further.

These funding sources are discussed separately.

1. FUNDING SOURCES RECOMMENDED FOR FURTHER CONSIDERATION

1.1 Fuel taxes

Petrol Excise Duty (PED or motor spirits excise duty) is a wholesale levy on all petrol sales charged on a cent per litre basis. It is a component of the retail price of petrol paid at the pump by motorists. The bulk of the PED goes to the National Land Transport Fund (50.524 cents), which (among other things) funds state highway activities, road policing, and is a source of funding made available to councils to assist with maintenance, renewals and improvements to local roads and public transport infrastructure.

The balance of the PED is allocated to ACC's Motor Vehicle Account (9.90 cents), Local Authorities Petroleum Tax (LAPT) (0.66 cents) and Petroleum or Engine Fuels Monitoring Levy (0.045 cents). The LAPT is a more direct source of funding to local authorities and is levied at the wholesale level on petrol and diesel under the Local Government Act 1974. Road User Charge (RUC) is a distance-based charge on diesel vehicles, set at a level relative to the PED. Revenue raised is also directed to the National Land Transport Fund.

We considered three ways that increased fuels taxes could raise the required level of funding: an increase to the PED directed to funding Auckland's transport programme, an additional fuel tax on fuel sold in the Auckland region – a regional fuel tax – and an increase in the LAPT. Both a regional fuel tax and an increase in the LAPT would require the introduction of enabling legislation and do not align with current government policy.

As an existing funding source, fuel taxes are part of the funding mix going forward and are likely to come under increasing pressure as technology improves the efficiency of petrol and diesel vehicles and with the increasing popularity of electric vehicles. An increase to the current PED is feasible, simple and capable of generating substantial revenue. It would also be possible to establish a regional allocation. An increase in the LAPT would achieve the same outcome, either nationally or regionally.

1.2 Rating-based sources:

1.2.1 Rates

'Rates' are the primary source of funding for local government activities in New Zealand. Rates are a form of property tax levied annually on the rateable value of land within local government boundaries.

Having determined their financial requirements, councils 'strike' the general rate as part of their Annual Plan (or every third year for Long-term Plan processes). Rates are calculated based on the value of land and/or a number of other factors. Rates can be determined by multiple factors, and activity-based differentials (ie business and residential use) can be applied.

The 'rates' bill can be made up of the general rate and other components – such as a uniform annual general charge and/or targeted rates. The systems that support their assessment and collection are long established. The associated operational and compliance costs are low and considerable effort is made to ensure affordability. Systems are in place for the provision of rates relief in the case of hardship.

We found that rates can be set to broadly match the spread of costs with the benefits of transport investment. Their complexity and cost were low, although they do not have significant demand management impacts. Unless an alternative funding source can be found, a greater burden of costs will fall on rates. Based on the public feedback we received, ongoing significant increases to rates would be unacceptable.

1.2.2 Targeted rates

Councils levy a targeted rate on a specific activity or group of activities. These 'activities' are identified through the process for setting rates. A targeted rate may be uniform or differentiated to reflect a service or benefit. For example, a uniform targeted rate may be set for all rateable land or defined categories of land. Alternatively, a differentiated targeted rate could be set across those parts of the Auckland region receiving public transport services where the level of rates broadly matches the level of service provided.

Auckland Council does not have a targeted rate for transport, although the former Auckland Regional Council used a targeted rate to help fund public transport, which raised about \$60m per annum. The level of the rate varied across the region to reflect the level of public transport services. The inner urban area paid about 1.25 times more than the wider metropolitan area, and lower rates were charged in Franklin, Rodney and Waiheke.

There are other potential funding sources that may be adapted to operate as a targeted rate. A targeted rate linked to parking levies may be able to be implemented, as could a targeted rate mimicking a visitor bed tax or an airport departure charge.

We found that targeted rates are capable of assigning the costs to where benefits are received, while still enjoying relatively low complexity and cost. As with rates, a targeted rate does not have strong traffic demand management impacts and their acceptability will reduce as their financial impact increases.

1.3 Road pricing

Road pricing offers significant potential to deliver the additional revenue. The charge can be set at a fixed rate per trip or at a variable rate, to reflect the time of day or level of congestion. A fixed position camera automatically scanning the license plates of vehicles as they pass was considered as the basis for electronic charging. Legislative change would be required to enable their introduction and we found some acknowledgement from the government (Treasury's National Infrastructure Plan, 2011) that some form of road pricing will be required to manage future travel demand in Auckland. To implement some form of road pricing more detailed analysis and assessment would be required.

