



# Integrated land use and transport planning

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## Errata

### 7 March 2023 – Changes were made to the following:

- Pg 9, Executive summary, Policy stocktake, bullet 7
- Pg 10, First paragraph, last sentence
- Pg 10, Executive summary, Conclusions and recommendations, bullet 2
- Pg 11, Executive summary, Conclusions and recommendations, bullet 7
- Pg 12, Abstract, bullets 13 and 16
- Pg 37, Section 4.2 Integration in national legislation, Plans and strategies, Highlights, bullet 6
- Pg 37, Table 4.1, Local Government Act
- Pg 39, Section 4.2.3.1 Tension between differing legislative objectives, first two paragraphs
- Pg 41, Section 4.2.3.5 GPS-LT maintenance activity class/LGA level-of-service standards
- Pg 42, Table 4.3 Barriers to integration caused by the LTMA and LGA, two bottom barriers
- Pg 42, Section 4.2.3.5 GPS-LT maintenance activity class/LGA level-of-service standards, continued after Table 4.3
- Pgs 44-47, tables 4.5 & 4.6 & 4.7 and description text in preceding paragraphs
- Pg 46, Paragraph 1
- Pg 47, Table 4.7 Analysis summary: Hamilton territorial authority documents, Hamilton Long Term Plan 2021–2031
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- Pg 54, Section 4.3.2.2 Auckland, General observations – Auckland, final paragraph
- Pg 67, Section 6 Conclusions and recommendations, Table 6.1 Barriers to integrated land use and transport planning in Aotearoa New Zealand, second barrier ‘Tension between policy and legislated requirements’
- Pg 70, Section 6.4, 1st paragraph
- Pg 70, Section 6.4 Improve monitoring, evaluation, and accountability, recommendation 13
- Pg 72, Section 6.7 Update the Local Government Act, text and recommendations 20 and 21
- Pg 81, Appendix A, Section A.1.2 Local Government Act 2002
- Pg 91, Appendix B, 1st paragraph
- Pg 96, Appendix B, Table B.3 Territorial authority level planning stocktake - Hamilton, 2021-2031 Long Term Plan, comments
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## Abbreviations and acronyms

ATAP	Auckland Transport Alignment Project
GPS-HUD	Government Policy Statement on Housing and Urban Development
GPS-LT	Government Policy Statement on Land Transport
LGA	Local Government Act 2002
LTMA	Land Transport Management Act 2003
NPS-UD	National Policy Statement on Urban Development
ONF	One Network Framework
ONRC	One Network Road Classification
RITS	Regional Infrastructure Technical Specifications
RLTP	regional land transport plan
RPTP	regional public transport plan
RMA	Resource Management Act 1991
TOD	transit-oriented development
UGA	Urban Growth Agenda

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## Executive summary

Land use and transport have always been linked. Well-integrated land use and transport planning improves peoples' access to the things they need and want to live a good life. Traditional land use and transport planning has sought to do this by increasing mobility through car travel. This has led to unintended negative environmental, social, health and equity consequences. Increased auto-mobility has not necessarily led to better access. In fact, reliance on private vehicles has increased the distances that people must travel to reach common services and activities, reduced travel options (particularly for non-drivers), and exacerbated traffic congestion, which together have reduced overall accessibility for many people and locations.

This research explores integrated land use and transport planning in Aotearoa New Zealand in 2022. We define integrated land use and transport planning as policy and practice that:

- considers the interconnected nature of the two and their effects on one another
- has a goal of improving housing supply, choice and affordability
- has a goal of decreasing reliance on private vehicles by reducing the need to travel and increasing the provision of and access to public transport, walking and cycling.

This definition requires moving away from simply improving mobility by providing for private vehicles, towards an outcomes-based approach that improves access using both land use and transport interventions in an integrated manner and safeguards the wellbeing of people and the environment.

The methods included:

- a literature review of tools used to achieve integration, and the environmental, social, health and equity benefits of doing so – this included identifying approaches used overseas that could be implemented in Aotearoa New Zealand
- a stocktake of domestic policy to identify policies, legislation, levers and data that create barriers or provide opportunities for achieving integration within our current legislative and policy environment
- interviews with planning professionals working in the public sector to identify the current state of integration, barriers and opportunities.

The findings are outlined below.

## Literature review

The literature review uncovered two types of tools for the successful integration of land use planning and transport planning – system settings and outcomes tools.

- **System settings** are institutional frameworks and processes that support integration and include governance and organisational structures. System settings facilitate or specify outcomes tools.
- **Outcomes tools** are specific development and design concepts, such as transit-oriented development, compact design, and mixed-use development. These tools are used to achieve a particular outcome. Although they can be used in isolation, they need effective system settings in place to be used consistently to meet strategic goals.

The literature review also discusses the following environmental, social, health and equity benefits that arise from integrated land use and transport planning.

- Environmental
  - Reduced greenhouse gas emissions through:
    - high public transport mode share



- higher densities
- mixed-use development
- transit-oriented development
- reduced sprawl
- Social
  - Improved quality of life through improved access to essential services, employment and education, as well as greater social vibrancy
- Health
  - Covid-19 resilience
  - Active transport health benefits (including mental health)
- Equity
  - Improved access for low-income communities
  - Affordable housing supported by transport choice

## Policy stocktake

We focused on the Resource Management Act 1991 (RMA), Local Government Act 2002 (LGA) and Land Transport Management Act 2003 (LTMA) to clarify the policies, plans and procedures that form the existing planning context in New Zealand. We consider the Acts themselves and the policies and plans prepared under each Act.

At the national level we found:

- The message from government is that land use planning and transport planning need to be integrated and that the existing road and street network is not fit for purpose.
- The land use and transport planning legislative framework system is very complex.
- There is significant discretion given to local authorities in terms of how much integrated planning they do and the quality of the planning.
- This complexity, together with the significant levels of discretion given to local authorities, means a strong shared understanding of integrated land use and transport planning is needed if integration is to be achieved.
- There is a risk that government agencies are working in an uncoordinated way that undermines land use and transport planning.
- Political and consultation processes can hinder projects that would support the integration of land use planning and transport planning.
- The LGA performance measures set by the Secretary for Local Government present an opportunity to improve outcomes. These measures could be revised to encourage local authorities to move away from conventional street design standards as a measure for success, and towards prioritising active mode and public transport level of service improvements.
- The segregated activity classes defined by the Government Policy Statement on Land Transport and the associated Waka Kotahi NZ Transport Agency funding processes also contribute to a status quo bias through the 'maintenance' classes. These classes required funds to be used in a 'like for like' approach rather than a 'dig once' approach that would combine renewal works with improvements in active mode and public transport levels of service to meet strategic objectives. This can increase the total combined cost of renewals and improvements, increase disruptions duration and/or delay improvements.

- The direction under the LGA, the LTMA, and the RMA is sometimes not aligned.
- Good spatial planning underpinned by a strong and directive spatial strategy, which includes the key indicators for successful integrated planning, is one of the important prerequisites to achieving integrated land use and transport planning in the future.

The policy stocktake of Hamilton and Auckland provides a high-level understanding of how national policy is incorporated at the local level. These cities were chosen for their different sizes and give a comparison between the two government structures – a regional council with a territorial authority versus a unitary authority with a separate transport council-controlled organisation. We examined regional and territorial policy and planning documents and give examples of recent decisions in each city showing how policy constraints identified in the stocktake may have compounded to produce land use and transport decisions that are not achieving integrated outcomes. Overall, Hamilton displays better horizontal integration between land use planning and transport planning, while Auckland shows better vertical integration across regional and territorial authority level policy.

## Interviews with planning professionals

We conducted interviews with six planning professionals to gain a deeper understanding of how integrated land use and transport planning is, or is not, occurring in practice. Interviews were conducted with professionals from Kāinga Ora, Waikato Regional Council, Waka Kotahi, Hamilton City Council and Auckland Council. The main points raised in the interviews were as follows.

- Interagency and interpersonal relationships are key to enabling land use and transport integration at all levels of government.
- There is optimism about the general direction of national government policy, and confidence that with some changes, integrated land use and transport outcomes can be achieved.
- Silos between land use and transport departments affect integration at all levels of government.
- Key barriers to integrating land use planning and transport planning include government structures, local authority capacity, politics, funding, and business-as-usual mindsets.
- Key opportunities for future integration include Aotearoa New Zealand’s general policy direction, resource management reform, and making better use of funding to direct land use and transport outcomes.
- Kāinga Ora, supported by Waka Kotahi as the lead delivery agency for transport, has a unique role to play in supporting integrated land use and transport planning in Aotearoa New Zealand.

## Conclusions and recommendations

We have identified several crucial barriers to good integrated land use and transport planning outcomes, shown in the following table.

Barrier	Description
Status quo bias	There is strong status quo bias, both built into legislation and planning processes, and in the approaches taken by the people actioning them. This has a tendency to override strategic direction and best practice.
Tension between policy and legislated requirements	There is tension between some legislated requirements and national government policy. In particular, the LTMA maintenance activity classes and LGA performance measure reporting, resulting in a ‘like for like’ replacement approach. Improvements cannot be made using maintenance activity classes. This presents a missed opportunity for improving the integration of land use and transport during routine maintenance and renewals because

	<p>there is an inability to take advantage of these works to make strategic improvements with an efficient ‘dig once’ approach.</p> <p>This undermines the potential success of more recent policies and plans like the Government Policy Statement on Land Transport, the Government Policy Statement on Housing and Urban Development, Road to Zero, and Keeping Cities Moving, which rely on large parts of the existing street network being improved to provide higher levels of service and safety for active modes and public transport.</p>
Complexity of existing framework	Our land use and transport planning framework is complex. The LGA, RMA and LTMA each require the preparation of national government policy and several levels of local authority plans. These policies and plans are often prepared independently, and in the case of local authorities are subject to a significant level of discretion and political influence to cater for local community self-determination, so the various plans do not always integrate well.
Inconsistent quality of local government strategic planning	The extent and robustness of local government strategic transport planning is not mandated by legislation.
Uncoordinated national government policies and legislation	The tensions and lack of integration between different legislation and policies can lead to national government agencies working in an uncoordinated way. This then influences local authority planning, where inconsistent decisions are made depending on which legislative process is the focus behind the decision.
Capacity challenges at local government level	Capacity challenges at the local government level combined with broad discretion and frequent reforms mean the integration of land use planning and transport planning may not be a priority. Where it is a priority, councils may not have the right capabilities in-house. These challenges are exaggerated where local governments disagree with the direction set by central government.

To address these barriers, we provide several recommendations in chapter 6 of this report:

- **Develop a shared understanding of integration** by including a consistent definition in national-level policy and guidance for local governments.
- **Improve practitioner and public understanding** of integration through pan-disciplinary education, professional development and the development of educational resources for the public.
- **Coordinate national government’s approach** by partnering with other government agencies to resolve inconsistencies in legislation, policies or approaches.
- **Improve monitoring, evaluation and accountability** through funding mechanisms, changes to the LGA, and legislating minimum parameters for good land use and transport planning.
- **Support integrating relationships** between Waka Kotahi and other agencies through secondments, and between Waka Kotahi and local authorities through funding.
- **Leverage resource management and local government reforms** to reduce complexity in the planning system.
- **Review the LGA performance measures** to encourage combining street renewals and improvements, which should be rolled out in an integrated and prioritised way at the territorial authority level. Consider shifting to an outcomes-based approach, such as transport mode split or vehicle kilometres travelled, rather than deliverables-based measures that audit but do not advance the outcomes set forth in policy.
- **Conduct further research** to understand international policy, legislative and governance frameworks, funding mechanisms, and potential equity impacts for Indigenous groups.

## Abstract

This research explores integrated land use and transport planning in Aotearoa New Zealand in 2022.

The methods included:

- a literature review of tools used to achieve integration, and the environmental, social, health and equity benefits of doing so
- a stocktake of domestic policy to identify policies, legislation, levers and data that create barriers or provide opportunities for achieving integration within our current legislative and policy environment
- interviews with planning professionals working in the public sector to identify the current state of integration, barriers and opportunities.

We found that while some national government policy supports integration, it can be undermined by six main factors:

- status quo bias
- tension between policy and legislated requirements
- the complexity of the existing planning framework
- inconsistent quality of local government strategic planning
- uncoordinated national government policies and legislation
- capacity challenges at local government level.

To overcome this, we recommend the following actions.

- **Develop a shared understanding of integration** by including a consistent definition in national-level policy and guidance for local governments.
- **Improve practitioner and public understanding** of integration through pan-disciplinary education, professional development and the development of educational resources for the public.
- **Coordinate national government's approach** by partnering with other government agencies to resolve inconsistencies in legislation, policies or approaches.
- **Improve monitoring, evaluation and accountability** through funding mechanisms, changes to the LGA performance measures, and legislating minimum parameters for good land use and transport planning.
- **Support integrating relationships** between Waka Kotahi and other agencies through secondments, and between Waka Kotahi and local authorities through funding.
- **Leverage resource management and local government reforms** to reduce complexity in the planning system.
- **Review the LGA performance measures** to encourage combining street renewals and improvements, which should be rolled out in an integrated and prioritised way at the territorial authority level. Consider shifting to an outcomes-based approach, such as transport mode split or vehicle kilometres travelled, rather than deliverables-based measures that audit but do not advance the outcomes set forth in policy.
- **Conduct further research** to understand international policy, legislative and governance frameworks, funding mechanisms, and potential equity impacts for Indigenous groups.

# 1 Introduction

This research was commissioned by Waka Kotahi NZ Transport Agency to develop an understanding of what integrated land use and transport planning means in the Aotearoa New Zealand context and the benefits it could provide. The research scope was broad and included:

- approaches used overseas that could be implemented in Aotearoa New Zealand
- a stocktake of domestic policies, legislation, levers and data that relate to integrated planning
- interviews with planning professionals to identify the current state of integration, barriers and opportunities.

Land use planning and transport planning have a strong influence over each other. The current land use and transport planning system has dominated Aotearoa New Zealand for much of the 20th century. This system tends to arrange land use planning and transport planning into separate disciplines that work in relative independence of each other. The transport planning discipline has tended to be car-oriented and has focused on the mobility of cars, ensuring they can move quickly, directly and without impediment.

This approach has meant land use planning outcomes tend to be subservient to the car-oriented transport planning outcomes. We will address these ideas in this report and offer suggestions as to how the integration of land use planning and transport planning could promote access for all people, while leveraging co-benefits like reduced greenhouse gas emissions, improved quality of life and health benefits.

## 1.1 Structure of report

This report is divided into six parts.

- **Chapter 1: Introduction** establishes the purpose of this work, sets out a definition for integrated land use and transport planning, and summarises the previous Waka Kotahi research reports examining the topic.
- **Chapter 2: Methods** explains the approach we took to reviewing the literature, conducting the policy stocktake, and interviewing the planning professionals.
- **Chapter 3: Literature review** explores international peer-reviewed research on different methods used to integrate land use planning and transport planning overseas. This chapter also discusses the environmental, social, health and equity benefits to be gained from integrating land use planning and transport planning.
- **Chapter 4: Policy stocktake** sets out the findings of our analysis of the Aotearoa New Zealand planning system and how it does, or does not, support the integration of land use planning and transport planning. We examine national government policy and use Hamilton and Auckland as examples at the local authority level.
- **Chapter 5: Interviews with planning professionals** explores the interviews we conducted with six planning professionals working in the public sector to understand how integrated land use and transport planning is, or is not, occurring in practice.
- **Chapter 6: Conclusions and recommendations** brings together the findings of the literature review, policy stocktake and interviews to draw conclusions on the state of integrated land use and transport planning in Aotearoa New Zealand. Here we also make recommendations for further research and highlight opportunities to improve integration in Aotearoa New Zealand.

## 1.2 What is integrated land use and transport planning?

Land use and transport have always been linked. The way transport systems are planned impacts the land use that occurs in the area and vice versa (Rode, 2019; Straatemeier & Bertolini, 2020). For example, the construction of far-reaching road networks has facilitated the development of sprawling car-dependent suburbs, which has in turn supported a pattern of vehicle-focused mobility. The development of sprawling suburbs has then triggered a perceived need for road widening and additional lanes to improve mobility.

In this report, we define integrated land use and transport planning as policy and practice that:

- considers the interconnected nature of the two and their effects on one another
- has a goal of improving housing supply, choice and affordability
- has a goal of decreasing reliance on private vehicles by reducing the need to travel and increasing the provision of and access to public transport, walking and cycling.

This definition requires moving away from simply improving mobility by providing for private vehicles, towards an outcomes-based approach that improves access and safeguards the wellbeing of people and the environment (Engineers Australia, 2021). This focus on access requires the location of compatible land uses to be planned to reduce the need to be hyper-mobile and instead uses deliberate land use planning to reduce the distances people must travel to reach their destinations (Wu & Levinson, 2020).

Done well, integrated land use and transport planning improves access by giving people choices in how they travel. A well-integrated system has convenient locations well served by affordable and reliable public transport options; safe and direct walking and cycling connections; and low reliance on private vehicles. This reduces emissions from the transport system. It also improves quality of life for residents by improving health metrics, increases access to essential and discretionary services, lowers the cost of living, and increases social equity (Carlsen & Leknes, 2021; Komalawati & Lim, 2021). Transport and land use have a two-way relationship for achieving these outcomes. The transport network and investment priorities can affect the types and quality of land use, but land use planning can also affect what transport investments are made and the viability of different modes.

Integration must occur both vertically and horizontally to achieve these benefits (Duman et al., 2022; Rode, 2019). This means integration must be achieved vertically across all levels of government planning, from national legislation and policy, through to local government planning, and down to project-level implementation. Horizontal integration must be achieved between governing bodies at the same level, such as between government ministries and neighbouring regional authorities (Duman et al., 2022).

## 1.3 Links to other research

Research into integrated land use and transport planning has previously been carried out as part of the research programme of the Waka Kotahi predecessor Transit New Zealand. Research Report 333 (Ward et al., 2007) covered the topic in 2007, focusing on:

- the (2007) legal and institutional arrangements relevant to land use planning in Aotearoa New Zealand
- the strengths and weaknesses of these arrangements, with a focus on barriers to implementation
- overseas practices that enable integrated land use and transport planning
- recommendations for improving the integration of land use planning and transport planning.