1.3.1 Single cordon

Under this form of road pricing, motorists are charged for passing through a cordon, or for travelling into or out of a specified area. There is no charge for moving around within the

cordoned area. It is possible to cap the maximum amount charged within a 24-hour period.

We considered a cordon with tolling points covering approaches from the north, east, south and west on major local roads/arterials and the motorways. The cordon would encompass the city centre and the city fringe.

Depending on the level of charges, a single cordon could raise significant revenue and deliver substantial demand management benefits. Our assessment showed that carefully priced cordon charges can result in the significant diversion of vehicle trips onto public transport and improved peak-period traffic flow on key parts of the network. Accessibility to the city centre increases with positive implications for productivity. Notably, the rate of decline in morning peak-hour travel times reduces, relative to the impact achieved from other funding sources. The high administrative and transaction costs are contained relative to other types of road pricing schemes. Motorists travelling to the city centre were the most affected, however providing suitable public transport alternatives could offset any adverse impacts. Fairness and equity issues would need to be addressed as part of the detailed design.

1.3.2 Motorway network

Under this form of road pricing, motorists would be charged upon entry to (or exit from) the motorway network. The charge could be varied by time of day or to reflect varying levels of congestion. It is possible to cap the maximum amount charged within a 24-hour period.

This funding source has high revenue potential, provided operating costs are kept to a minimum and the traffic volumes likely to pass through charging points have been estimated correctly. However, implementation could be more complex and costly than increases to existing funding sources, because of the need for legislation and the logistics of design and construction. This would delay the availability of revenue.

A motorway network charge offers substantial transport benefits. Of all the funding sources that we considered, it results in the highest increases in average speeds on the motorway network during morning peak traffic. It also slows the rate at which the flow of motorway traffic is predicted to break down as Auckland's population grows. Of all the sources we considered, it is the most likely to keep motorway traffic flowing freely well into the future and is also likely to provide the highest level of economic benefits.

Motorway network charges are user pays. They target those who contribute to congestion but also provide demonstrable transport benefits to those paying the charge. We have assumed improvements to public transport and local roads to ensure that motorists have other high-quality and low-cost travel choices available to them.

1.4 Tolls on new roads

A toll is a charge on motorists who cross a fixed point along a roadway. Tolls generally relate to an individual road or stretch of road, like the 'Northern Gateway'. Tolling is currently authorised on new roads where an alternative toll free route is available and we concluded that this funding source could continue to play a roll in future.

2. FUNDING SOURCES THAT SHOULD NOT BE PURSUED FURTHER

2.1 Regional lottery

Lotteries are common internationally with monies earned being distributed as community grants or to supplement taxes. Mostly under the authority of government, lotteries are operated by both governmental and private operators. Under the Australian, Canadian and USA federal systems, lotteries have been established at the state/territory level. An Auckland regional lottery could be

established with the earnings and prize money being applied to funding the region's transport initiatives.

Lotteries are a form of gambling and regulated in New Zealand under the Gambling Act 2003. The New Zealand Lotteries Foundation (NZ Lotteries) operates a national franchise with seven offerings – Lotto, Powerball, Strike, Big Wednesday, Keno, Bullseye, and Instant Kiwi. Of total sales revenue of \$903.8 million for the 2012 financial year, the sum of \$190.4 million (or 20 per cent) was provided to the NZ Lottery Grants Board for community distributions after NZ Lotteries' outgoings (including taxes – GST, gambling duty and Problem Gambling Levy).

We anticipated that the costs of establishing and promoting a new, stand-alone regional lottery would be high and that the majority of these costs would be incurred before the first tickets were sold. Significant revenue would need to be generated in order to derive a meaningful contribution towards the funding gap.

There is also a major risk that any new lottery would either 'cannibalise' the revenue of rivals, including Lotto and the other offerings of NZ Lotteries, or perpetuate problem gambling.

It is likely that local government, in effect operating a gambling operation, would raise moral and ethical concerns (particularly in regard to social costs). There is also the potential for a conflict of interest where local government assumes a regulatory role via its own bylaws. We found no connection between the motivation to purchase a lottery ticket and addressing Auckland's transport issues therefore this funding source provides no link between those who pay and those who benefit.

For these reasons we agreed that a regional lottery did not merit further consideration.