Since that initial work was published, an additional five research reports on integrated planning have been undertaken:

- Research Report 354 (Hunter et al., 2008), which focused on planning at the regional scale

- Research Report 379 (Dunbar et al., 2009), which looked at planning for discrete projects
- Research Report 402 (Dunbar et al., 2010), which developed indicators for monitoring integration
- Research Report 444 (Donovan et al., 2011), which used Sylvia Park as a case study for improving integration
- Research Report 490 (Haigh & Lane, 2012), which mapped existing transport networks and land uses to identify 'hot spots' where integration needed improvements.

## 1.4 Policy and legislative landscape

Since the last Waka Kotahi research report on integrated land use and transport planning was published in 2012, the land use and transport planning policy legislative environment has undergone significant change.

- Aotearoa New Zealand ratified the Paris Agreement in 2016 and committed to global efforts to keep the global average temperature change well below 2°C through the Climate Change Response Act 2019.
- The Government Policy Statement on Land Transport (GPS-LT) 2018 signalled a step-change in the way transport planning was undertaken, prioritising level-of-service improvements for active modes and public transport in the transport system.
- The Kāinga Ora Act 2019 established Kāinga Ora, the country's largest landlord and housing developer, which can lead complex projects through its Specified Development Project process under the Urban Development Act 2020.
- The National Policy Statement on Urban Development (NPS-UD) was implemented in 2020 to encourage development of high-quality urban environments.
- The Urban Growth Agenda (UGA) was introduced in 2021 to address housing affordability and improve access to employment, education, and other services.
- The Government Policy Statement on Housing and Urban Development (GPS-HUD) was released in September 2021 to provide a shared vision for the direction of housing and urban development.
- The Resource Management (Enabling Housing Supply and Other Matters) Amendment Act was passed in 2021 and came into effect in August 2022.

Other factors have remained constant, including:

- organisational challenges and complexity preventing integration across different levels of government, between neighbouring authorities, and with external organisations
- conflict and inconsistency between the objectives of land use plans and transport plans
- separation of land use planning departments from transport planning departments within organisations
- no government agency having oversight or accountability for the integration of land use planning and transport planning.



## 2 Methods

To develop a strong understanding of integrated land use and transport planning internationally and in Aotearoa New Zealand, we split the research into three phases: the literature review, the policy stocktake, and interviews with planning professionals. The literature review primarily focused on the tools used to achieve, and the benefits arising from, integrated planning. The policy stocktake and interviews with planning professionals focused on the current state of integrated land use and transport planning within Aotearoa New Zealand.

Here we set out the various methods we used for each phase of the research.

### 2.1 Literature review

Our literature review was guided by the systematic literature review method set out by Xiao and Watson (2019).

We began the literature review by searching two databases commonly used in planning research: Google Scholar and Taylor & Francis Online. When searching for literature, we used the keywords ‘transport land use integration’, ‘transport land use integration carbon emissions’, ‘transport land use integration social impacts’ and ‘transport and land use integration New Zealand’.

Due to the high volumes of search results for international literature, we narrowed the search to open-access, peer-reviewed journal articles published within the last 10 years (2012–2022). We also limited the search to journal articles written in English. We did not apply these limitations to Aotearoa New Zealand-based literature due to a low number of results. Due to low findings for New Zealand-based research, all literature was considered together, rather than splitting them into international and New Zealand-based literature. Each journal article was then read by a member of the research team, with relevant information filed using NVivo software.

### 2.2 Policy stocktake

We have used a variety of indicators (described in Table 2.1) to assess a range of policy documents as part of our stocktake. Many of these indicators are set out in Dur and Yigitcanlar (2015) and have been supplemented or built on from our collective professional knowledge of integrated land use and transport planning.

We have also used increased density – which contributes to quality, compact urban form and transit-oriented development (TOD) – as an indicator because this concept has been included in strategic planning documents in Aotearoa New Zealand for several decades and is also consistent with the GPS-HUD outcomes. Moreover, density is a critical factor in supporting the quality of public transport and in turn enabling transport options for people.

**Table 2.1 Indicators of integration used in the policy stocktake**

Indicator	Description
Prioritisation	What type of users are prioritised within the transport system in the document/decision? Has due weighting been afforded to the needs of people using modes other than driving alone, so that a balanced transport system can result?
Density	Does the document actively encourage land use density around frequent transport stops and local, town and city centres, or at least enable land use density and TOD to occur? Density should be able to occur in the walkable and cyclable catchments around frequent transport stops and centres. This indicator is associated with housing choice and affordable housing.
Mixed-use	Does the document actively encourage mixed-use development that will assist with amenities being located near to where people are living and working, or at least enable mixed-use development to occur in this way?
Access or mobility	Does the document/decision embody an access-based design philosophy or a mobility-based design philosophy?
Travel behaviour change	Does the document/decision include soft measures such as mandating travel plans and/or avoiding subsidies for car travel such as free parking?
Urban environmental quality	Does the document/decision aim to improve urban character and amenity, including through reduced dominance of cars within the transport network, and through urban design principles like development contributing positively to the streetscape and public domain or requiring verandas be provided where they will be beneficial?

## 2.3 Interviews

Semi-structured interviews were conducted with six professionals working in the public sector to gain an in-depth understanding of how integrated land use and transport planning is (or is not) occurring in practice. We interviewed the following people.

- **Kāinga Ora:** Hayley Fitchett, Director National Planning, and Christian Hurzeler, Director of Large-Scale Developments (two staff were interviewed together)
- **Waikato Regional Council:** Mark Tamura, Director Regional Transport Connections
- **Waka Kotahi:** Caroline Dumas, Programme Lead One Network Framework, Multimodal and Innovation
- **Hamilton City Council:** Mark Davey, City Planning Manager (Mark also has recent experience in the land use team at Auckland Transport)
- **Auckland Council:** Michael Roth, Lead Transport Advisor

Professional interviewees were chosen to ensure coverage of all levels of government and to ensure a mix of people working mostly in land use and people working mostly in transport.

All the professionals were asked to describe their role, share their own definition of integrated land use and transport planning, and comment on how well Aotearoa New Zealand's legislative structure is set up for integrating land use planning and transport planning. The rest of the questions were specific and targeted each person's role, their professional experience, or their local context. We also sought examples of where integrated land use and transport planning has been done well, or where there were clear opportunities for improvement.

On completion of the interviews, each one was analysed for its main themes. These themes were then collated, and recurring themes were grouped together.

## 3 Literature review

In this section we draw on international and Aotearoa New Zealand-based literature to provide insights into the types of tools used in integrated land use and transport planning in different contexts. We also discuss the benefits of integrated land use and transport planning as they relate to the broad categories of environmental, social, health and equity.

### 3.1 Tools for success

The literature review uncovered two types of tools that facilitate the successful integration of land use planning and transport planning – system settings and outcomes tools.

- **System settings** are institutional frameworks and processes that support integration and include governance and organisational structures. System settings facilitate or specify outcomes tools.
- **Outcomes tools** are specific development and design concepts, such as transit-oriented development (TOD), compact design, and mixed-use development. These tools are used to achieve a particular outcome. Although they can be used in isolation, they need effective system settings in place to be used consistently to meet strategic goals.

A key finding is that there is no one-size-fits-all approach that can be universally applied (Lee et al., 2021; Pezeshknejad et al., 2020). In Aotearoa New Zealand, different contexts to consider include national policy contexts, regional contexts, and smaller-scale local contexts. Factors that support or hinder the success of each tool are discussed in the following sections.

The tools discussed in this chapter have been limited to those that have been implemented and reported on within published literature. Examples that have been proposed or modelled overseas, but not implemented, have not been included. This enables a focus on tools with proven success, or those that have been implemented with partial success and that provide useful lessons to the Aotearoa New Zealand context.

#### 3.1.1 System settings

In this section we examine system settings in countries with a similar planning structure to Aotearoa New Zealand. These system settings help regional or municipal governments to overcome challenges to integrated land use and transport planning presented by:

- a three-tiered planning structure involving a national, regional, and municipal/district planning authority
- siloed land use planning departments and transport planning departments within each of those governmental tiers.

For each tool, we comment on how it could be applied to Aotearoa New Zealand to promote integrated land use and transport planning.

##### 3.1.1.1 Integrated governance structures

Integrated governance structures made up of representatives from a range of governmental tiers and planning departments can be used to achieve integrated land use and transport planning. These integrated governance structures can be used to steer a range of planning processes, including large-scale developments, or the development of policies and plans.

Integrated governance structures have been used with success internationally and provide lessons as to how success can be achieved in Aotearoa New Zealand.

## Highlights

The research suggests that successful integrated governance structures rely upon:

- establishing shared objectives early in the planning process
- establishing clear lines of accountability in the early planning stages
- enforcing strong monitoring and evaluation to ensure goals are achieved.

### *Establishing shared objectives*

Pettersson and Hrelja (2020) describe a 'co-action' governance team in Sweden that was created to extend the Tvärbanan light rail line from Stockholm into an urban renewal area in the neighbouring municipality of Nacka. The extension sought to connect the light rail line to the regional rail system, and to provide access between the urban renewal area and the local shopping centre (Pettersson & Hrelja, 2020).

The project involved collaboration between Stockholm City Council, Nacka Municipality, City of Stockholm, a real estate developer, the Swedish Transport Administration, and selected business owners in the area. The term 'co-action' is used to describe this governance team as it involved several organisations with different functions and goals acting together to achieve the extension of the line (Pettersson & Hrelja, 2020).

Despite involving multiple organisations and being technically complex, members of the governance team described the project running smoothly and successfully. The first stage of construction was completed in mid-2021. A contributing factor to this success was the establishment of shared objectives early in the planning process. Each organisation was transparent in its own aspirations and used these to create shared goals. Because of this, team members could work together to achieve shared goals, rather than various organisations competing to achieve their own aspirations and missing opportunities to collaborate (Pettersson & Hrelja, 2020).

This is supported by Fischer et al. (2013), who found that shared objectives and aims between different institutions were a key enabler of integrated land use and transport planning when it came to preparing a range of strategic planning documents in Merseyside between 1965 and 2008. In particular, having consistency between the high-level aims and objectives of different planning departments made development of the Merseyside Structure Plan straightforward and its outcomes enforceable. This is especially important to consider when separate institutions primarily responsible for either land use planning or transport planning are involved in the project (Fischer et al., 2013; Pettersson & Hrelja, 2020).

The development of the South West Rail Line in Sydney, Australia, provides an example where shared objectives were not established, resulting in imbalanced outcomes between land use goals and transport goals (Mottee et al., 2020). The project was a collaboration between three local authorities and the state rail operator. It created a new 11 km heavy rail line, two new stations, and a train-stabling facility, and it upgraded an existing station. For the local government actors, the project was an opportunity to provide public transport to a new growth area. This reason was given to gain public acceptance of the proposal. For the rail operator, the project was an opportunity to address operational constraints (Mottee et al., 2020).

The opportunity to address operational constraints was key to gaining funding and ensuring the project could go ahead. Because of this, the design of the rail line upgrades was heavily influenced by factors that would support operation, rather than strategic planning for development in the growth area (Mottee et al., 2020). Without the development of shared objectives for the project, the master planning of the growth area was undermined. Local authority planners involved in the process said this made it difficult to manage the social impacts on the current and future communities (Mottee et al., 2020).

### *Establishing clear lines of accountability*

It is also important to establish clear lines of accountability in the early planning stages of a project or planning process where multiple institutions are involved. Without a clear understanding of who is accountable for the various goals or deliverables, there is a risk that these goals will not be achieved (Mottee et al., 2020).

In the development of Sydney's South West Rail Line there were clear lines of accountability linked to the timing and budget targets, as well as pressure to alleviate the operational constraints of the existing rail line (Mottee et al., 2020). Other outcomes of the project did not have clear lines of accountability. In particular, no one was responsible for parking management and last-leg planning. This meant that both the new stations had problems with large numbers of cars parked illegally in the station surrounds, including on footpaths and in 'no parking' zones. Because of the lack of accountability structures, the local authority had to seek funding from the state government to address the issues. This process took some time, and the community was left to live with the negative impacts in the meantime (Mottee et al., 2020).

### *Enforcing strong monitoring and evaluation of the shared objectives*

The importance of monitoring and evaluation was also discussed in Mottee et al. (2020). In the Sydney South West Rail Line project, local authority planners indicated that more robust monitoring and evaluation processes may have reduced the severity of parking problems that occurred once the new stations were opened.

Although there was little literature focused on monitoring and evaluation in the context of integrated land use and transport planning, lessons can be drawn from literature on greenhouse gas emissions reductions planning. In the United States, funding for transport projects is tied closely to reporting on metrics like congestion and air quality improvement (Thorwaldson et al., 2021). Tying funding to the monitoring and evaluation of shared integrated planning objectives could incentivise this important stage of the planning process.

### **3.1.1.2 Integrated policy- and plan-making processes**

To achieve integrated land use and transport planning, policy- and plan-making processes must overcome formal process norms. These norms include things like prescribed planning procedures, as well as informal or cultural norms such as taken-for-granted practices within an institution (Duman et al., 2022). Here we look at institutional and cultural factors that support integrated land use and transport policies and plans.

#### **Highlights**

The research suggests that successful integrated policy- and plan-making processes rely on:

- co-production of land use policies/plans and transport policies/plans, or production of a single combined policy/plan
- informal relationships between staff in different departments or organisations to facilitate integration of policies and plans.

### *Co-production of policies and plans*

Integration at the policy- and plan-making level of government has been studied in depth by Fischer et al. (2013). They found that land use plans and transport plans should be produced in parallel if they are to be genuinely integrated, with two potential approaches:

- two separate plans for land use and transport that are produced at the same time, while sharing information and resources between separate governmental departments with common, or at least compatible, goals
- a single plan that combines land use and transport planning.

Co-producing land use and transport policies and/or plans has several benefits, including:

- a more efficient process due to sharing of resources such as staff and background information
- the ability to monitor and compare outcomes where the same geographic scope, methods, indicators and metrics are used across all policies and plans
- improved implementation, so there is no inconsistency between land use policies and plans and transport policies and plans (Fischer et al., 2013).

#### *Supporting staff networks*

Formal structures for integrated land use and transport are useful for achieving integration. However, integration generally cannot be successful without networks between the staff who work within departments responsible for producing land use and transport policy and plans (Fischer et al., 2013; Pettersson & Hrelja, 2020).

In many cases, the success of integrating land use planning and transport planning relies on the individuals involved in the planning process at the delivery, managerial and governance level, their skills, and their willingness to communicate and collaborate with other departments (Fischer et al., 2013; Pettersson & Hrelja, 2020). This is supported by Rode (2019), who highlights the importance of interagency communication between different experts and planning staff to integrate urban planning and transport policy. Social bonds, trust and willingness to work together are key to achieving integration between governmental departments (Fischer et al., 2013; Rode, 2019).

In the Swedish example, previous plans to extend the light rail line had been abandoned because the perceived differences between different groups' goals reduced their willingness to work together. It was not until several years later when the scope of the extension was reduced that planning resumed, and the groups agreed to work together. Once that happened, willingness to work together was so high that the project was completed within 1.5 years of the political decision to extend the light rail being made (Pettersson & Hrelja, 2020).

#### **3.1.1.3 Soft space planning**

Soft space planning is an approach which recognises that the geographic boundaries of official planning jurisdictions can fail to reflect the cross-boundary nature of many planning issues (Pettersson & Frisk, 2016). A planning document using the soft space approach will cover the entire geographic area where an issue exists, often crossing official planning jurisdictions. This type of plan also requires input from multiple planning authorities. These plans do not replace statutory plans but complement them (Pettersson & Frisk, 2016).

When planning for issues that cross formal geographic planning boundaries, a soft space approach can be used to support integrated land use and transport planning across those boundaries.

### Highlights

Soft space planning can support:

- land use and transport planning integration between neighbouring municipalities
- integration between land use planning authorities and transport planning authorities at different levels of government.

Internationally, soft space planning has been used to plan for metropolitan areas that exist outside of formal government boundaries. This supports integration between different planning departments, including land use and transport, and between different levels of government and neighbouring municipalities (Duman et al., 2022). The Region of Skåne, Sweden, used a soft space planning approach on a small scale to facilitate conversations with neighbouring regions about land use and transport activities happening at Skåne’s borders (Pettersson & Frisk, 2016).

This approach has been successfully integrated into the municipal plans in the area, including neighbouring municipalities that are not formally part of the Region of Skåne. This is shown through the presence of integrated land use and transport planning instruments (as set out in the soft space plan) present in the neighbouring municipalities’ planning documents such as rules supporting infill development, sprawl controls, and rules supporting TOD (Pettersson & Frisk, 2016).

The Hamilton-Waikato Metro Spatial Plan is an Aotearoa New Zealand example of soft space planning for a metropolitan area. The Metro Spatial Plan will provide strategic direction for the location of different land uses and infrastructure, with a 100+ year vision and a 30-year delivery plan. The Metro Spatial Plan is a collaboration between at least 11 partners, including mana whenua, three territorial authorities and the regional council, as well as national-level transport and housing authorities and ministries (Futureproof, 2020).

The soft space concept will be useful while Aotearoa New Zealand is going through resource management reform and potential local authority reform. This approach is already becoming more common in Aotearoa New Zealand, with many local authorities choosing to use soft space planning to supplement the existing resource management system while the transition to a new system occurs. Central government’s urban growth partnerships, under the 2021 Urban Growth Agenda, are working across boundaries to align infrastructure investment. It would also be useful to address cross-boundary issues before potential local authority reform.

#### 3.1.1.4 Political support for integration

While political support is not a true planning tool, we have included it here as it is an underlying condition that is key to the success of integrated land use and transport planning.

### Highlights

- Political support can be used to facilitate integrated land use and transport planning, and opposition can stymie it.
- Elected member portfolios can be used to support integrated land use and transport planning.

A broad theme from successful integrated land use and transport projects is that they have had strong political support from elected leaders (Pettersson & Hrelja, 2020; Rode, 2019). Fischer et al. (2013) describe the influence that elected leaders can have on the integration of land use planning and transport planning, depending on their motivations or agendas. For example, in Merryside, UK, land use and transport integration was undermined by a political agenda in the 1970s–80s that promised a ring road as a solution to



economic decline (Fischer et al., 2013). This contrasts to Merryside's later political history, where elected members recognised the failings of a siloed land use and planning system and supported efforts to integrate the two planning departments (Fischer et al., 2013). This was also the case in Tvärbanan, where political support for the extension of the rail line was high due to the desire to unlock an urban renewal area (Pettersson & Hrelja, 2020).