2.2 Regional payroll tax

The closest examples of a payroll tax are those levied by state and territorial governments in Australia. The tax is paid by employers on the total wages of their employees once it exceeds an 'exemption threshold'. For example, 2011 payroll tax rates in Australian states were between 4.75 per cent (with a threshold of one million per annum in Queensland), and 6.85 per cent

(with a threshold of 1.5 million pa in Australian Capital Territory). This equates to an average 5.5 per cent tax rate and average threshold of \$912,250.

A payroll tax is not a simple tax. Working out the relevant rates and thresholds is a complex area. One of the key features of New Zealand business is the high number of employers with very few employees. For example, there are more than 170,000 firms and approximately 691,000 employees in the Auckland Region,¹ averaging four employees per firm.² Comprehensive analysis of Auckland businesses would be required to devise a payroll tax scheme that would raise the sort of revenue that is required while remaining simple enough to administer. Given this complexity, the potential revenue from a payroll tax was not estimated.

Enabling legislation would be required for a payroll tax and collection could only be effective if undertaken in collaboration with the Inland Revenue Department (IRD) in parallel with PAYE tax on wages and salaries. Such a tax is anticipated to involve moderate to high implementation costs and ongoing operating costs would also be considerable. Compliance costs could be significant depending on the tax rate, how it is applied and the level of the threshold.

¹ Source: Household Labour Force Survey, September quarter 2012, Statistics New Zealand.

² Source: Business Demographics survey, March 2012, Statistics New Zealand.

Labour-intensive businesses would also be disproportionately impacted. In the worst-case scenario, a payroll tax could have a negative impact on the demand for labour.

We considered the introduction of a payroll tax could have implications for the taxation system, considerably beyond transport funding issues in Auckland. There would likely be impacts on other key government taxes, including PAYE and a payroll tax would be inconsistent with government policy. Potential uneven impacts on businesses (depending on their labour content, establishment and ongoing operating costs, together with cross boundary issues), could give rise to distortions and inefficiencies.

We concluded that a payroll tax would have implications far beyond Auckland transport by encroaching on government taxation policy, imposing unintended costs and risking perverse outcomes, and merited no further consideration.

2.3 Regional GST/sales tax

Sales taxes are common internationally at different levels of government. They are collected on individual transactions at point of sale by the vendor. The idea involved two possible variations. An allocation of the government's

GST revenue to Auckland based on a share of retail sales, or the introduction of an additional regional tax for Auckland. Though technically feasible there are currently no regional sales or value added taxes in NZ and its introduction would require a law change.

A regional GST could be administered by individual transactions being liable for the tax based on the location where the good or service was purchased. In 2011, actual retail sales in the Auckland region were just over \$23b³ excluding GST. A regional GST of just one per cent would therefore represent significant revenue of around \$230m. Broad base taxes like GST are able to provide reliable revenue over normal economic fluctuations and are relatively simple, however a regional application would introduce a level of complexity.

The simplest approach would be an allocation of GST revenue to Auckland, based on a share of retail sales. This would be technically easy to implement but would erode the government's tax base. A more complex solution would be to implement a new regional tax that would operate within the existing IRD framework. Implementation, compliance and ongoing operational costs of a regional GST would be widely distributed

but fall disproportionately on businesses, with increased complexity in GST analysis and reporting. There would be significant costs to businesses to establish systems of accounting for transactions by their location especially those that operate within the Auckland region. It is also likely that any rules required to determine whether a particular transaction was liable for the tax would be complex.

The government has not been supportive of local or regional sales taxes in the past as they could undermine the national consistency of GST, raise potential border issues, and increase administration costs. The government-sponsored Tax Working Group did not recommend the introduction of local sales taxes, considering GST to be an effective system.⁴

We agreed that although a regional sales tax or regional allocation of GST would be an efficient means of raising revenue, the issues raised by its introduction extend beyond Auckland's transport issues, encroaching upon government taxation policy.

We agreed a regional sales tax or variation on GST did not merit further consideration.

³ Source: Retail Trade Survey: June 2012 quarter, Statistics New Zealand.

⁴ Victoria University of Wellington Tax Working Group (January 2010), A Tax System for New Zealand's Future.

2.4 Tax increment financing and betterment

Tax incremental financing (TIF) and betterment are examples of value capture mechanisms. They seek a portion of the increase in the value of land resulting from public investment in infrastructure or improvements, or from the granting of development rights that enable higher value land use. These mechanisms rely on the ability to fairly assess the changes in property values resulting from the investments.

TIFs are employed in some overseas jurisdictions⁵ where a discrete area benefits from new infrastructure investment or other improvements, thereby increasing the value of land. Under a TIF scheme the increase in value is taxed, raising revenue to pay for the infrastructure or other improvements. TIF schemes apply to a defined area, corresponding to the area of benefit (the area that enjoys increased land values) where the beneficiaries of the investment or improvements bear the burden of the increased land tax. TIF schemes typically run for 20 to 25 years.

Betterment is a related approach where the increased value of land (due to either improvements or the granting of development rights) is captured. Betterment reflects the gain derived from land being allocated or granted

an increase in development rights. For example, rezoning of rural land to urban or the ‘upzoning’ of urban land to higher-value land uses. This has been in use in the United Kingdom since the 1940s.

TIFs and betterment schemes can be fair and efficient, with the ability to moderate operating and compliance costs. We found that they neither support nor undermine the council’s strategic goals, and they have no direct influence upon the demand for transport. Their compatibility with existing tools would have to be carefully considered in the context of their design and use.

The common issue with TIF/betterment is the extent to which the increased value of land can be estimated and attributed to the public investment. Although many factors can influence the value of property, the TIF or betterment scheme needs to isolate the potential increase in property value attributable to the public expenditure on infrastructure or the granting of development rights.

Neither TIF nor betterment funding tools are currently available to local government under New Zealand legislation, although some interest has been shown.⁶ In the absence of specific

legislation, Price Waterhouse Cooper (PWC) suggest that a council could apply a targeted rate to a similar end with the rate estimated on the value of the increase, using valuations pre and post the investment.

We considered that the complexity of the approach, and the difficulty of estimating and attributing increases in property values were important issues that would be need to be dealt with carefully. We concluded that this sort of tool would be better used to fund urban renewal initiatives, or defined projects with a particular geographic impact, rather than broader improvements to the transport system. For these reasons we were not in favour of pursuing these approaches further, agreeing to consider possible uses of targeted rates instead.

2.5 Visitor bed tax

A bed tax is a charge levied on providers of commercial accommodation within an area based on the number of guests they have. This acts as a proxy for the amount of public services guests consume. They are most commonly charged on a ‘per visitor, per night’ basis ensuring that visitors who spend more time in the area, and use more public services, contribute more.

⁵ Primarily USA, though there has been interest in Scotland and Australia.

⁶ Could Urban Renewal Funding Work here? J Langley, M Hali, Planning Quarterly, December 2011. Also, New Funding Strategies for Urban Renewal, J Langley, accessed from www.planning.org.nz.

A visitor bed tax could be charged on accommodation providers across the Auckland region or parts of the region, at fixed or variable rates.

Use of bed taxes overseas is often associated with a particular development. It is common to use bed taxes to contribute to the development and operation of convention centres where the commercial accommodation sector directly benefits from the activity that the convention centre attracts.

A visitor bed is a relatively simple tax, although it would fall solely on commercial accommodation providers. Implementation, as well as operational and compliance costs, are anticipated to be low compared to other potential funding sources, however we noted that the introduction of a visitor bed tax would require investment in accounting and reporting systems.

There were approximately 6.26 million commercial accommodation nights in Auckland during 2011.⁷ If we were to assume 70 per cent of those were in the CBD, a visitor bed tax of \$2 per guest, per night, could provide revenue of:

- ▶ \$12.5m per annum (region wide)
- ▶ \$8.7m per annum for the city centre

Commercial accommodation charges vary between a \$20-\$30 charge that might apply to a backpacker, and hundreds of dollars per night at an exclusive hotel. The impact of such a bed tax varies greatly between types of accommodation. Assuming that the level of the charge will be limited by the potential impact of the charge on the low cost end of the market, the potential revenue from a bed tax is low in comparison with the other potential funding sources we considered.

We found that revenue would fluctuate with the seasons (particularly inbound tourism), world events and the global economy. The efficiency of a visitor bed tax will vary across the different types of commercial accommodation and between Auckland-wide and/or area specific applications. A significant charge on visitors staying in an area could also precipitate a change in behaviour in response to the increased cost of staying there.

A visitor bed tax is not designed to achieve strategic, urban-form related goals nor influence travel demand. Such a tax may be contrary to Auckland's goals as a tourism destination and is unlikely to find favour with the government. Bed taxes are a form of sales tax and require empowering legislation to enable local authorities to utilise this tool. While legislation would be

required to implement a bed tax, it would be possible to approximate a bed tax through the use of a targeted rate on commercial accommodation providers.