In Berlin, political support directly influences the success of integrated land use and transport outcomes. The political structure supports integration as a single senator holds the portfolio for urban development, which incorporates both land use planning and transport planning (Rode, 2019). This structure means that land use planning and transport planning are integrated at the highest level of government, by default. In Aotearoa New Zealand, this would be comparable to having a single government Minister responsible for integrated land use and transport planning. These responsibilities are currently shared by the Minister of Transport, the Minister for the Environment, the Minister for Housing and Urban Development and the Minister of Infrastructure.

### **3.1.2 Outcomes toolbox**

This section summarises the outcomes tools that are common in the literature. Many of these tools can be applied to a single site to provide limited benefits. However, to maximise the benefits of outcomes tools, system settings need to be in place to ensure they are applied throughout a city, district or region, and in appropriate locations in a strategic way (Pezeshknejad et al., 2020; Rode, 2019).

It is important to note that these tools are interrelated and are often used together in practice. For example, TOD and mixed-use development may be used in tandem to provide a range of compatible land uses within proximity of a transit station.

Table 3.1 describes a range of outcomes tools that have been used overseas to support integrated land use and transport planning.

**Table 3.1 Outcomes toolbox for integrated land use and transport planning**

Tool	Description	Example of use	Application to Aotearoa New Zealand
<p>Transit-oriented development (TOD)</p>	<p>A development pattern where housing or commercial developments are located strategically on a transit corridor to reduce car dependency and support usage of public transport. Typically refers to the construction of medium- or high-density housing and mixed-use developments near transit stations (Nigro et al., 2019; Niu et al., 2019).</p>	<p>The Rosslyn-Ballston Corridor in Arlington County, USA, is a best practice example of TOD (Buehler et al., 2015). In the late 1970s, the Rosslyn-Ballston Corridor was in economic decline. To combat this, a mixed-use redevelopment targeting the 400 m radius around five new subway stations in the area was enabled. Planning rules allowed a density gradient around the stations, with high density in the immediate surrounds and lower density further away from the station (Buehler et al., 2015). Controls were also put on parking provision to reduce the amount of parking provided within mixed-use developments (Arlington Virginia, n.d.).</p> <p>Between 1990 and 2012, public transport mode share rose by 42% in the Rosslyn-Ballston Corridor. While single occupancy vehicle trips have declined from 55% to 47%, commuting by public transport has increased from 18% to 27% in the county as a whole (Buehler et al., 2015).</p> <p>A similar approach has been taken in Lund, Sweden, where 75% of development must occur in areas within 1 km of a regional train station with at least four departures each hour, or within 1.5 km of Lund central station (Pettersson &amp; Frisk, 2016).</p> <p>The other 25% of development must occur in areas within 400 m of a bus stop with at least four buses each hour within the city of Lund. Outside of the city, development must happen within 1 km of a regional bus stop (Pettersson &amp; Frisk, 2016).</p>	<p>TOD has already begun to be implemented using the NPS-UD, which requires Aotearoa New Zealand’s fastest growing districts to allow six-storey developments within the walking catchment of:</p> <ul style="list-style-type: none"> <li>• existing and planned rapid transit stops</li> <li>• the edge of city centre zones</li> <li>• the edge of metropolitan centre zones (New Zealand Government, 2020a).</li> </ul> <p>Most cities are yet to complete plan changes to incorporate the NPS-UD into their district plans, so the full effect of the NPS-UD is yet to be felt. Some examples of TOD already complete do exist in Auckland, including:</p> <ul style="list-style-type: none"> <li>• Modal’s build-to-rent complex in Mt Albert, which has 32 apartments near two train stations and three frequent bus routes (Ockham, 2020)</li> <li>• the Merchant Quarter in New Lynn, which has 110 apartments near the New Lynn train station (Greenstone Group, n.d.).</li> </ul> <p>These types of development will be better enabled once the NPS-UD has been incorporated into district plans around the country.</p>

Tool	Description	Example of use	Application to Aotearoa New Zealand
Compact design	<p>A development pattern that minimises the amount of land that is taken up by buildings and infrastructure through densification. This aims to reduce urban sprawl and make cities more efficient (Komalawati &amp; Lim, 2021). There is significant crossover between compact design and other outcomes tools. Compact design principles emphasise compact, dense, diverse, and mixed-use development, supported by sustainable transport options and green space (Birbri et al., 2020).</p>	<p>Gothenburg, Sweden, began a compact design approach to managing its large population growth (Birbri et al., 2020). The city's sustainable development strategy promotes compact design by prioritising development in brownfields areas, existing central areas and strategic public transport nodes. The identified development areas in the sustainable development strategy are supported by improvements to public transport network coverage and frequency to ensure compact development does not lead to large numbers of cars within growth areas (Birbri et al., 2020). This approach has been effective in reducing urban sprawl and producing a dense, multi-use city.</p>	<p>Compact urban form is a key goal of Hamilton City Council. The Hamilton District Plan uses a Residential Intensification Zone with a density target of 30 dwellings/ha to support this goal. The Residential Intensification Zone has different rules to the General Residential Zone to promote intensification, such as allowing greater site coverage, taller heights, and more dwellings per site (Hamilton City Council, 2017). These zoning rules are applied to existing areas of the city that are within the walking catchment of employment and education hubs such as the hospital, university and city centre.</p> <p>Since the Hamilton District Plan was made partially operative in 2016, density has increased by 12.7% in the Residential Intensification Zone, compared to 7.3% in the General Residential Zone (Hamilton City Council, 2020). Supporting these measures with restrictions of greenfield development and integration with transport planning would result in stronger outcomes.</p> <p>There is potential for other cities in Aotearoa New Zealand to use zoning in a similar way to promote compact design. This concept could also be tied into the Housing Capacity Assessments required under the NPS-UD.</p>
Mixed-use development	<p>A development typology that combines different, compatible land uses within a single development, or within proximity of each other (Carpio-Pinedo et al., 2021; Komalawati &amp; Lim, 2021). Common mixed-use developments have ground-floor retail activities with residential or office uses at higher levels (DeLisle &amp; Grissom, 2013).</p>	<p>Tübingen, Germany, has implemented mixed-use development principles to achieve their 'city of short distances'. In Tübingen this means employment-generating land uses are located close to residential land uses to reduce the distance residents must commute for work each day (Hamiduddin, 2018). Research showed that 37% of workers in districts designed to be mixed-use lived locally, compared to 23% in control districts (Hamiduddin, 2018).</p>	<p>Mixed-use development has already been implemented in Auckland, both throughout the region on a strategic planning level, and on individual sites.</p> <p>Auckland Council uses a range of mixed-use zones to promote the co-location of compatible land uses (Auckland Council, 2020a).</p> <p>Mixed-use zoning is likely to become more common as the National Planning Standards are implemented. The National Planning Standards prescribe definitions of a range of zones, many of which include mixed uses (Ministry for the Environment, 2019).</p>

Tool	Description	Example of use	Application to Aotearoa New Zealand
20-minute city	<p>A planning tool popularised through planning post-pandemic cities that has a hyperfocus on living locally. In a 20-minute city, all residents would be able to meet their daily needs within a 20-minute walk or cycle trip. 20-minute cities rely on accessibility, walkability, density, and mixed uses (Pozoukidou &amp; Chatziyiannaki, 2021).</p> <p>There is a range of terms referring to similar concepts, such as '15-minute city' and '15-minute neighbourhood'.</p>	<p>Paris, France, has committed to implementing the 15-minute neighbourhood concept throughout the city. This is primarily a climate action project but also forms part of the city's Covid-19 health response and seeks to improve the culture of the city (Paris Council, 2021b).</p> <p>The city is carrying out a series of 250 projects throughout its 17 arrondissements (administrative districts), many of which contribute to the outcomes of Paris' 15-minute neighbourhoods. These projects mainly consist of footpath upgrades, as well as some accessibility improvements and renovation or development of new public facilities (Paris Council, 2021a).</p>	<p>The 20-minute city has potential to be applied to the Aotearoa New Zealand context. Ongoing research at the University of Waikato is using Hamilton as a case study to test the concept and investigate whether adaptations are needed to meet the expectations of New Zealanders (University of Waikato, 2021).</p>
1-minute city	<p>A planning tool inspired by the 15-minute neighbourhood movement. In a 1-minute city, residents are asked to consider how land is used within a 1-minute radius of their house and what amenities could be provided within that one minute to improve their quality of life (eg, urban park, play area, shared electric vehicle charging, outdoor gym). Space is then reallocated from other uses to accommodate the community's needs (Amin, 2012).</p>	<p>Stockholm, Sweden, pioneered the 1-minute city concept with their 'Street Moves' programme. Community members co-created new street layouts based on their neighbourhood's needs, using modular parklet installations. The use of the streets has changed from primarily car parking to uses that reflect local community values (O'Sullivan, 2021).</p>	<p>The co-creation process of 1-minute cities in Sweden is comparable to the community-designed projects in Aotearoa New Zealand's Innovating Streets for People programme. The 1-minute city process could be used in Aotearoa New Zealand, which allows residents of a street to submit ideas, rather than being a process led by the local council.</p>

Tool	Description	Example of use	Application to Aotearoa New Zealand
Healthy Streets	<p>Healthy Streets is an assessment tool with 10 indicators for measuring the human experience of a street. To be a 'Healthy Street' various aspects of land use planning and transport planning are integrated to meet the 10 indicators (Healthy Streets, n.d.):</p> <ul style="list-style-type: none"> <li>• Everyone feels welcome</li> <li>• Easy to cross</li> <li>• Shade and shelter</li> <li>• Places to stop and rest</li> <li>• Not too noisy</li> <li>• People choose to walk and cycle</li> <li>• People feel safe</li> <li>• Things to see and do</li> <li>• People feel relaxed</li> <li>• Clean air</li> </ul>	<p>A Healthy Streets Design Check has recently been implemented in London, UK. The Design Check is a simple spreadsheet tool that developers and designers can use to assess how well their proposal meets the Healthy Streets indicators, and the ways they can improve (Transport for London, 2021). Transport for London hopes that the Design Check will incrementally support the health of London residents and increase the amount of green infrastructure in the city as developers make improvements to the street around their development (Transport for London, 2021).</p> <p>The Design Check has only recently been introduced, and it is not clear whether the check is required by law. However, we have included it here as an interesting tool that could be used at the implementation level by local authorities and developers in Aotearoa New Zealand.</p>	<p>A Healthy Streets Design Check could be introduced in Aotearoa New Zealand and combined with the One Network Framework (ONF). Developers could be required to complete a Design Check when a large-scale development occurs on a street with a high place function under the ONF. This could lead to incremental improvements.</p> <p>Alternatively, local authorities could use the tool to assess and inform street maintenance.</p>

## 3.2 Impacts of integration

In this section we discuss the specific impacts that can be achieved through leveraging the relationship between land use and transport. We pay particular attention to environmental (with a focus on greenhouse gas emissions), social, health and equity impacts. Only measurable impacts are included here, rather than modelled or predicted impacts.

There is considerable overlap between many of the impact categories – for example, air quality can be a health impact as well as an environmental impact, and all equity impacts are likely to tie into other categories. With this in mind, we have categorised impacts based on the category they primarily relate to. A summary of these benefits is provided in Table 3.2.

**Table 3.2 Summary of benefits of integrated land use and transport planning**

Benefit	Description/example
<b>Environmental</b>	
Reduced greenhouse gas emissions and improved local air quality	Land uses and transport systems with low greenhouse gas emissions result from a combination of: <ul style="list-style-type: none"> <li>• high public transport mode share</li> <li>• active transport accessibility</li> <li>• high densities</li> <li>• mixed-use development</li> <li>• TOD</li> <li>• reduced sprawl.</li> </ul>
High public transport mode share	In Curitiba, Brazil, density requirements along bus rapid transit corridors support the city's high public transport mode share. Curitiba has a public transport mode share of 45%, much higher than Auckland's public transport mode share of 10%.
Higher density for reduced sprawl	Enabling zoning rules around rapid transit lines can encourage density within existing urban areas and reduce the need for greenfield development. In Bogotá, there is an average of 1,700 residents per square kilometre along bus rapid transit lines, compared to 1,400 residents per square kilometre in areas not adjacent to bus rapid transit lines.
<b>Social</b>	
Improved quality of life	Where land use planning and transport planning are well integrated, quality of life is improved by: <ul style="list-style-type: none"> <li>• better access to essential services</li> <li>• better access to employment</li> <li>• better access to education</li> <li>• more accessible public transport</li> <li>• increased density and mixed uses, which promote interest and social vibrancy</li> <li>• less congestion and reduced travel times.</li> </ul>
<b>Health</b>	
Covid-19 resilience	Many cities are using the 20-minute city model to support the Covid-19 public health response. The 20-minute city can support public health in multiple ways, such as: <ul style="list-style-type: none"> <li>• reducing air pollution for improved respiratory outcomes</li> <li>• providing space for exercise and recreation in neighbourhoods with less access to open space</li> <li>• reducing the transmission of Covid-19 by reducing the need to travel for recreation</li> <li>• reducing the transmission of Covid-19 by widening footpaths to enable social distancing</li> <li>• lowering traffic speeds and volumes, which lessens accident frequency and severity.</li> </ul>

Active transport benefits	Walkability is strongly linked with improved physical and mental health. A study from Vancouver, Canada, showed that residents living in neighbourhoods designed to be walkable walk or take public transport two to three times more often than those living in less walkable neighbourhoods.
<b>Equity</b>	
Improved access for low-income communities	Integrated land use and transport planning can improve equity for historically marginalised groups when improving equity is made an explicit goal of the planning process. In Bogotá, low-income communities have disproportionate access to benefits compared to the rest of the population.
Affordable housing supported by transport choice	In the 1970s, Singapore went through widespread redevelopment. The government used this as an opportunity to integrate affordable housing with mass rapid transit. The city's Housing and Development Board 'vigorously developed' affordable housing in a series of satellite towns, connected to each other and the city centre with mass rapid transit, showing how government housing, shops, schools and other amenities can be planned alongside public transport to provide affordable housing with quality transport options.

### 3.2.1 Environmental

Integrated land use and transport planning offers opportunities to reduce the negative environmental impacts of these activities, including interrelated factors such as greenhouse gas emissions, urban sprawl and poor air quality. Perhaps the biggest opportunity integrated planning offers is through measures that reduce vehicle kilometres travelled by locating complementary land uses close together and providing good quality low-carbon transport modes for travel further from home (Pezeshknejad et al., 2020).

#### 3.2.1.1 Public transport mode share

Integrated land use and transport planning in Curitiba, Brazil, has enabled significant public transit mode share growth (Cevero, 2013). Mandates from Curitiba's municipal government required all medium- and large-scale developments to occur along a bus rapid transit corridor. In addition, design rules, primarily around density and height in relation to boundary standards, were used to encourage vibrant, mixed-use corridors while ensuring sunlight shines on the transit corridors to support amenity. These rules have a direct link to the high-density, high-transit-ridership neighbourhoods along the bus rapid transit corridors (Cevero, 2013). This approach has contributed to Curitiba's high transit mode share of 45%. Pre-implementation data was not available for Curitiba, but for comparison, Auckland is a similar size to Curitiba and has a public transit mode share of ~10% (Auckland Transport, 2020). This high public transit mode share means the city has low transport emissions and the cleanest air of Brazil's large cities (> 1 million residents), despite its large industrial sector (Cevero, 2013). Curitiba's high population density has been key to the success of its bus rapid transit corridors. These types of design tools are relevant to the Aotearoa New Zealand context and are similar to other development controls used in the NPS-UD.

#### 3.2.1.2 Density and urban sprawl

Integrated land use and transport planning has potential to reduce urban sprawl. In Bogotá, Colombia, which is famous for its bus rapid transit system, TOD along the bus rapid transit routes has contributed to higher-than-average population density, despite no formal policy approaches seeking to improve density (Bocarejo et al., 2013). It appears the market is driven to develop around bus rapid transit lines. Bogotá has seen significant population growth and density, with average density increasing by 8% from 2001 to 2008. The highest density has been achieved along bus rapid transit lines where there is an average of 1,700 residents per square kilometre, compared to 1,400 residents per square kilometre in areas not adjacent to the bus rapid transit line (Bocarejo et al., 2013). In the New Zealand context, more enabling zoning rules around



rapid transit lines (like the minimum density requirements of the NPS-UD) would enable developers to take advantage of this opportunity.

Reducing sprawl through integrated land use and transport planning has a direct effect on greenhouse gas emissions through preventing land use change. Fringe areas of cities that are covered with vegetation do not contribute to greenhouse gas emissions; however, when these fringe areas are developed, it increases a city's emissions through both construction and how the land is used once it is developed (Yigitcanlar & Kamruzzaman, 2014). These sprawling new developments tend to lock residents into a high emissions lifestyle as they require travelling long distances to access employment and services only accessible by car as development of public transport options tends to lag behind development. Integrated land use and transport planning that prevents sprawl and ensures good access to low-carbon transport modes throughout the area can prevent these emissions (Yigitcanlar & Kamruzzaman, 2014).

Reducing urban sprawl has additional environmental benefits, including:

- open space preservation
- preservation of productive farmland
- reduced surface and groundwater disruptions
- reduced local air pollution
- lower per capita energy consumption (Litman, 2022).

### **3.2.1.3 High-density, mixed-use development**

Planning for high-density, mixed-use development – supported by good public transport, walking and cycling connections in existing areas – can further reduce a city's greenhouse gas emissions (Yigitcanlar & Kamruzzaman, 2014). Where neighbourhoods are developed with a range of amenities and connections, residents tend to drive less and use public transport or walk more. Co-locating a range of services also means that residents can reduce their need to travel by combining trip purposes (Yigitcanlar & Kamruzzaman, 2014). This is supported by Wellington-based research, which found that people living in high-density housing in the city centre, where many amenities are available, had lower rates of car ownership and commuting by private vehicle than people living further from the Wellington city centre (Dodge, 2017).