We were concerned about whether the alignment of benefits with contributions was strong enough, as a bed tax will target tourists rather than the primary beneficiaries of the investment in transport. Noting the relatively low revenue potential and the lack of alignment with government policy, we concluded that a bed tax to fund transport improvements did not merit further consideration.

2.6 Departure tax

A departure tax is levied on people leaving a specified area, typically as a fixed charge paid by every person departing. We considered the possible introduction of a departure tax on passengers departing from Auckland International Airport (AIAL) on domestic and international flights, and from Ports of Auckland (POAL) on cruise ships.

Local authorities are unable to levy a departure tax and enabling legislation would be required.

Assuming two million international departures per annum from AIAL⁸ a \$20-\$25 departure tax could raise \$40-\$50 million per annum.

⁷ Ministry of Economic Development, Commercial accommodation monitor: December 2011

⁸ Based on international movements for the year to December 2012 (AIA, Monthly Traffic Update, December 2012) less annual international arrivals to November 2012 (Statistics NZ).

It could be further supplemented by a domestic departure tax (\$5-\$10), potentially raising \$8.8-\$17.9 million. A departure tax on cruise ship departures was found to raise minimal revenue and be more complex.

We decided not to proceed with further consideration of a departure tax (despite the revenue potential) because of the poor alignment between those who pay and those who benefit. A departure tax poorly aligns with the council's strategic goals, and would have limited impact on travel demand across and around Auckland. Legislation would also be required, which could meet strong opposition as recent indications suggest it is unlikely to align with government policy. We did consider that to the extent that the airport benefits from specific projects or contributes to the need for particular investment it would be appropriate to consider a targeted rate designed to reflect that benefit. However, there is no reason to treat the airport differently from other major business activities that may benefit from the transport programme. There is considerable flexibility within rating legislation to use targeted rates to ensure that those who benefit from or drive the need for expenditure contribute financially.

2.7 Levy on vehicles registered in Auckland

Vehicles used on New Zealand roads must be registered, requiring payment of Motor Vehicle Registration (MVR) fees. Under this proposal an additional charge could be added to existing MVR fees, for vehicles registered in Auckland, with the additional revenue raised, being specifically for funding transport initiatives in Auckland.

From July 2009 to June 2012 the MVR contributed \$516 million (approx. \$170 million per annum) to the National Land Transport Fund (NLTF) of which around one third was raised from Auckland. Not all money raised by the MVR is paid to the NLTF, as a significant portion goes to ACC.

Collecting funding from this source would require the identification of vehicles registered in Auckland, the technology to charge differentially on the basis of geography, and legislative change. With some 800,000 vehicles in Auckland and an additional charge of \$100 per vehicle, theoretically this funding source could raise \$80 million per annum, assuming all vehicles are licensed and evasion is limited. There would be considerable scope for business and those with residential addresses outside Auckland to avoid the charge by registering

vehicles outside of Auckland. There is little indication that this source of funding would have any impact on travel demand management. Conversely, it may result in those who travel regularly being charged a disproportionately small share of the costs.

We agreed that a regional vehicle registration levy for Auckland lacks alignment with government policy, would be subject to significant avoidance, and provides a poor connection between those who pay and those who benefit. Therefore, we did not consider this funding source any further.

2.8 New forms of parking levies

There are two versions of parking levies available for Auckland. The first could be by increasing charges for the use of Auckland Transport's on and off-street parking. With this option, charges would need to increase substantially to raise the amount of revenue required to have any real impact on the funding gap. However, competition from private car parking providers is likely to limit the revenue-raising potential of this option. Therefore, we did not consider it further.

The alternative approach would be charging a levy on all parking spaces within a defined area,

including all public and private car parking spaces in residential and commercial buildings and on the street. This is similar to the model operating in some Australian cities. However, these levies are primarily aimed at managing demand and encouraging mode shift in congested areas rather than raising revenue.

This approach has an associated level of complexity. Depending on whether it targets the owner of the vehicle or the owner of parking space, it still requires the processing of additional information through either the existing rating system or a new system that would need to be established. Accordingly, these variables will influence the establishment, compliance, enforcement and ongoing operational costs.

We decided that the level of complexity, operational and enforcement issues, the link to parking policy and the modest net revenue raised, meant that this potential source was not as attractive as the other funding sources we considered. Even so, it remains possible that further investigations of this option could occur within the context of targeted rates.