### **3.2.1.4 Transit-oriented development**

Environmental benefits of TOD are discussed by Pezeshknejad et al. (2020), who found that TOD can have significant environmental benefits by reducing car dependency. This can result in reduced distance travelled by private vehicle, which reduces air pollution and energy consumption (Pezeshknejad et al., 2020). In California, USA, it was found that households living in a TOD area (within 400 m of a rail, ferry or bus stop with a 10-minute frequency in peak hours) travelled 37–50% fewer kilometres in a vehicle than households not living in a TOD area (California Housing Partnership Corporation & TransForm, 2014).

## **3.2.2 Social**

There is a very simple social benefit resulting from integrated land use and transport planning: improved quality of life. In this section we discuss the various ways integrated land use and transport planning contribute to improved quality of life for all people. Where integrated land use and transport planning has specific benefits to historically marginalised groups, these benefits are discussed in section 3.2.4: Equity.

Several factors work together to raise the quality of life for residents in an area with integrated land use and transport planning, including:

- improved access to essential services, neighbourhood destinations, the city centre, and open space by all modes – walking and cycling feel safer and public transport trip times are competitive with driving
- improved access to employment and other economic opportunities
- improved access to educational opportunities
- improved access to public transport stops, making this mode more convenient
- increased density supporting a larger range of land uses, promoting interest and social vibrancy
- less congestion and reduced travel times allowing daily activities to be completed in less time, with less stress
- increased community cohesion (positive relationships among neighbours) and security (lower crime risk) due to more people walking and interacting on local streets and shops (Dur & Yigitcanlar, 2015; Guzman et al., 2017; Kasraian et al., 2016; Komalawati & Lim, 2021; Pezeshknejad et al., 2020).

Research from Sydney, Australia, highlights the importance of making social benefits an explicit goal of integrated land use and transport planning (Mottee et al., 2020). Large-scale projects tend to focus on meeting time and budget targets to be considered a success, often to the detriment of social goals. For example, the Sydney South West Rail line was built to support development of a large growth area. The development was completed ahead of schedule and under budget but had detrimental social impacts at the local level once completed in the form of unmanaged parking that led to occupancy and safety issues (Mottee et al., 2020). When social benefits are an explicit goal, they are possible to achieve. However, without dedicated planning for them, it is likely that social disbenefits will be produced instead, even when land use planning and transport planning are integrated (Mottee et al., 2020).

Aotearoa New Zealand-based research suggests that these benefits contribute to latent demand for housing in areas with good integration between land use planning and transport planning (Bryson, 2017; Yeoman & Akehurst, 2015). One study (Bryson, 2017) found that most households prefer detached housing. But Yeoman and Akehurst (2015) found that, when forced to make trade-offs between housing type, location and price, about half of households would choose compact housing types, suggesting that there is latent demand for appropriate housing in accessible, multimodal neighbourhoods.

### 3.2.3 Health

Health has come to the forefront of many planners' minds in the context of the Covid-19 pandemic and its associated public health restrictions. As well as this, active transport has been shown to improve mental and physical health.

#### 3.2.3.1 Covid-19

The stay-home mandates or lockdowns used around the world meant people travelled less often and shorter distances. This increased the importance of localism and being able to meet essential needs and exercise locally, while supporting the public health response to Covid-19. Many cities are using the 20-minute city concept to achieve these goals and promote health (Hanzl, 2020; Pozoukidou & Chatziyiannaki, 2021).

Actively discouraging polluting car traffic and encouraging walking and cycling improves air quality (Cervero, 2013), as discussed in section 3.2.1. As poor air quality can worsen the effects of Covid-19, many cities, including in Aotearoa New Zealand, have reallocated road space away from cars, closed streets to non-local traffic, and implemented shared streets (Hanzl, 2020). This supports public health by:

- reducing air pollution for improved respiratory outcomes
- providing space for exercise and recreation in neighbourhoods with less access to open space
- reducing the transmission of Covid-19 by reducing the need to travel for recreation

- reducing the transmission of Covid-19 by widening footpaths to enable social distancing
- lowering traffic speeds and volumes, which lessens accident frequency and severity (Hanzl, 2020).

### **3.2.3.2 Active transport**

Health benefits are also being achieved independently of the Covid-19 pandemic responses. A study of TOD in Vancouver, Canada, showed that residents living in neighbourhoods designed to be walkable walk or take public transport two to three times more often than those living in less walkable neighbourhoods (Niu et al., 2019). This has physical health benefits to residents as walkability and the inadvertent walking that comes from public transport use decreases rates of chronic disease, improves fitness, and reduces rates of cardiovascular disease (Coffee et al., 2013; Wälty, 2021). Walkability is also linked with improved mental health, particularly when people have opportunities to walk through natural areas to reach their destination (Pozoukidou & Chatziyiannaki, 2021).

Integrating good walking and cycling connections with the land uses that connect them is key to achieving these health benefits. Allowing for mixed-use developments means people have attractive destinations within walking distance, giving them a purpose to walk and gain these health benefits. In a single-use zone with good walking infrastructure, people may be encouraged to walk for recreation but miss out on the opportunity to have essential services within walking distance (Yigitcanlar & Kamruzzaman, 2014).

## **3.2.4 Equity**

Integrated land use and transport planning can improve equity for historically marginalised groups when improving equity is made an explicit goal of the planning process. Research from Bogotá, Colombia, (Bocarejo et al., 2013) and Singapore (Niu et al., 2019) shows how this can be achieved.

### **3.2.4.1 Bus rapid transit**

Bogotá's high-capacity bus rapid transit system, TransMilenio, was developed in the early 2000s to address poor public transport services in Bogotá. Much of the expansion of the service has focused on peripheral areas of the city where services had been poor, and where housing prices are more affordable (Bocarejo et al., 2013). Mobility has improved for all city residents; however, low-income communities have disproportionate benefits because of this focus on fringe areas (Bocarejo et al., 2013). Despite providing the benefit of easy access to high-quality transit, the cost of housing in low-income communities has not increased because of their proximity to the bus service, although the authors do not provide an explanation as to why the cost of housing has not increased (Bocarejo et al., 2013).

### **3.2.4.2 Integrating affordable housing and transport choice**

Singapore has been a leader in integrated land use and transport planning since the 1970s, when the city created a redevelopment concept plan for the entire city (Niu et al., 2019). Two key goals of this plan were to reduce vehicle congestion in the city centre and to enable home ownership for everyone. The city's Housing and Development Board 'vigorously developed' affordable housing in a series of satellite towns, connected to each other and the city centre with mass rapid transit. These satellite towns were complete with shopping centres, parks and schools (Niu et al., 2019, p. 18). The towns have been largely successful and retain a balance of social and economic activity, alongside housing (Niu et al., 2019). Despite differences in the governmental systems in Singapore and Aotearoa New Zealand, this example shows how government housing, shops, schools and other amenities can be planned alongside public transport to provide affordable housing with quality transport options.

### **3.2.4.3 Equity for Indigenous groups**

No research was found that discussed opportunities to improve equity for Indigenous groups in the context of integrating land use planning and transport planning. Recent transport equity research highlights the importance of this issue in the Auckland context (Burdett & Thomas, 2021). Māori are at greater risk of experiencing transport poverty and transport-based exclusion (Burdett & Thomas, 2021) so are likely to experience disproportionate benefits from a well-integrated land use and transport planning system. Further research into this topic in Aotearoa New Zealand is needed.

## 4 Policy stocktake

To understand how integrated land use and transport planning might be improved in the Aotearoa New Zealand context, it is important to first have a clear view of the policies, plans and procedures that form the existing planning context. This chapter represents a ‘policy stocktake’ across, and between, different levels of government. It encompasses key pieces of legislation and their related requirements, and non-legislative processes, and it considers how these control and influence land use and transport planning and delivery in Aotearoa New Zealand.

This chapter begins with a comprehensive analysis of core land use and transport policy and planning documents produced at the national government level.

We then provide analysis of land use and transport planning and policy documents produced at the local government level. We use the examples of Hamilton and Auckland to illustrate how national government policy is incorporated into local planning documents. We examine documents at the regional and territorial authority level, then provide examples of recent decisions in each city that show how the limitations of policy can manifest in local decision making.

### 4.1 Integration in national government policy

More recent national policy direction on urban growth and development has been set out in the government’s Urban Growth Agenda (UGA). The Ministry of Housing and Urban Development website calls the UGA:

*a government-wide programme to improve housing affordability by removing barriers to the supply of land and infrastructure and making room for cities to grow up as well as out. (Te Tūāpapa Kura Kāinga – Ministry of Housing and Urban Development, 2022)*

The UGA has the objectives of:

**Affordable housing:** *Giving people more and better options for housing locations and types, to improve housing affordability in urban areas.*

**Emissions reductions:** *Encouraging, enabling, and incentivising lower emission urban form and construction.*

**Liveable and resilient cities:** *Making urban areas more accessible and inclusive, and increasing resilience to natural hazards and climate change impacts. (Te Tūāpapa Kura Kāinga | Ministry of Housing and Urban Development, 2022)*

Although there is no specific objective around integrating land use planning and transport planning, and the objectives seem more land use centred than transport centred, transport is not forgotten. The UGA includes a focus area of ‘Levering and integrating transport – Invest in transport and land use to create low-carbon and well-connected public and other transport’ (Te Tūāpapa Kura Kāinga | Ministry of Housing and Urban Development, 2022). Also, the government agencies involved with the UGA work include the Ministry of Transport and Waka Kotahi.

Integrated land use and transport policy direction coming out of the UGA programme is outlined in the GPS-HUD, the GPS-LT, the NPS-UD, and the Transport Outcomes Framework. These policy statements and the outcomes framework outline a paradigm shift in the way planning is approached. This is a shift from a planning paradigm promoting mobility using private cars and densities and land use zoning frameworks that assume primarily private-car-based transport systems, to an access-based paradigm that focuses on active and public modes of transport and relies on higher development densities and more mixed-use development.

Therefore, the policy direction coming out of the government's UGA aligns with the definition of integrated land use and transport planning outlined in section 1.2.

However, as a high-level observation, the importance of integration could be better highlighted by producing a combined government policy statement on transport and urban development. This would highlight the integrated role that street design plays in getting both 'good urban design and neighbourhoods and places', as referred to in the GPS-HUD, and 'inviting public spaces', as referred to in the GPS-LT.

### Highlights

The GPS-HUD, GPS-LT, NPS-UD and Transport Outcomes Framework recognise:

- the limits of cars in providing mobility and access in urban areas
- the limits a car-dominated transport system places on efficient land use development, people's wellbeing, and the liveability of places
- the accessibility limitations posed by lower-density urban development and the benefits of higher-density urban development, which include a greater mix of land uses within walking distance of homes
- the need for a holistic and integrated approach to planning to achieve the wellbeing goals required by Treasury's Living Standards Framework
- the mindset change needed to align with the definition of integrated land use and transport planning outlined in section 1.2 above.

#### 4.1.1 Government Policy Statement on Housing and Urban Development

The GPS-HUD envisions higher-density urban development, higher-quality urban environments, and more affordable housing (New Zealand Government, 2022). The GPS-HUD also envisions urban environments where people's daily needs are close to their homes and accessible by active modes or high-quality public transport. Although primarily concerned with land use, the GPS-HUD recognises that 'Land transport that is good for people and the planet is critical to transforming housing and urban outcomes for New Zealanders' (New Zealand Government, 2022, p. 10) and includes a section on planning and investing in places, which refers to good urban design and neighbourhoods and places meeting the community's needs.

The authors see streets and roads as making up the bulk of public space in urban areas. To achieve dense and high-quality urban environments, there is a need for high-quality street and road environments that provide not only safe walking and cycling environments, but also provide amenable public open space that can be used for recreation and socialising. This is something that is recognised in the GPS-LT 2018 under the 'Access' strategic priority, where one of the objectives is to achieve 'inviting public spaces' by 'creating spaces within the streetscape that are attractive and safe for people to sit, gather and walk and cycle' (New Zealand Government, 2018, p. 15).

#### 4.1.2 Government Policy Statement on Land Transport

The GPS-LT 2018 indicated a shift in paradigm from car dependency to transport choice (New Zealand Government, 2018). It recognises that broader land use outcomes and reductions in greenhouse gas emissions from transport are unattainable without enabling people to travel in different ways. To achieve a transport system that provides users with more transport choice, the policy identifies that a fundamental change in transport network design is needed. It shifts from a traditional design philosophy that prioritises level of service for cars and trucks to a new design philosophy that provides for car mobility but prioritises pedestrian, cyclist and public transport access in the first instance.

This new design philosophy is framed around Vision Zero. Safety is critical to enabling transport choice and mode shift, and the GPS-LT recognises that traditional street and road designs do not provide the level of safety for vulnerable road users that is needed for people to use active modes and public transport. The change in paradigm also introduces a zero tolerance for death and serious injury in the transport system. Importantly from a planning perspective, it shifts the responsibility for crashes from primarily the system users to the system design and system designers.

### 4.1.3 National Policy Statement on Urban Development

The NPS-UD establishes objectives and policies for creating well-functioning urban environments (New Zealand Government, 2020a). The NPS-UD is notable because it considers the interaction between land use planning and transport planning and directs local authorities to update their district plans to take advantage of this interaction. The key way it does this is through the minimum density standards in the walking catchment of city centres and existing/planned rapid transit stops in tier 1 cities. In tier 2 and 3 urban environments, local authorities must consider the level of accessibility by existing/planned active and public transport and enable density to reflect this accessibility.

### 4.1.4 Transport Outcomes Framework

The Transport Outcomes Framework reiterates the critical role a change in transport system design philosophy will play in successful land use and transport integration (Ministry of Transport, 2018). The Ministry of Transport released the Transport Outcomes Framework in June 2018, defining a new set of outcomes for transport that align with Treasury's Living Standards Framework. The Transport Outcomes Framework is described by the government as establishing the groundwork for a strategic approach to deliver a transport system that improves people's wellbeing, and the liveability of places. The five broad outcomes included in the framework are:

- Inclusive access
- Healthy & safe people
- Environmental sustainability
- Resilience & security
- Economic prosperity.

The government states that all the outcomes are interrelated and need to be met to improve intergenerational wellbeing and quality of life across New Zealand's cities, towns and provinces.

## 4.2 Integration in national legislation, plans and strategies

A range of legislation and national-level plans and strategies influence the integration of land use planning and transport planning. In this section we provide a summary of the high-level direction each document provides in terms of integrating land use planning and transport planning. We also provide analysis of how these national-level documents work together to hinder integration. For a more detailed summary of each document, refer to Appendix A.

### Highlights

- The message from government is that land use planning and transport planning need to be integrated and that the **existing road and street network is not fit for purpose**.
- The land use and transport planning legislative framework is very complex.



- This complexity creates the **need for a strong shared understanding** of integrated land use and transport planning if integration is to be achieved.
- There is a risk that **government agencies are working in an uncoordinated way** that undermines land use and transport planning.
- The **political and consultation processes can hinder projects** that would support the integration of land use planning and transport planning.
- The **LGA performance measures and associated local authority planning and reporting process focuses on managing status quo** rather than on how cities make changes and evolve our transport and land use. This presents a barrier to improving the integration of land use and transport during routine maintenance because of ‘like for like’ approaches.
- A **key tension exists** between the direction under the LGA and the direction under the LTMA (and to a lesser extent, the RMA).
- **Good spatial planning underpinned by a strong spatial strategy** is key to achieving integrated land use and transport planning in the future.

### 4.2.1 National legislative framework

There is a range of legislation that controls land use and transport planning in Aotearoa New Zealand. Table 4.1 provides a high-level summary of important legislation, its purpose, and its influence on integrated planning.

**Table 4.1 Summary of land use and transport planning legislation**

Legislation	Influence on integrated land use and transport planning
Resource Management Act 1991 (RMA)	<ul style="list-style-type: none"> <li>• Establishes the framework for the management of natural and physical resources</li> <li>• Establishes the framework for creating national policy statements, national standards, regional plans and policy statements, and district plans</li> </ul> <p>The 2021 amendment was introduced to enable greater residential density in urban areas (the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021). The amendment is focused on increasing housing supply, which would enable people greater choice in where they live within the transport network.</p>
Local Government Act 2002 (LGA)	<ul style="list-style-type: none"> <li>• Establishes local authority organisations and sets out:                             <ul style="list-style-type: none"> <li>– local authority responsibilities to promote the social, economic, environmental, and cultural wellbeing of communities</li> <li>– local authority responsibilities to review the cost-effectiveness of their arrangements for meeting the needs of the communities within their districts or regions for good-quality local infrastructure, local public services, and performance of regulatory functions</li> <li>– requirements for the Secretary of Local Government to make rules specifying performance measures for groups of activities to enable the public to compare the level of service provided in relation to the group of activities by different local authorities, including for the provision of roads and footpaths</li> <li>– requirements for the Secretary of Local Government to consider whether any new performance measures would, amongst other things, address an aspect of the service that is of widespread interest in the communities.</li> </ul> </li> </ul>
Land Transport Management Act 2004 (LTMA)	<ul style="list-style-type: none"> <li>• Establishes Waka Kotahi and the National Land Transport Fund</li> <li>• Requires the preparation of the GPS-LT</li> <li>• Directs local authorities to prepare a regional land transport plan</li> </ul>

	<ul style="list-style-type: none"> <li>• Directs local authorities preparing a regional public transport plan that the plan must take into account the regional policy statement, regional plan, and district plan</li> </ul>
Building Act 2004	<ul style="list-style-type: none"> <li>• Ensures that buildings meet a minimum standard of safety and functionality, and provide for the wellbeing of people who use the buildings</li> <li>• Ensures new buildings, when considered within their immediate environment, contribute to the outcomes envisaged by the GPS-HUD</li> </ul>
Kāinga Ora Homes and Communities Act 2019	<ul style="list-style-type: none"> <li>• Establishes Kāinga Ora – Homes and Communities (Kāinga Ora) and requires it to:             <ul style="list-style-type: none"> <li>– provide good quality housing in a mix of typologies that is well connected to peoples' communities</li> <li>– ensure urban development includes quality infrastructure and amenities, and develops thriving, cohesive and safe places to live</li> <li>– partner and engage meaningfully with other people and organisations</li> </ul> </li> <li>• Provides for the creation of the GPS-HUD</li> </ul>
Urban Development Act 2020	<ul style="list-style-type: none"> <li>• Enables Kāinga Ora to initiate, facilitate or undertake urban development projects</li> <li>• In the case of a Specified Development Project, the Urban Development Act lists principles that apply, including having regard to providing or enabling:             <ul style="list-style-type: none"> <li>(i) <i>integrated and effective use of land and buildings; and</i></li> <li>(ii) <i>quality infrastructure and amenities that support community needs; and</i></li> <li>(iii) <i>efficient, effective, and safe transport systems; and</i></li> <li>(iv) <i>access to open space for public use and enjoyment; and</i></li> <li>(v) <i>low-emission urban environments.</i> (New Zealand Government, 2020b, s 5(1))</li> </ul> </li> </ul>

#### 4.2.2 National-level plans, strategies and guidance

The Ministry of Transport and Waka Kotahi have developed a range of plans, strategies and guidance relating to transport planning in Aotearoa New Zealand. Many of these documents explicitly mention the need for better integration between land use planning and transport planning. Table 4.2 provides a summary of these documents and their influence on integrated planning.

The policy direction of these documents clearly outlines that land use planning and road and street design in greenfield development areas is necessarily integrated and needs to provide for the access and housing choice outcomes the policy is seeking. Together, these documents suggest much of the existing street network in Aotearoa New Zealand’s towns and cities is not fit for the purpose we envision through our planning documents, nor providing the service we require. A different design standard needs to be applied to the physical design of the street and road environments of these urban areas. The new design standard would prioritise levels of service for alternative modes and would need to integrate with both the existing land use environments that may not be adequately served at present and the future higher-density land use environments.

**Table 4.2 Summary of national-level plans, strategies and guidance**

Plan/Strategy/Guidance	Influence on integrated land use and transport planning
Road to Zero 2020–2030	<ul style="list-style-type: none"> <li>• Sets out government target for reducing road deaths and serious injuries by 40% by 2030</li> <li>• Identifies the need to integrate transport with urban and land use planning to deliberately shape how the road network is used and what infrastructure investments are required to promote road safety</li> </ul>
Keeping Cities Moving	<ul style="list-style-type: none"> <li>• Explains the government’s plan to achieve mode shift and reduce car dependency</li> </ul>

	<ul style="list-style-type: none"> <li>• Sets out the three main ways to influence mode shift as:             <ul style="list-style-type: none"> <li>– shaping urban form</li> <li>– making shared and active modes more attractive</li> <li>– influencing travel demand and transport choices</li> </ul> </li> <li>• Emphasises land use planning, street design, TOD and the One Network Framework (ONF) as key tools for achieving mode shift</li> </ul>
One Network Framework	<ul style="list-style-type: none"> <li>• Establishes a new road and street classification system that considers both access and place functions</li> <li>• Is intended to be incorporated into road controlling authority network operating frameworks and the investment decision-making process</li> </ul>
Aotearoa Urban Street Planning and Design Guide	<ul style="list-style-type: none"> <li>• Sets out the implementation of the ONF</li> <li>• Places emphasis on integrating land use planning and transport planning when designing roads and streets</li> </ul>
Arataki	<ul style="list-style-type: none"> <li>• Sets out key changes Waka Kotahi sees as necessary to meet the government’s short-term and long-term outcomes</li> <li>• States that the key changes will be implemented through integrated land use and transport plans</li> </ul>

### 4.2.3 National analysis: How does the existing framework undermine integration

Here we explore five aspects that undermine the integration of land use planning and transport planning within national-level policy:

- the tensions between the objectives of different policy documents
- the complexity of the legislative and planning system
- interagency coordination
- social acceptance of change
- specific requirements embedded in documents such as the GPS-LT and the LTMA.

#### 4.2.3.1 Tension between differing legislative objectives

There are several government policies that have been put into effect over the years. The objectives of these policies reflect the prevalent planning goals of the leadership at the time they were enacted. Some of these objectives are fundamentally different, which creates a tension in the direction they provide for planning. There appear to be two distinct sets of policy direction. These can be broadly characterised as those that have been developed under the LGA planning framework, which represent the old planning regime, and those under the more recent government policy statements and Kāinga Ora legislation, which represent the new UGA regime.

Under the LGA and its interrelationship with the LTMA and some RMA processes, success is defined by the maintenance or renewal of the existing road and street network in ways that support meeting the levels of service expected under the old car-dependent planning regime.

Under the GPS-LT and GPS-HUD and associated plans and strategies, the Kāinga Ora-related legislation, funding processes under the LTMA, and some of the RMA processes and non-legislated plans and strategies of local authorities that align with the government policy direction, there is a desire for a different road and street design with higher levels of service for active modes and public transport and a recognition of the place-making qualities streets can have – where the old car-dependent planning regime level-of-service expectations are no longer considered to be fit for purpose.

In existing urban areas where streets and roads are spatially constrained, these distinct directions can be diametrically opposed in practice – for example, on local residential streets it is not possible to maintain a smooth, fast and unencumbered trip for car drivers to the level they are used to (thus aligning with the old car-dependent planning regime level-of-service expectations) while also slowing vehicle traffic to create safe and amenable environments for active modes (thus aligning with the new UGA level-of-service expectations).

In this situation, outcomes can be seen as falling into three general groups:

- outcomes that align with good integrated land use and transport planning that align with the new UGA level-of-service expectations
- outcomes that are a compromise between the two directions, and therefore do not align well with either of the level-of-service expectations
- outcomes that align with traditional car-based transport planning that align with the old car-dependent planning regime level-of-service expectations.

This is evident in our local authority level stocktake – for example, the current Auckland Regional Land Transport Plan (RLTP) is a compromised plan that tends towards traditional car-based planning, despite the clear strategic direction in the Auckland Plan and the Roads and Streets Framework to prioritise the development of a multi-modal transport network.

#### 4.2.3.2 System complexity

There is a complex array of legislation involved with the design and delivery of land use and transport in Aotearoa New Zealand. This is one of the matters addressed in the Randerson Report (Randerson et al., 2020), but it is also worth considering in a narrower integrated land use and transport planning context. Some pieces of legislation are clearer than others. Below, the relevant Acts and their complexity are outlined.

The **Building Act** is relatively clear and unambiguous. Processes carried out under the Act are relatively simple. In combination with the Building Code of Practice there is clarity of purpose and expected actions – to achieve a minimum standard of safety and functionality, and to provide for the wellbeing of people who use the buildings. The Building Code of Practice defines acceptable solutions for different building components in different contexts, making it relatively straightforward for building practitioners and regulators to use, and the process is not open to political wavering or public consultation.

In comparison, the **LGA, RMA** and **LTMA** and the processes undertaken under these Acts are more ambiguous, although they also aim to provide for safety, functionality, and the wellbeing of people. Outcomes and objectives related to each piece of legislation and for each different local authority area are developed independently as part of a variety of plans and are open to being influenced by political pressures and public consultation. Likewise, the strategic approach to achieving the purpose of these legislations, both in terms of methods and robustness, is at the discretion of each of the local authorities that perform functions under the legislation.

Clear policy is needed at the national government level, together with clear strategic direction legislated to ensure accountability of local authorities and achieve successful integration. This might include, for example, minimum standards/acceptable methods established and required to be included in plans around the strategic approach to achieving the purpose/outcomes.

For land use outcomes, some of these methods are already legislated through the NPS-UD and recent Medium Density Residential Standards amendments to the RMA, but no comparable legislation exists to direct integrated transport outcomes. On this point, we note that whilst Waka Kotahi is working on completing the ONF and the *Aotearoa Urban Street Planning and Design Guide* (part of the strategic approach), these are not required to be included in local authority plans under the LGA, RMA or LTMA. Without either being

adopted into local authority policy, or being included in any legislated plans, there is no accountability for local authorities in terms of aligning their activities with the integrated land use and transport outcomes sought at the national level.

#### **4.2.3.3 Interagency coordination**

Due to the complexity of the planning and delivery framework, there is a risk of agencies working independently to each other in an uncoordinated way. This risk is heightened in the circumstances where different agencies have a different focus. For example, a district council might be concerned with land use outcomes that are not necessarily consistent with the outcomes needed to support high-quality public transport, which is the focus of the regional council. This is consistent with findings of the literature review, which highlights the importance of developing a common purpose across agencies and then providing the conditions for interagency collaboration between staff.

The existing mechanisms embedded in the legislative framework – for example, the regional transport committee processes and the Waka Kotahi funding processes – may not be sufficient to overcome the risks and ensure good outcomes. This is a matter that was raised in the interviews with planning professionals, reported in chapter 5 below.

#### **4.2.3.4 Social acceptance and democracy**

Aotearoa New Zealand is governed under a representative democracy where each voter has a say in who represents them in Parliament and in local government. There is also a high level of discretion for local communities to define the outcomes that are important to them at a regional and district level under the LGA. This means that the higher the level of social acceptance of the direction of government policy, the greater the likelihood of success. This dynamic is especially evident at the territorial authority level, where the council is the road controlling authority. This is because elected officials may choose a direction that does not support good integrated land use and transport planning if their community does not understand the rationale for the change.

Better road and street design could be embedded into the system in the same way minimum building standards are legislated through the Building Act. This would ensure the core elements of safe and equitable transport systems needed to support quality urban form are not bypassed by political processes. This would provide a type of insulation for the core elements of safety and accessibility from political uncertainties.

Nevertheless, a minimum level of social acceptance would be needed to achieve legislative changes, so ongoing public engagement aimed at conveying an understanding of the need for the paradigm shift would still be needed – for example, through a multi-media information campaign.

#### **4.2.3.5 GPS-LT maintenance activity class/LGA performance monitoring and reporting process**

The maintenance activity classes established under the GPS-LT and the LGA performance monitoring and reporting process leads to barriers to improving integration between land use planning and transport planning as part of regular maintenance and renewals.

The Treasury's definitions of 'maintenance' and 'improvements' for street works inadvertently creates a constraint on the use of funding to meet both renewal and strategic objectives. Under the GPS-LT maintenance activity classes, maintenance activities (including renewals, which replace 'like with like') are treated as ordinary activities and require limited justification for funding and do not require consent or consultation. Any works bringing a street up to the standards needed to achieve more effective integrated land use and transport outcomes is treated as an improvement and requires more justification through the preparation of a business case, resource consent and/or public consultation. Improvements also cannot use funding allocated for maintenance. This means that the process to spend money maintaining roads that

retain old layouts and do not integrate land use and transport is easier than the process to implement government policy that supports integrated land use and transport planning, even when a council has a consulted strategic plan in place that specifies a change to the street. This is despite the fact that government policy prepared under the LTMA recognises that most of our urban streets are no longer fit for purpose. This constraint has also been identified by the Auckland Transport Alignment Project (ATAP) mode shift plan Better Travel Choices, which includes a recommendation to ‘pursue opportunities to align maintenance and renewal programmes with improvements to street design and deliver better safety outcomes for active modes’ (Auckland Council et al., 2019, p. 23).

These processes established by the LTMA tend to be reinforced by the way territorial authorities undertake performance monitoring and reporting based on the LGA performance measures for roads and footpaths. These measures cover characteristics including the smoothness of travel, percentage of the road network re-sealed, the proportion of the footpath network meeting the territorial authority’s level of service standards, and safety measured by the change in deaths or serious injuries. Local authorities currently report on these measures in their annual and long-term plans, and this reporting informs how they plan, operate, and maintain their transport networks. However, there are no performance measures that signal to territorial authorities the need for a mindset change in the way they are planning their networks, eg, the need to better prioritise active modes of transport and public transport in their network design. Therefore, there appears to be an opportunity to review the LGA to encourage better integrated planning by shifting to an outcomes-based approach. For example, performance measures for outcomes such as transport mode split or vehicle kilometres travelled could be used rather than deliverables-based measures that are simple to audit but do not advance the outcomes set forth in policy. The combination of maintenance activity classes established under the LTMA and LGA performance monitoring and reporting process raises some barriers to and provides some opportunities for more effective integration of land use and transport planning. These are set out in Table 4.3.

**Table 4.3 Barriers to integration caused by the LTMA and LGA processes**

Barrier	Description
Sub-standard urban streets and roads are being renewed.	Sub-standard urban streets and roads are renewed rather than being improved to the standard needed to achieve effective integration of land use and transport.
The existing urban street and road network is not fit for purpose.	There is no recognition in local authority LTPs that the existing urban street and road network is not fit for purpose in terms of the current GPS-LT and GPS-HUD, so people working with these processes may not be conscious of the need to resource, tactically plan for, and eventually roll out a new standard for the physical design of roads and streets in their jurisdictions.
The current renewal and maintenance systems are inefficient.	Because improvements to the existing street network are treated as extraordinary activities that require more robust strategic justification than renewals, local authorities that are not well resourced will have less ability to access funding than local authorities that are well resourced.  Even in the case of well-resourced local authorities, the current regime lends itself to generating numerous bespoke projects that use a relatively high level of resources and are rolled out relatively slowly if they try to do anything other than the status quo.
The LGA performance monitoring and reporting process is not encouraging a change in local authority level of service	Local authority asset managers may be reluctant to accept street designs that are inconsistent with their existing level-of-service standards, especially if they see this as affecting their ability to manage

standards to align with the ONF and <i>Aotearoa Urban Street Planning and Design Guide</i> .	the efficient operation and maintenance of their street networks, along with other activities like maintaining the berm and rubbish collection.
There is an opportunity to include additional performance measures in the LGA rules to encourage local authorities to upgrade their engineering codes of practice.	This may be more challenging for less well-resourced authorities, may result in inconsistent codes of practice being developed, or may not be a priority for local authorities that are unaware of the benefits the change in levels of service can provide. How to achieve consistent national engineering practices in an efficient way should be considered.

There is a clear opportunity to make changes to the LGA rules and territorial authority planning processes to promote integration in everyday road renewals and maintenance. This could be done through:

- additional performance measure/s under the LGA rules to address needed changes in infrastructure standards
- achieving national consistency in engineering codes of practice
- updating local government level-of-service requirements and expectations to be consistent with the ONF and the *Aotearoa Urban Street Planning and Design Guide*
- streamlining the process for street renewals to align with government policy that supports integration.

Overall, national government policy promotes the integration of land use planning and transport planning. However, in some places it is hindered by legislation that makes it more difficult for councils to transition to an access-focused transport system. There are also challenges from working within a complex system that impedes interagency coordination. Social acceptance and democracy also play a role in reducing integration, particularly where land use and transport projects are controversial or not well understood.

### 4.3 Integration in local government

To understand how legislation and national-level plans, strategies and guidance feed into local government planning, we conducted a stocktake of regional and territorial authority policy and planning. We chose two contexts, Hamilton and Auckland, as examples for our analysis. In addition to analysis of policy documents themselves, we also consider some recent decisions in each city to illustrate how national and local policy leads to decisions that do not always consider integration.

Hamilton was chosen as a representative of the standard local government structure, where Waikato Regional Council has regional government responsibilities and Hamilton City Council has territorial authority responsibilities. Auckland was chosen because of its unique government structure with a unitary authority with both regional government and territorial authority responsibilities. Auckland is also unique because of its separate transport authority, Auckland Transport.

The policy stocktake of these two cities provides a high-level understanding of how national policy is incorporated at the local level. It also allows for comparison between the two government structures.

We reviewed policy documents at the regional and territorial government level, as described in section 2.2. The full analysis of local government planning documents is provided in Appendix B. Table 4.4 describes the indicators we used to determine whether a document supported integrated land use and transport planning.

**Table 4.4 Indicators of integration used in the policy stocktake (repeated from section 2.2)**

Indicator	Description
Prioritisation	What type of users are prioritised within the transport system in the document/decision? Has due weighting been afforded to the needs of people using modes other than driving alone so that a balanced transport system can result?



Density	Does the document actively encourage land use density around frequent transport stops and local, town and city centres, or at least enable land use density and TOD to occur? Density should be able to occur in the walkable and cyclable catchments around frequent transport stops and centres. This indicator is associated with housing choice and affordable housing.
Mixed-use	Does the document actively encourage mixed-use development that will assist with amenities being located near to where people are living and working, or at least enable mixed-use development to occur in this way?
Access or mobility	Does the document/decision embody an access-based design philosophy or a mobility-based design philosophy?
Travel behaviour change	Does the document/decision include soft measures such as mandating travel plans and/or avoiding subsidies for car travel such as free parking?
Urban environmental quality	Does the document/decision aim to improve urban character and amenity, including through reduced dominance of cars within the transport network, and through urban design principles like development contributing positively to the streetscape and public domain or requiring verandas be provided where they will be beneficial?

### 4.3.1 Regional policy and planning

As part of the policy stocktake, we reviewed regional-level planning documents from two regions: Waikato and Auckland. We took four strategic policy documents from each region and assessed their contribution to integrated land use and transport planning, based on the indicators set out above.

Table 4.5 sets out the main findings of the stocktake of regional authority level policy documents in Hamilton. We provide a rating of each document using a colour code system, based on the detailed analysis provided in Appendix B. Green is used where there are strong indicators for good integration, orange is used where there are average indicators, and red is used where the indicators are low or missing.