2.9 Managed toll roads

A form of road pricing, managed toll lanes are designated lanes (usually on a motorway or major arterial road) with access limited to those motorists who pay a toll. Managed toll lanes can be delineated physically through barriers or grade separation or notionally, through the use of signage or road surface treatments. The toll charged can vary according to the level of congestion the motorist is able to avoid by using the toll lane.

Toll lane schemes are currently operated in California (SR91 and I-15 Fast-Track), where between four and twelve lanes are reserved for toll paying customers. The prices vary depending on the level of congestion on the free lane compared to the toll lane.

There has been only limited analysis of tolled lanes in New Zealand. The most relevant piece of work is a 2012 study conducted by NZTA, which explored the potential to restrict use of certain lanes to particular types of traffic. That study highlighted significant practical issues with managed lanes, which would also be applicable in the context of toll lanes. Tolled lanes could be configured as curbside lanes, separated from other lanes by painted white lines, or grade-separated lanes in the middle of the road (the preferred option in the NZTA study).

We found that introducing toll lanes into Auckland poses significant safety and logistical challenges. Specifically, the current configuration of State Highways and arterials (with the high number of entry and exit points) would make it difficult for traffic to safely weave in and out of managed lanes. Addressing these issues by retrofitting entries and exits could be costly and complex.

We also found that toll lanes may have unintended transport impacts. Initially, some motorists will shift onto the faster tolled lane, freeing up capacity on un-tolled lanes. Travellers, who previously used alternative routes or other modes of transport, may be attracted to take advantage of the lower levels of congestion on un-tolled lanes, and return to travelling by vehicle, soaking up capacity made available by toll lanes. Traffic is also likely to become congested at entry and exit points where vehicles merge with non-tolled traffic moving across onto other routes.

The potential revenue from tolled lanes is uncertain and likely to fluctuate at different times of the year. This happens because use of the toll lanes will only occur when the un-tolled lanes are congested, or result in unreliable journey times for motorists.

We decided not to assess toll lanes any further due to the practical and safety issues with their implementation and operation, the high cost and complexity, the uncertainty of revenue and their potential for perverse travel demand impacts.

2.10 Area charging

A form of road pricing, area charging schemes charge motorists when they pass through a 'cordon' into or out of a defined area and for driving around within that area. One of the better known international examples is the London congestion charge.

We found an area charge could produce many of the same transport benefits as a single cordon scheme and raise sufficient revenue for our purposes. However, an area charge would be considerably more complex and costly to implement and administer than a single cordon because charging points would be needed inside the charging area, as well as at the entry points.

An area charge would disproportionately impact on the households and businesses located within the area, raising issues of fairness, equity and the alignment of benefits with those who would bear the costs. Any exemptions for residents would add additional costs and complexity to the administration of the scheme.

2.11 Double cordon

A double cordon is a form of road pricing where two 'cordons' - an inner cordon (closer to the city centre) and an outer cordon (further out) would be established. We considered an outer cordon with tolling points covering approaches to the Auckland isthmus from the north, east, south and west on major local roads/arterials and the motorways and an inner cordon that ran as a loop around the middle of Auckland isthmus along St Lukes Road, Balmoral Road, Greenlane Road and Orakei Road. Motorists would be charged each time they pass a tolling point, though it is possible to cap the maximum amount charged within a 24-hour period.

We found that a double cordon has relatively good revenue potential and could deliver the greatest demand management benefits of any scheme. However, this scheme would be significantly more costly to implement and operate than other schemes, as it requires a greater number of charging points and transactions than a single cordon scheme. We found that a higher proportion of the gross revenue is lost to collection costs than for other road pricing schemes.

We also noted that there were significant fairness and equity issues associated with a double cordon where travellers having to

cross both cordons experience a disproportionate impact. Therefore, we did not consider it further.

2.12 Full distance charging

Under this form of road pricing, motorists would be charged for their use of the road network per kilometre travelled, at the time that their journey is made. Heavily reliant on GPS and other in-vehicle satellite technology, it is anticipated that it would utilise 'smart' systems, able to alter charges in response to the time of day, route travelled, level of congestion, type of vehicle and potentially a number of other variables.

We were particularly interested in this form of road pricing as it offers the greatest ability to ensure individual benefits that match individual costs, thereby mitigating potential adverse impacts. As technology evolves this becomes increasingly feasible.

We made the pragmatic decision not to pursue full distance charging schemes at this time because of the scale and complexity of the approach, the limitations and cost of current technology, and the unproven nature and impact of such a scheme over such a large area with so many vehicles and people. However, full distance charging may have potential in the medium to longer term.

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