**Table 4.5 Analysis summary: Hamilton regional policy documents**

Policy	Rating	Summary of comments
Hamilton-Waikato Metropolitan Spatial Plan 2020	Average	<ul style="list-style-type: none"> <li>Addresses most of the important aspects of integrated land use and transport planning.</li> <li>Does not clearly articulate the problem with the poor levels of service on the existing street network and the need to improve the level of service for active modes and public transport on these existing networks if the mode shift goals are going to be reached and in turn the successful intensification of the urban areas achieved. The plan needs clarity in the articulation of this issue and stronger direction to increase the likelihood the lower-order planning processes are going to pick this up.</li> <li>Focuses on the existing commercial areas and consolidating these but does not relate this to the idea of mixed-use development or access rather than mobility.</li> <li>Travel behaviour change is not mentioned, nor is there any direction for territorial authorities on the importance of preparing an integrated transport strategy and the content of such a strategy.</li> </ul>
Hamilton-Waikato Mode Shift Plan 2020	Strong	<ul style="list-style-type: none"> <li>Includes most of the important aspects of integrated land use and transport planning.</li> <li>Recognises the need to re-design streets to accommodate higher quality active mode and public transport infrastructure but doesn't clearly address the need to reduce the vehicle speed profile of streets as part of the re-design.</li> </ul>

		<ul style="list-style-type: none"> <li>• Tends to separate the modes for consideration in discrete design guides, rather than recognising that most of the potential cycling and walking network needs to occur in an integrated way on the existing street network – through integrated re-design of streets.</li> <li>• Identifies a workstream to develop street design guidance. However, waiting for this would delay progress towards better integrated street designs. This could be addressed by adopting the <i>Aotearoa Urban Street Planning and Design Guide</i>, which is already completed, saving a lot of time and resources.</li> <li>• Overall provides some good guidance but may not be implemented by local authorities as it is not legislated or required to be included in any legislated plans.</li> </ul>
Waikato Regional Land Transport Plan 2021–2051	Average	<ul style="list-style-type: none"> <li>• Highlights a funding problem whereby maintenance is funded but improvements have very little funding. Consequently, there are constraints to achieving the mode shift goals and improved level of service.</li> <li>• The prioritisation issue is not as clearly stated as it could be. Mode separation is covered, more amenable streets are covered, safety is covered, a lack of funding for improvements is covered etc, but there is no clear statement that draws these together as a street design issue.</li> <li>• More direction would be useful on how territorial authorities should plan and deliver improvements to infrastructure that supports safe and accessible active travel options.</li> </ul>
Waikato Regional Policy Statement v2018	Low	<ul style="list-style-type: none"> <li>• Recognises the need for integrated land use and transport planning but leaves it up to the territorial authorities rather than providing any direction on this.</li> <li>• Integration is seen as a way of coordinating land use and transport development, not as a tool for achieving specific outcomes.</li> <li>• The Future Proof Areas provisions are a strength but indicate that greenfield development may end up being car-dependent due to low densities. The focus on commercial development in existing centres promotes mobility rather than access, and there is no direction on improving levels of service for active mode users.</li> </ul>

Table 4.6 sets out the main findings of the stocktake of regional authority level policy documents in Auckland. We provide a rating of each document using a colour code system, based on the detailed analysis provided in Appendix B. Green is used where there are strong indicators for good integration, orange is used where the indicators are average, and red is used where the indicators are low or missing.

**Table 4.6 Analysis summary: Auckland regional policy documents**

Policy	Rating	Summary of comments
Auckland Plan 2050 (published 2018)	Strong	<ul style="list-style-type: none"> <li>• Generally well-integrated plan but could improve the clarity around mobility versus access and density providing greater access.</li> <li>• There could also be more clarity on ‘people-oriented streets’ and what is needed in practice to address the issue and achieve the outcomes. This would help lower-order planning processes interpret and implement the changes that are needed on the ground.</li> </ul>
Auckland Regional Policy Statement (Chapter B of the Auckland Unitary Plan Operative in part – Updated 23 June 2022)	Average	<ul style="list-style-type: none"> <li>• The provisions are aimed at integrating land use planning and transport planning but are somewhat open to interpretation due to the higher-level policy position. This means a lot of responsibility falls on the Auckland Plan and Auckland Transport plans and strategies to fill in the details of, for example, how to enable walking, cycling and public transport and minimise vehicle movements.</li> </ul>

		<ul style="list-style-type: none"> <li>The policy statement could provide stronger direction in integrated planning, but the limitations of the RMA apply.</li> </ul>
Auckland Regional Land Transport Plan 2021–2031	Low	<ul style="list-style-type: none"> <li>The plan assumes improvements can be made to the level of service for all modes in the existing corridors, which is difficult to reconcile if the level of service for cars and the level of service for active modes are opposed in existing space-constrained corridors.</li> <li>It is not clear how the plan is related to creating the quality compact urban form and seems generally inconsistent with the strategic approach developed under the ATAP. It seems highly focused on mobility but not concerned with place.</li> <li>Because of Auckland Transport’s organisational separation from Auckland Council, it may tend to be more focused on facilitating mobility rather than placemaking, facilitating access, and addressing climate change issues.</li> </ul>
Auckland Transport Alignment Programme (ATAP) 2021	Strong	<ul style="list-style-type: none"> <li>Includes most of the important aspects of integrated land use and transport planning.</li> <li>Priorities for improving safety and attractiveness for active modes include:                             <ul style="list-style-type: none"> <li>pursuing opportunities to align maintenance and renewal programmes with improvements to street design, and delivering better safety outcomes for active modes</li> <li>integrating the development and delivery of safety and security programmes with ongoing mode shift work.</li> </ul> </li> </ul> <p>However, the current RLTP and Network Operating Plan do not indicate that this is happening.</p>

Overall, the review indicated the national government paradigm shift outlined by national government policy has been, to a large extent, integrated into the regional strategies and plans, although there was weakness in areas under both jurisdictions. For example, there appeared to be a lack of connection between the LTMA plan and the RMA plans and strategies in the case of Auckland. In the case of Waikato, the Regional Policy Statement was updated at around the same time the government released its GPS-LT in 2018, so it has not incorporated the paradigm shift. There is also a general lack of direction at the regional level in Waikato that would ensure territorial authorities are conscious of the need to develop more robust integrated strategies and have guidance on what should be included in those strategies.

### 4.3.2 Territorial authority policy and planning

In this section we begin with high-level observations about the integration of land use planning and transport planning at the territorial authority level in Hamilton and Auckland. We then set out our assessment of selected plans and strategies, and recent decisions in each city that highlight the strengths and weaknesses of the planning framework.

#### 4.3.2.1 Hamilton

Table 4.7 sets out the main findings of the stocktake of territorial authority level policy documents in Hamilton. We provide a rating of each document using a colour code system, based on the detailed analysis provided in Appendix B. Green is used where there are strong indicators for good integration, orange is used where the indicators are average, and red is used where the indicators are low or missing.

**Table 4.7 Analysis summary: Hamilton territorial authority documents**

Policy	Rating	Summary of comments
Access Hamilton Strategy 2010	Low	<ul style="list-style-type: none"> <li>Acknowledges that integration needs to happen but lacks a robust strategy, so it is not clear on how integration should occur.</li> </ul>

		<ul style="list-style-type: none"> <li>• Many of the outcomes are ambiguous and the envisioned future environment is not clearly articulated.</li> <li>• The structure of the plan puts aspects into silos, rather than considering them in an integrated way.</li> <li>• Because Access Hamilton lacks integration in its strategy and strong strategic direction, but includes good general principles and approaches, it would rely on good understanding and practice from those practitioners involved, support from elected officials, and a lot of public engagement to get good integrated outcomes.</li> </ul>
Hamilton Urban Growth Strategy 2010	Low	<ul style="list-style-type: none"> <li>• Transport aspects rely on Access Hamilton.</li> <li>• Target densities outlined for greenfield areas don't seem to be sufficient to support frequent public transport services, so these areas would likely be car dependent when developed.</li> </ul>
City Centre Transformation Plan 2021	Strong	<ul style="list-style-type: none"> <li>• The main weakness is that the plan relies on Access Hamilton, which needs updating.</li> <li>• Has not been formally adopted as policy or incorporated into statutory plans, so there is little accountability in terms of achieving the outcomes.</li> <li>• In general, all the indicators are present and the plan addresses density and mixed-use development well.</li> </ul>
Hamilton Long Term Plan 2021–2031	Low	<ul style="list-style-type: none"> <li>• Uses car-centric level-of-service standards, focusing on maintaining roads that are not suitable to support development intensification.</li> <li>• Does not incorporate the vision set out in the City Centre Transformation Plan.</li> <li>• Does not move away from car-centric planning.</li> </ul>
Long Term Infrastructure Strategy 2018–2048	Low	<ul style="list-style-type: none"> <li>• Discusses density and housing choice but limits mixed-use developments to the city centre.</li> <li>• Recognises the need for improved street design, but this is a challenge that is not resolved by the plan.</li> <li>• The plan also relies on Access Hamilton, which is a weakness.</li> </ul>
Hamilton City District Plan 2017	Low	<ul style="list-style-type: none"> <li>• The Peacocke Structure Plan section explicitly states that active modes should be prioritised, but this is the only section that does this.</li> <li>• The integrated land use and transport aspects that are included in the plan tend not to be integrated with other aspects that are needed to support a successful outcome. It is likely that most of the development rolled out under the district plan will be car-dependent rather than car optional.</li> <li>• The plan incorporates the engineering code of practice for street design by reference, but the code of practice outcomes is not aligned with good integrated planning.</li> </ul>

### **Observations on recent decisions in Hamilton**

In this section we have chosen two examples of recent decisions in Hamilton to highlight how some of the policy weakness identified in the stocktake compound to produce land use and transport decisions that do not result in good integrated outcomes.

#### *Dutch-style versus traditional-style roundabout*

Hamilton City Council recently made the decision to upgrade the Tristram Street/Collingwood Street roundabout in response to the intensification of land use in the area. It is expected that with the opening of the new Accident Compensation Corporation (ACC) building, there will be hundreds of pedestrians crossing the roundabout each day, as well as general residential intensification happening in the area.

Options for upgrading the roundabout were presented to elected members in September 2021. The recommended option was a Dutch-style roundabout (shown in Figure 4.1 below), which would prioritise pedestrians and cyclists and improve safety for all users. There was acknowledgement that the level of service for cars would be affected, with increases in average delay at some of the roundabout approaches. The recommendation was well justified with the statement:

*We are a growing city and in accordance with existing strategies we will have more congestion which we will not be able to continue [to] build our way out of by just adding capacity for motor vehicles – and we need to provide safe alternatives for active modes. (Barton, 2021, p. 62)*

**Figure 4.1 Dutch-style upgrade option for the Tristram Street/Collingwood Street roundabout (reprinted from Barton, 2021, p. 61)**



Elected members requested an independent review of the recommended option. In February 2022, the decision was made to retain the existing roundabout layout and add pedestrian crossings at each approach to the roundabout. The primary reason for this was traffic models showed that the level of service for cars would be compromised in a Dutch-style roundabout, and smaller improvements to pedestrian and cyclist safety could still be made (Tregidga, 2022).

This type of decision illustrates:

- **a lack of accountability** due to the integrated land use and transport planning strategies and plans not being legislated and/or not being adopted policy
- **compromised solutions** due to different level-of-service standards – Vision Zero versus LGA, and a lack of formalised road design standards to achieve Vision Zero levels of service
- **a lack of public buy-in and consequent political influence** in the quality of integrated land use and transport planning and delivery
- **a lack of understanding of the decision implications** for achieving other community objectives – for example, mode shift and a vibrant and central city environment as envisaged by the Central City Transformation Plan and the idea of the ‘20-minute city’. This is symptomatic of a lack of a good integrated transport strategy at the territorial authority level.



### *Rotokauri North Private Plan Change*

The Rotokauri North Private Plan Change is a recently approved privately initiated plan change. The plan change re-zoned 140 ha of Future Urban zoned land to Medium Density Residential Zone, enabling up to 2,000 dwellings to be built in the area. Rotokauri North sits in one of Hamilton’s main greenfield development areas – the broader Rotokauri Structure Plan area – so the plan change provides an ideal opportunity to integrate land use and transport to provide for car-optional development.

The plan for the area includes both land use and transport aspects that will create barriers to achieving high levels of alternative mode use. For example:

- The residential areas are planned for either medium-density detached housing or duplex-type developments – this represents relatively low-density development that does not support high-quality frequent public transport services and results in relatively dispersed development (an example from the district plan is shown in Figure 4.2).
- The street designs for the area include cyclists mixing with vehicles on 40 km/h speed profile local roads, and painted cycleways on 50 km/h speed profile streets and on arterial roads of 60 km/h. These speed profiles present a relatively high risk of serious injury or death for active mode users and create an environment that is not amenable for a proportion of potential active mode and public transport users. Therefore, we would expect mode shift in this area to have limited success.
- Planned residential density does not increase near the planned local commercial centre, so the potential to locate a higher number of residents within a walkable distance from the local centre, and thus providing them greater levels of access, is reduced.

**Figure 4.2** Rotokauri North encouraged dwelling typology – duplex (reprinted from Hamilton City Council, 2017, section 4.14)



### **General observations – Hamilton**

The recent decisions in Hamilton demonstrate the potential barriers to integrated land use and transport planning due to the lack of vertical integration between different levels of government. Our analysis showed that the level of quality in the decisions/documents reduces the lower down the hierarchy the decision/document sits. Documents at the national level such as the GPS-LT, Keeping Cities Moving and

Road to Zero display relatively good indicators. The Hamilton-Waikato Metropolitan Spatial Plan and RLTP display relatively good indicators in some areas but lack strong directives on some of the indicators. Local authority level decisions and documents, especially the legislated documents, tend to lack a strong strategic direction around the indicators and compromise the quality of the outcomes.

#### 4.3.2.2 Auckland

Table 4.8 sets out the main findings of the stocktake of territorial authority level policy documents in Auckland. We provide a rating of each document using a colour code system, based on the detailed analysis provided in Appendix B. Green is used where there are strong indicators for good integration, orange is used where the indicators are average, and red is used where the indicators are low or missing.

**Table 4.8 Analysis summary: Auckland territorial authority level documents**

Policy	Rating	Summary of comments
Auckland Unitary Plan 2016	Average	<ul style="list-style-type: none"> <li>The Auckland Design Manual and Transport Design Manual should inform designs. The Transport Design Manual integrates design guidance with detailed technical requirements in the engineering code of practice – prioritising the level of service for pedestrians and cyclists. However, the Transport Design Manual is not incorporated by reference into the Auckland Unitary Plan, so it relies on practitioner proficiency.</li> <li>Theoretically, subdivision development can provide for good integrated land use and transport outcomes, but some of the important land use and transport aspects are not embedded in the legislated plan, so this is unlikely to happen if other factors like public engagement or lack of alignment between different agencies affect decision making.</li> </ul>
Auckland Long Term Plan 2021–2031	Average	<ul style="list-style-type: none"> <li>Focuses on mobility, rather than access.</li> <li>Uses the One Network Road Classification (Waka Kotahi, 2022a) levels of service to measure success and guide the allocation of transport funding – this classification system and its level-of-service standards do not reflect good integrated planning.</li> <li>Considers cycle and pedestrian networks but does not treat them in an integrated way. They are considered separate to the wider transport system and separate to land use.</li> </ul>
City Centre Master Plan 2020	Strong	<ul style="list-style-type: none"> <li>Primarily concerned with promoting access to the city centre by all modes and reducing car dominance.</li> <li>Supports greater density, more mixed-use and improving the public realm.</li> </ul>

#### Observations on recent decisions in Auckland

In this section we use two examples of recent decisions made in Auckland to illustrate how some of the weaknesses identified in Auckland’s local government policy compound, resulting in decisions where land use planning and transport planning are not integrated.

##### *Plan Change 58 to the Auckland Unitary Plan – Gatland Road Precinct (operative)*

This plan change covered an area of 6.1 ha of rural land adjacent to the existing urban residential area of Papakura and is part of the broader Drury – Opāheke Structure Plan area (Auckland Council, 2019).

The plan change re-zoned the area from Future Urban Zone to Mixed Housing Urban Zone, with a small section of Neighbourhood Centre Zone. It laid out the location and specified the general design parameters for several streets and a dedicated walking/cycling link to be provided within the area once subdivision occurred, as shown in Figure 4.3.



Figure 4.3 Plan Change 58 concept master plan analysis (reprinted from Munroe, 2020, p. 32)



The indicators set out in Table 4.4 and used to assess policies throughout the stocktake show that the plan change includes good integrated land use and transport planning, particularly regarding the transport network as demonstrated by low vehicle speed profiles planned for the local streets, separation of cycles from cars when speed profiles are planned to be over 30 km/h, and the use of small block sizes to create a permeable and walkable street network. Despite this, there may be some areas where there is opportunity for improvement. For example:

- The site is within the walking catchment of a planned frequent public transport stop, so a higher development density should be enabled. This could have been the outcome of the density changes intended to be introduced by the NPS-UD, but our understanding is that the plan change site has already been developed, so this opportunity no longer exists in practice.
- At 60 km/h (see Table 4.9), the speed profile identified for Great South Road seems too high for the surrounding residential neighbourhoods, and the plan change did not specify if the cycle provision on Great South Road should be physically separated or painted-on. Good practice would be to physically separate the cycle way from the vehicle carriage way when design speeds are 40 km/h or more.

**Table 4.9 Plan Change 58 minimum street design elements (reprinted from Auckland Council, 2022, section I446, p. 8)**

Road name (1)	Proposed role and function of road in precinct area	Minimum road reserve (2)	Total number of lanes	Design speed	median	Cycle provisions (3)	Pedestrian provision	Freight restrictions	Access restrictions	Bus Provision
Great South Rd	Arterial	30m	4	60km/h	Flush	Y	Both sides	Y	Y	Y
Gatland Rd	Local	16m (5)	2	30km/h	N	N	Both sides	N	N	N
Amenity Link Rd	Local	22.2 m	2	30km/h	N (4)	N	Both sides	N	N	N
Local internal roads	Local	16m	2	30km/h	N	N	Both sides	N	N	N

Note 1: The inclusion of the minimum road width, function and required design elements for Great South Road and Gatland Road in Table 1 are provided for context only.

Note 2: Typical minimum cross section which may need to be varied in specific locations where required to accommodate batters, structures, intersection design, significant constraints or other localised design requirements.

Note 3: Cycle provision generally not required where design speeds are 30 km/h or less traffic volumes less than 3000 vehicles per day.

*Plan Change 49 to the Auckland Unitary Plan – Drury East Precinct (awaiting a decision on submissions)*

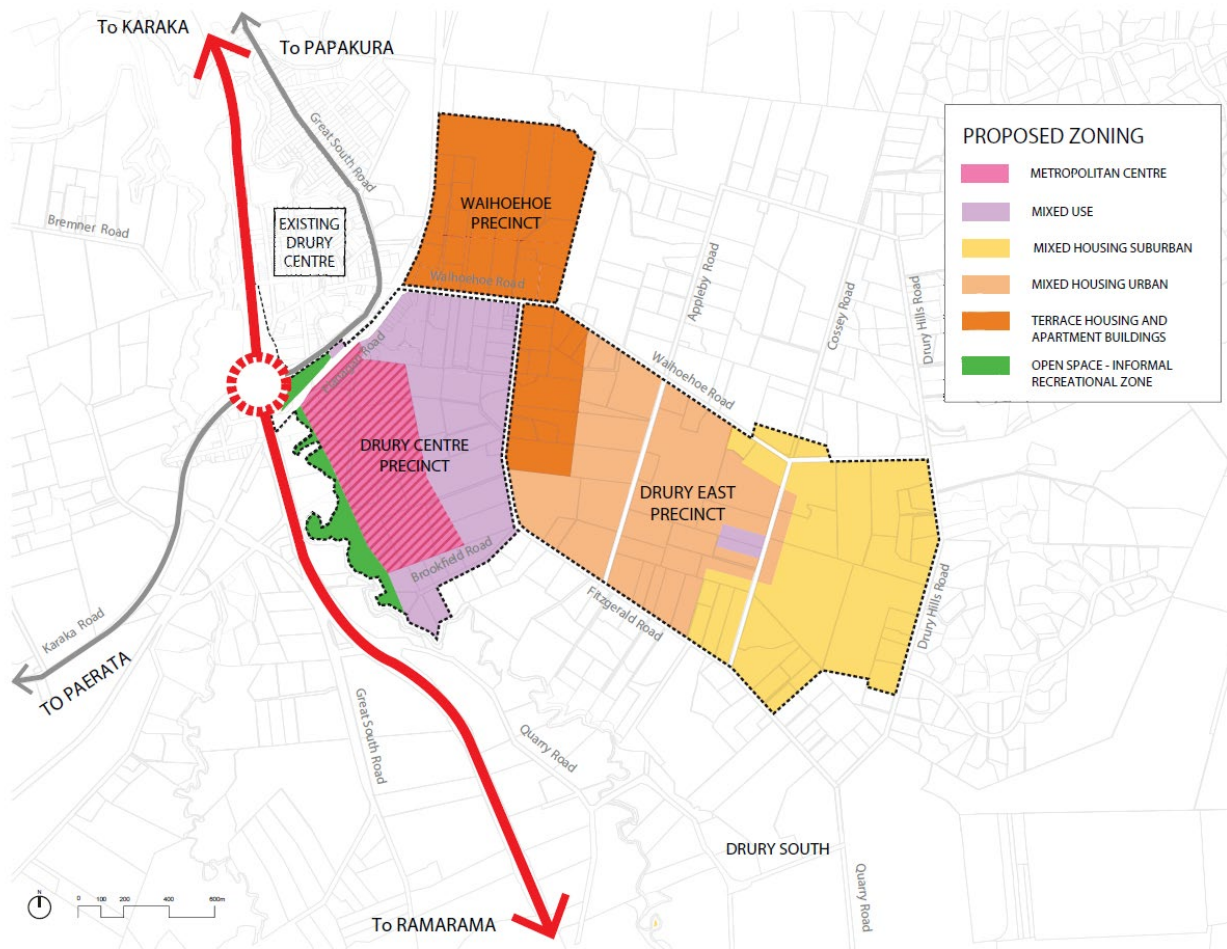
This plan change request covers an area of 187 ha of rural land, situated between Waihoehoe Road, Drury Hills Road and Fitzgerald Road, around 600 m to the east of the existing urban area of Drury (Auckland Council, 2020b). The area is part of a broader Drury – Opāheke Structure Plan (2019) area, and the plan change was lodged concurrently with two other plan changes that cover the Waihoehoe Precinct and the Drury Centre Precinct.

The plan change request proposes re-zoning of the area from Future Urban Zone to a range of zones:

- 22 ha of Terrace Housing and Apartment Building Zone
- 65 ha of Mixed Housing Urban Zone
- 95 ha of Mixed Housing Suburban Zone
- 2 ha of Business – Mixed Use Zone.

These proposed zones are shown in Figure 4.4.

**Figure 4.4 Plan Change 49 (Drury East Precinct) proposed zoning map (reprinted from Auckland Council, n.d., p. 3)**



The plan change request also lays out the location and specifies the general design parameters for several street typologies and dedicated walking/cycling infrastructure proposed within the area. The broader area encompassing all three plan changes, referred to as Drury East, includes a planned bus interchange and a planned rail station, along with a frequent public transport network and a local bus network with a frequency of at least every 20 minutes between 7:00 am and 7:00 pm.

The indicators set out in Table 4.4 and used to assess policies and plans in this report show that the plan change includes good integrated land use and transport planning, particularly regarding the transport network. As with the Plan Change 58 example above, this is evident in the low vehicle speed profiles planned for the local streets and separation of cycles from cars when speed profiles are planned to be over 30 km/h on the collector and arterial routes, and higher-density development focused around the commercial areas and key public transport infrastructure.

However, the approach of tapering off development density the further the location is from the train station and commercial centre of the overall development area, to transition development to the surrounding rural areas, does not seem logical. There is no other obvious reason for limiting the densities in the outer areas of the development, which are still relatively close to the commercial areas and public transport facilities. This approach does not support a higher-quality public transport network in the areas planned to be less densely developed, nor does it support the viability of providing a good variety of services in proximity to the residential areas (ie, in the local neighbourhood centre), and therefore will result in unnecessary levels of car dependency in these areas.

Although at the time of writing the plan change request had not yet been decided, the documentation associated with the hearings indicates that one of the main problems with integrating the transport aspects of the proposed development is the cost of the surrounding transport infrastructure to support the development, including supporting active mode and public transport infrastructure, and the lack of capacity within Auckland Council/Auckland Transport to deliver this infrastructure (Auckland Council, 2021). One of the methods for addressing this issue is outlined as being a review of the development contributions policy.

The problems with funding the supporting infrastructure may indicate a flawed spatial planning process that has identified types of development (potentially car dependent) and areas for growth that are not efficient to service from a transport infrastructure perspective.

### ***General observations – Auckland***

Indications are that private sector developers have adopted a good transport design philosophy that is consistent with the change in mindset directed by the GPS-LT. However, integrating development densities in plans to support high-quality public transport and better local services for residents could be improved.

The main issue in Auckland seems to be the coordination and funding of transport infrastructure to support the mode split outcomes sought for growth areas, both inside the existing urban area and in greenfield development areas. This is indicated through:

- the lack of connection to the outcome of a quality compact urban form
- the unreconciled matters around prioritisation of modes in street design in the Auckland Transport RLTP
- the lack of acknowledgement that the level of service provided by traditionally designed streets is not fit for purpose in terms of achieving the outcomes sought by the government policy direction.

These higher-level issues tend to manifest in the development that is managed through the regulatory processes of the RMA – for example, through a lack of quality in the connecting pedestrian and cycling infrastructure to support car-optional higher-density development proposals.

The horizontal separation between Auckland Council and Auckland Transport, and the tensions between the current government policy direction and the LGA performance measure reporting process, may worsen these issues. The performance reporting environment – through reporting on smoothness of roads rather than the outcomes of investment, for example – leads to a situation where Auckland Transport continues to focus decision making around mobility and maintaining levels of service for car drivers. This can lead to outcomes that contradict Auckland Council's policy direction, which is more in line with the mindset change evident at the national level – that is, outcomes that prioritise modal choice and access to opportunity through integrated land use and transport planning.

## 5 Interviews with planning professionals

We conducted interviews with six planning professionals to gain a deeper understanding of how integrated land use and transport planning is, or is not, occurring in practice. In this chapter we summarise the main findings of the interviews.

### Highlights

- **Interagency and interpersonal relationships** are key to enabling land use and transport integration at all levels of government.
- There is **optimism** about the general direction of **national government policy**, and confidence that with some changes, integrated land use and transport outcomes can be achieved.
- **Silos** between land use and transport departments **affect integration** at all levels of government.
- Key barriers to integrating land use planning and transport planning include government structures, local authority capacity, politics, funding, and business-as-usual mindsets.
- Key opportunities for future integration include Aotearoa New Zealand's general policy direction, resource management reform, and making better use of funding to direct land use and transport outcomes.
- **Kāinga Ora has a unique role** to play in supporting integrated land use and transport planning in Aotearoa New Zealand.

### 5.1 Definitions of integrated land use and transport planning

Each planning professional was asked to provide their own definition of integrated land use and transport planning. All the definitions tended to have two components:

- processes that enable integration
- outcomes of integration.

All the professionals mentioned outcomes they saw arising from well-integrated land use and transport planning, and five of the six described processes for going about integrated planning.

#### 5.1.1 Processes

The professionals tended to see integrated land use and transport planning as a process that involved the planning of land use and transport together.

- At the national government level, one professional described the need for policy agencies to collaborate to decide on processes, outcomes, principles, actions and relationships and then work together to provide the policy conditions and investment required to achieve the outcomes.
- At the local authority level, another professional described how discrete decisions relating to transport must consider land use, and vice versa, to avoid unintended consequences.
- Another professional from Waka Kotahi described how at all levels of government, land use planning and transport planning must be conducted simultaneously. They also discussed the importance of having planners and decision makers at every level of planning who understand both land use planning and transport planning to facilitate this process.

Some of the definitions included integration beyond just land use and transport planning. One professional discussed the idea that integration must occur through different timescales. Decision makers need to

consider the fact that land use and transport decisions have impacts that reach far into the future, and that land use or transport decisions made now will influence the built form for decades to come.

### 5.1.2 Outcomes

A range of outcomes were discussed by the professionals. In general, the benefits described by professionals were quite different to those discussed in the literature review. Outcomes were largely framed in terms of benefits to the public, or benefits to planners. Little focus was given to broader outcomes discussed in the literature review like greenhouse gas emissions or health benefits.

The benefits to the public included land use and transport characteristics that leverage reciprocal gains, such as dense urban form with transport systems that both support and are supported by that density. Places with well-integrated land use and transport planning were described as being easy for people to get around and access the things they need. One professional stated:

*So to me, it's about Joe Bloggs on the ground, understanding why we've got mode shift, understanding why we have a new built environment and understanding what the net benefit to them as an individual is. ... Joe Bloggs on the ground, who can walk to work, who can take the public transport of their preferred choice to education.*

The benefits of integration to planners highlighted by the professionals included a more efficient system where integration occurs between land use planning and transport planning, but also between different levels of government and the implementation level. One professional described it in the following way:

*I think it starts at the very highest level around the integration of government direction at the GPS level, right down to integrated consenting strategies. ... Those conversations should be effortless because it's tracked right down from the GPS.*

This integration would achieve a more efficient planning system where objectives or decisions made at the strategic level do not have to be rehashed at the implementation stage or at the lower levels of the planning system.

## 5.2 Current state of integration

Each planning professional was asked about how well they thought land use planning and transport planning are integrated within the current system. Overall, the professionals tended to mention aspects of the planning system that are not working well more often than things that are working well. In general, the various professionals had similar sentiments towards each of these themes; however, we have identified where there were opposing views. The main themes are outlined below.

### 5.2.1 Things that are working well

Some professionals focused on specific policies or strategies that they saw as supporting integration between land use planning and transport planning in their work. Many professionals emphasised the importance of different relationships in supporting integration, such as formal relationships between institutions. Others gave specific examples of cities where integration was being done well. Hamilton was the most common example, potentially due to the fact that two of our interviewees work there.

#### 5.2.1.1 Strategic planning

Three of the professionals had positive things to say about the state of integration in Aotearoa New Zealand's strategic planning sphere. Two of these comments were about the general planning direction set by national government. The UGA, the NPS-UD and the emissions reduction strategy were all seen as having positive influences on the general direction of policy. While this policy set a good direction, the



professionals then went on to discuss some of the weaknesses in implementation (these comments are discussed in section 5.2.2.2).

One professional described the Future Proof document and development of the Waikato Expressway as an example of where integration has worked well. Despite having different goals to integrated planning projects today, in general the strategies set out in the Future Proof document have been successfully implemented. The Future Proof model could be studied further and replicated to achieve integrated land use and transport planning outcomes such as mode shift or TOD.

### **Hamilton**

Hamilton was provided as an example of a city doing good things by four out of six professionals (only one of whom works for Hamilton City Council). Most of the aspects raised by the professionals we interviewed related to land use, while transport outcomes in Hamilton were not as strong. Hamilton provides an example of a city with strong potential to achieve high levels of land use and transport integration, based on its existing land use patterns.

Aspects the professionals raised as things Hamilton is doing well include:

- adopting the ONF into its future state planning
- providing thought leadership on how the 20-minute city could work in an Aotearoa New Zealand context
- achieving good distribution of town and neighbourhood centres – ‘You can actually pop out to your local dairy within walking distance,’ as one professional described it
- achieving relatively compact growth with high rates of intensification
- producing structure planning for the Peacocke suburb to a high level of detail.

### **5.2.1.2 Relationships**

Several professionals discussed the importance of relationships in facilitating integrated land use and transport planning. This broadly reflects the findings of the literature review, which showed the importance of relationships between staff working at different government agencies.

Key relationships that facilitate or hinder integration include those between:

- different government agencies
- government agencies and local authorities
- different departments within local authorities
- neighbouring local authorities
- Auckland Council and Auckland Transport specifically.

At the national government level, Kāinga Ora staff placed great importance on relationships with other government agencies, councils and iwi. Staff described being intentional in establishing formal relationships with councils where there is significant redevelopment or public housing activity. This is facilitated by the focus on partnership in the Kāinga Ora operating principles. Having these strong relationships with agreed principles between the partners then supports projects when they become more challenging:

*And that quite formal structure with the council has, I think, been helpful when things get sticky down in the project space.*



Relationships with Waka Kotahi are particularly important to Kāinga Ora. Both formal relationships set out in a memorandum of understanding and personal working relationships were described as key to solving challenges or conflicts between Waka Kotahi and Kāinga Ora objectives.

Relationships are also important tools for achieving integrated land use and transport planning at the local level. A professional working at the city government level spoke of the importance of internal relationships between people working in different teams at the city council. He said:

*It all makes perfect sense when you're around the table with the transport manager or the roading manager and the three waters manager or whoever it's going to be, and to deliver a good outcome.*

### **Roskill Development – Freeland Reserve**

The Kāinga Ora development in Roskill was raised by one professional as an example of where institutional relationships have contributed to integrated land use and transport planning outcomes, as well as integrated stormwater management. The Freeland Reserve upgrades were a partnership between Kāinga Ora, Healthy Waters, Auckland Council and Auckland Transport.

The project is a great example of where construction for one factor (the stormwater upgrades) was leveraged to provide additional transport and recreation benefits that reflect the surrounding land uses. The need for better stormwater management triggered the project, but the final product included a cycling and walking connection between the residential land use and the local school, and the creation of a 'Play Street'.

When describing this project, the professional said:

*I think that both of those examples really demonstrate that whilst there might have been a slightly higher capital cost to deliver the works for Kāinga Ora, if you were to take an all of Crown and all of community approach, the cost will actually be significantly lower than in terms of the outcomes of the benefits that you're going to see as a result. So, I think at a smaller scale, we're actually working really, really well.*

## **5.2.2 Things that are not working well**

The professionals tended to have more to say about aspects of the land use and transport planning systems that are currently not working well. These mainly related to strategic planning failures, the gap between planning and implementation, and challenges related to funding. Ōhinewai was a commonly raised example illustrating some of the challenges in integrating land use planning and transport planning.

### **5.2.2.1 Strategic planning**

Three professionals described aspects of strategic planning that are working well, such as the general national policy direction, as described in section 5.2.1.1. These same professionals also described shortcomings of strategic planning, particularly how there is inconsistency between some national government agencies.

Professionals raised the point that there is misalignment between policies or strategies coming out of national government. This was recognised by professionals working at the national government level, who pointed out challenges in reconciling policies between organisations, as well as within organisations. Conflicts between Kāinga Ora and Waka Kotahi policies were provided as an example. It often takes time and litigation to clarify how the organisations' priorities and policies are meant to work together, which takes time and resources away from the two organisations' primary functions.

This misalignment was also noted at the local authority level. A key challenge identified by these professionals was having to balance competing priorities from national government policies developed under the RMA, LGA and LTMA. The professionals described a need to make trade-offs between the priorities identified under each of these Acts without having clear guidance on the hierarchy of policy documents prepared under the three Acts. Having clear guidance on how to balance or integrate competing priorities would improve integrated land use and transport planning at the local level:

*Strengthening the linkages between those three pieces of legislation [RMA, LGA and LTMA], that's really important, and creating a clear hierarchy or sequence between those would be really important as well.*

#### 5.2.2.2 Implementation

A key weakness of the current system is the disconnect between the strategic documents that do set an integrated direction for land use and transport planning, and the implementation of these strategic documents. The main aspects that were identified by interviewees as hindering implementation include:

- **different interpretations** of various national government policies at the local level, which undermine the policy intent if implemented
- **poor communication** of important principles or outcomes between decision makers and people doing the on-the-ground implementation, which means important details from a design is lost at the construction phase
- **a lack of monitoring** to ensure policies have been implemented correctly (eg, monitoring developer compliance with development codes of practice)
- **a lack of enforcement**, which reduces accountability at the national government and local authority level
- **the ability for policy intent to be eroded** through private plan changes.

#### 5.2.2.3 Funding

Multiple professionals described challenges due to the lack of integration between funding streams when trying to integrate land use planning and transport planning. These challenges are closely linked with the lack of integration between strategies coming out of national government, as discussed in section 5.2.2.1.

The professionals noted problems with funding, including:

- **Frustrations with the political nature of funding decisions**  
Often decisions with significant impacts at the local level are made by national government and are heavily influenced by the politics of the day. Examples include decisions about a second Auckland Harbour crossing, Light Rail, and Mill Road, which all influence the level of land use and transport planning in Auckland, but funding decisions were made at the national government level.
- **A lack of coordination between the timing of different funding mechanisms**  
This means that at the local authority end, it can be difficult to coordinate implementation of land use and transport projects when funding availability is out of the local authority's control.
- **A lack of integrated land use and transport funding**  
Much of the funding available is specifically for either land use or transport planning. A fund specifically for integrated projects, or assessment criteria that prioritise integrated land use and transport planning projects, could overcome this.

### **Ōhinewai**

The Sleepyhead development at Ōhinewai was raised by several professionals as a very recent example that did not integrate land use planning and transport planning. The development involves re-zoning 176 ha of rural land in Ōhinewai, in an area where no growth was anticipated by any Waikato strategic plans. The re-zoning would allow for the development of a large factory providing 2,600 jobs and 1,100 new homes.

Some of the key problems with this development raised by the professionals were that it contradicts the Future Proof Strategy and that the effects on the transport system of the proposed land use have not been properly considered.

Interestingly, the Sleepyhead development is seen as a land use factor that will influence poor transport outcomes, but also as a land use response to historical transport decisions. One professional speculated that Sleepyhead would not have chosen Ōhinewai as a development site if the large interchange nearby had not been built.

## **5.3 Barriers**

Each of the planning professionals were asked about the barriers preventing the integration of land use planning and transport planning, now and in the future. Here we discuss the five most commonly identified barriers, which relate to:

- organisational structures
- capacity of local authorities
- the influence of politics
- status quo mindsets
- the effects of historical decisions.

Each of these themes was raised by at least four of the professionals.

### **5.3.1 Organisational structures**

Challenges relating to organisational structures were raised in all the interviews. These related to national government structures as well as local authority structures. We have separated comments about local authority structure into two groups:

- comments about Auckland Council and Auckland Transport
- comments about standard local authority structures with a regional and territorial authority.

Many of the comments raised about organisational structure reflected the findings of the literature review. The literature identified the importance of collaboration between different government agencies and the creation of shared goals and objectives. On the other hand, interviewees described challenges with the siloed nature of some government agencies.

#### **5.3.1.1 National government**

One of the key challenges raised in terms of national government structure was the siloed nature of the responsibilities of various government departments and agencies. At the most basic level, all government agencies are theoretically working to make Aotearoa New Zealand a better place to live. However, two professionals working at the national government level described how this siloed structure establishes a way of working where staff at various national government agencies revert to defending their organisations'

interests rather than the best outcomes for the community. Other consequences of a very siloed way of working are the various legal battles between government agencies to protect the interests of each agency.

Professionals working in local authorities also provided observations on the siloed nature of national government agencies responsible for land use or transport planning. One participant remarked:

*So sometimes you get the different government departments pulling in different directions, and it can be pretty unhelpful when you're trying to deliver an outcome, you know, and often you'll see different government departments in spats with one another over different things because they're both driving different agendas.*

A professional at Kāinga Ora described investigating ways to overcome this siloed nature – for example, through a secondment from Waka Kotahi – however, this was not without its challenges. They said:

*So we are always looking for opportunities to build those bridges that lead to a shared culture of how we solve problems, because that's what we're both in the business of is solving problems for the benefit of Aotearoa. So it would be great if there was a way of fast tracking that process.*

### **5.3.1.2 Auckland Council and Auckland Transport**

In general, the separation of responsibilities between Auckland Council and Auckland Transport was seen as a barrier to integrating land use planning and transport planning. Having a separate council-controlled transport authority was seen as having a siloing effect that reduces integration between land use planning and transport planning in Auckland.

One professional felt Auckland Transport is too heavily influenced by Waka Kotahi and described them as a 'Waka Kotahi controlled organisation' rather than a council-controlled organisation because of the funding arrangements between Waka Kotahi and Auckland Transport. This presents challenges to Auckland Council if it cannot be confident in the implementation of the transport aspects of its plan for Auckland.

Some professionals suggested that the Auckland structure was better suited to areas with little growth and where a separate transport authority would only have a service provision role. In Auckland, where there are very high levels of growth and where the city transport system is undergoing significant transformation, professionals suggested there would be more integrated outcomes if some of Auckland Transport's strategic functions were pulled back to Auckland Council, or if there was stronger reporting/accountability from Auckland Transport to Auckland Council.

### **5.3.1.3 General local authority**

The structure of general local authorities with a regional council and territorial authority was raised less often than the Auckland unitary structure. However, the theme of silos continued in these discussions. Three professionals at each of the three levels of government commented on how the structure of local authorities reduces councils' ability to achieve integrated land use and transport planning. Their key points on government structure were separation between:

- land use and planning work streams
- strategic planning, and asset management or maintenance teams.

## **5.3.2 Local authority capacity**

A key theme raised by professionals at all levels of government is the capacity challenges local councils are facing. This is a capacity challenge in terms of having enough staff to manage an increasing workload. It is also a capability challenge in terms of finding staff with the right specialist knowledge to achieve integrated land use and transport planning.

In four of the five interviews, professionals raised the point that local authorities are under immense pressure with several reforms affecting local authority, alongside climate change impacts. As one professional put it:

*We have noticed the sheer amount of change that is impacting and will impact local authority in more regional provincial parts of the country is really challenging. And you know, and they've got RM [resource management] reform. They've got local authority reform. They've got three waters reform. They are under resourced. They have a low ratings base. They've got decrepit infrastructure. They've got resilience issues. It's like, you know, they can't afford to pay planners, even if they could get planners to work for them.*

Another key point raised by several professionals is that there is no formal definition of what 'transport planning' is, and no formal training available in Aotearoa New Zealand where someone can train as a transport planner. This means transport planning relies largely on engineers, and to a smaller extent, land use planners to fill roles that other countries have specialist training programmes for. A particular gap noted by one professional was a lack of capacity and capability in the strategic network planning space.

As mentioned in the discussion about implementation in section 5.2.2.2, there is inconsistency in the way policy is implemented at the local level. A couple of professionals theorised that this stems from a lack of understanding of the intentions of national government policy, which could be remedied by improved guidance from national government. Another suggestion was that international concepts like the 20-minute city, TOD or Vision Zero were not well understood at the local level in Aotearoa New Zealand.

### 5.3.3 Politics

The professionals we interviewed discussed some political issues affecting the integration of land use planning and transport planning. The main issue was that local elected members have a great deal of power to influence the integration of land use planning and transport planning through their ability to influence local plans and strategies, or specific projects. Two factors influence this issue:

- The fact that elected members are held accountable by their constituents. The example of density was used by a professional to illustrate how elected members would not support ideas if they thought there was not support or understanding from the community.
- The limited level of understanding of land use and transport issues and interventions among elected members.

One professional built on this to say that built form reflects social and political values of the time. They used areas of Waitakere City as an example, where development had been pushed out into natural areas that were politically acceptable at the time. If the same development were to be proposed today, politicians and the public would never accept it. Many historical decisions like this continue to affect built form and our ability to integrate land use planning and transport planning today.

General local politics can also influence specific projects. This was a point raised in the Kāinga Ora interview, where a professional described having to make modifications to projects because of backlash from the local community. In the case of Kāinga Ora developments, much of the local resistance comes from characterisations of Kāinga Ora customers but ends up affecting the built form.

Even outside of Kāinga Ora projects, a lack of understanding of the processes and outcomes of integrated land use and transport planning from local communities can also lead to outright rejection.

Additionally, interviewees noted the impacts of national government politics on local funding (as discussed earlier in section 5.2.2.3).

### 5.3.4 Status quo mindsets

The difficulty in overcoming status quo mindsets was mentioned by five of the six professionals. This mindset was described as existing at all levels of government, in local elected members, and in the public. Despite all relating to mindsets, there were diverse comments on what the mindset barriers actually are.

Two professionals described a legacy engineering mindset within parts of Waka Kotahi. Some parts of the organisation are involved in providing better integration between land use planning and transport planning. Other parts are concerned with maintaining an overly large roading network, which stems from the organisation's historical focus on the state highway network.

At the local authority level, the major mindset barrier discussed was attitudes to new ideas such as medium density. Many local authority planners and elected members assume that because their city has never had medium- and high-density housing, the public will never accept it or it will not work in their context. Other professionals described how even when local authority planners and politicians accept an idea, it does not mean they are ready to put in the effort of educating the public or pushing for controversial ideas:

*But, you know, when people get in decision making spaces and then they get told that we have to make decisions differently, well, that's hard on their careers, and in a way I think that we should expect resistance. And we do need a sophisticated way to address that.*

There is also a perception that the current way of doing things is 'good enough'. One professional described some difficulty working with a local authority to create medium-density housing. They described a lack of vision or ambition within the council to provide really good outcomes:

*We're literally just subdividing and putting like two houses on the back of one; it's non-complying activity. And they're like, 'Oh, well you can still get consents so what's the problem?' Yeah, but you don't see we possibly would have considered amalgamating those three sites that are next to each other and building an apartment here. ... But because it was a non-complying activity, we went for the lowest denominator just to get some houses rather than the right houses in the right location.*

One professional described how the status quo mindset is built in to planning convention – for example, through urban design guidance, engineering codes of practice or integrated transport assessments:

*But I also know that if a developer comes in and they try to do something that's different, if they try and implement complete streets with, you know, with raised tables, at the raised tables, at the edges of a block. ... Yeah, it's hard for them to do that because it's not what development engineers are used to seeing.*

Another professional illustrated how the engineering mindset is built into land use and transport planning through our transport models:

*It feels to me like the strategic demand model is kind of seen as God. It gives the answer. You know, it shall be obeyed. Whereas they're asking it to do things that it was not designed for. And when you interrogate its assumptions, it's not very good at it. And the modellers are quite happy to tell you that the decision makers within AT [Auckland Transport] certainly do not portray that level of complexity or level of randomness possibly; even they portray it as 'this is the evidence'.*

### 5.3.5 Historical decisions

Several of the professionals discussed the challenges that historical land use and transport decisions have created. We have already discussed the Ōhinewai example above, where a historical transport decision has provided the opportunity for less-than-ideal land uses today.

Other historical decisions and processes raised by the professionals included the following.

- Decision-making processes of the past (particularly business cases) have focused heavily on the level of service for cars. This has created an expectation that the level of service for cars will continue to be prioritised, which is difficult to overcome in today's business cases.
- Auckland faces specific challenges because of its history as disparate settlements that have combined into one super city.
- Historically, state highways have been prioritised over other forms of transport. Status quo bias leads to maintenance of the current system being prioritised over investment into modes that may better support integrated planning.
- Past decisions on land use have created housing demand further away from main centres as people chase lower house prices. This means today we must come up with transport solutions as larger numbers of people commute from further away.

One professional raised the point that now that we know how long the legacy of land use and transport decisions are, we must be careful about decisions we make today:

*I think, if you look around Hamilton and the completion of Waikato Expressway and the interchanges around that, I mean, we're already getting huge pressure in terms of ad hoc growth around those. So I mean, I don't know what an interchange costs these days. It's going to be a big number and those land use patterns that set up around that are going to last for 50 to 100 years or more. So, are we happy with that, like, is it a good outcome?*

### **Auckland Northern Busway**

The Northern Busway was described by two professionals as an excellent transport project. One said it was an example of good interaction between land use and transport, while the other focused on the unintended land use outcomes of the busway. We think it provides a useful example for illustrating the cyclical relationship between historical land use decisions and transport decisions.

As mentioned in section 5.3.5, people are often driven away from employment centres by land use decisions that make it an expensive area to live. House prices have led to large amounts of development away from Auckland's centre, but employment opportunities have not followed this development, meaning people still have to commute to the city centre. The busway was largely developed to provide transport choice for people who live to the north of Auckland (from Hibiscus Coast to the North Shore) and who work in the city centre. The busway has been hugely popular and has subsequently improved the attractiveness of areas served by the Northern Busway, leading to more development in the area and supporting cross-town travel for employment.

While there are strengths and weaknesses to implementing this type of solution, it highlights the fact that land use and transport decisions are interrelated and complex. It also highlights the need to carefully consider the potential outcomes of land use decisions on transport and vice versa.

## **5.4 Opportunities**

Each of the professionals were asked about opportunities for improving integration between land use planning and transport planning. There was more diversity in the answers relating to opportunities than there was for barriers. Here we present the opportunities most commonly raised by professionals, as well as opportunities from specific tools or for specific organisations. The common themes include Aotearoa New Zealand's general policy direction, resource management reform, and funding. We also discuss opportunities unique to Kāinga Ora and opportunities from the ONF and '20-minute city' concept.



### 5.4.1 Policy direction

In general, many of the professionals were optimistic about the current policy direction coming out of national government. Factors including the NPS-UD, the GPS-LT, the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act, other resource management reform, Vision Zero, and the ONF were all raised as opportunities to achieve better outcomes in land use and transport planning for Aotearoa New Zealand. The key to unlocking these opportunities comes from better implementation.

One professional compared their experience in Australia to Aotearoa New Zealand:

*So New Zealand's able to move quicker on reform processes if it chooses to. And that's a good benefit, and we see that in transport in terms of New Zealand having better policies on some things – better emissions reduction strategies, better road user charging system than Australia. Far better ... Here it's easier to get policies and strategies up, but then it appears to be harder to actually implement them.*

The professionals raised three main ideas for improving implementation of integrated land use and transport policy:

- Increase guidance from national government on how to put national government policy into practice. An example raised by two professionals was advice on how to produce and operationalise spatial plans.
- Ensure much stronger enforcement, tied to funding. This is discussed in more detail in section 5.4.3.
- Improve collaboration between local authorities and national government in developing integrated land use and transport planning policy. This is the approach a professional described being used in Australia, which took longer but ultimately resulted in better implementation.

The different professionals' ideas could be combined into a 'carrot and stick' approach. Improved guidance and collaboration from national government can help local authorities understand how, and why, they should implement integrated land use and transport policy. The enforcement 'stick' would then be used to ensure a minimum level of compliance with national government policy at the local authority level.

### 5.4.2 Resource management reform

Despite not being asked directly about the effect resource management reform may have on the integration of land use planning and transport planning, three of the six professionals saw opportunities in the proposed reforms. In particular, they saw opportunities to improve integration through the proposed Strategic Planning Act, which they hoped would improve land use and transport integration at the spatial planning level.

Another professional disagreed with this view and thought that there was limited potential for legislative change to make meaningful change at the implementation level.

### 5.4.3 Funding

Because funding was identified as a key barrier, many of the professionals saw opportunities in improving funding so that it can enable integrated land use and transport planning.

One suggestion was tying national government funding more closely to land use planning. In funding decision making, weighting could be given to local authority transport projects that specify integration with the surrounding land use to ensure the best integrated projects get funding. This was backed up by another professional who emphasised how local authorities want to maximise their investment so will align closely with the GPS-LT to encourage co-funding from national government.

A third professional spoke of the importance of funding consequences when local authorities ignore national policy or guidance:

*And that's something for the Ministry and to some extent for Waka Kotahi. They should have a system in place where if a council or road controlling authority does something that they think is really bad and they did it against advice and against standards, in the next year, there should be consequences for that organisation and those consequences should be public so that the decision makers at the top of those organisations have to defend themselves or get called to account on it.*

One of the professionals spoke about how funding was key to implementation. With the right funding in place, they expected that within three to six years we would see the results of integrated land use and transport planning on the ground.

#### **5.4.4 Kāinga Ora as a model for integration**

Our interview with Kāinga Ora highlighted some of the unique opportunities it has as both a government delivery agency and a large-scale developer working in multiple regions of Aotearoa New Zealand. These features give Kāinga Ora the opportunity to integrate land use and transport planning within its own developments, as well as the opportunity to prove concepts like TOD or density done well in tier 2 and 3 areas. In some cases, Kāinga Ora may even provide density that some regions need in order to support greater investment in public transport. One professional said:

*We are the bird in your hand, not the bird in the bush. And so it would be great if that just quite simple principle was understood. It's like you have a willing partner here that will respond to a transportation context in a positive way that helps you meet your objectives.*

In their interview, Kāinga Ora staff also described challenges they encountered in some district plans. In their unique role, Kāinga Ora, supported by the Ministry of Housing and Urban Development, has been able to encourage and educate these councils about ways to enable good housing outcomes in their plans, in a way that private developers are not able to. It is encouraging that these changes are taking place – they may pave the way for private developers to get improved land use and transport integration in their developments.

#### **5.4.5 One Network Framework**

The ONF was raised less frequently than some of the other opportunities but has been included due to the potential we see in its ability to support integrated land use and transport planning.

A professional at Waka Kotahi described the ONF and the potential she sees in it during our interview. Waka Kotahi intends to incorporate the ONF into the business case process for funding applications by local authorities to Waka Kotahi. This has immense potential for improving integration as it requires local authorities to consider the land use and transport contexts of a road/street when going through the business case process. The professional hopes that this will trigger the need for integration early in the business case process and lead to proposals with well-integrated land use and transport outcomes.

Waka Kotahi also intends to reference the ONF in NZ Standard 4404:2010, which sets out standards for land development and subdivision. With good enforcement, this should improve integration between land use and transport at the implementation stage when developers construct roads and streets in greenfield developments.

Overall, interviewees were positive about general government policy direction related to integrated planning and saw similar barriers and opportunities for better integration. They noted that:

- relationships are key to achieving integration at all levels of government
- silos between different agencies or planning departments reduce integration
- government structures, local government capacity, politics, funding and business-as-usual mindsets limit the potential for future integration.

Many of these are discussed in the next chapter.

## 6 Conclusions and recommendations

Land use and transport have always been linked. Well-integrated land use and transport planning improves peoples’ access to the things they need and want to live a good life. Traditional land use and transport planning has sought to do this by increasing mobility through car travel. This has led to unintended negative environmental, social, health and equity consequences. Increased auto-mobility has not necessarily led to better access. In fact, reliance on private vehicles has increased the distances that people must travel to reach common services and activities, reduced travel options (particularly for non-drivers), and exacerbated traffic congestion, which together have reduced overall accessibility for many people and locations.

This research looked at the barriers and opportunities for integrated land use and transport planning. We have defined this as land use and transport policy and practice that:

- considers the interconnected nature of the two and their effects on one another
- has a goal of improving housing supply, choice and affordability
- has a goal of decreasing reliance on private vehicles by reducing the need to travel and increasing the provision of and access to public transport, walking and cycling.

We have identified several crucial barriers to good integrated land use and transport planning outcomes (Table 6.1).

**Table 6.1 Barriers to integrated land use and transport planning in Aotearoa New Zealand**

Barrier	Description
Status quo bias	There is strong status quo bias, both built into legislation and planning processes, and in the approaches taken by the people actioning them. This tends to override strategic direction and best practice.
Tension between policy and legislated requirements	There is tension between some legislated requirements and national government policy. In particular, the LTMA maintenance activity classes and LGA performance measure reporting resulting in a ‘like for like’ replacement approach. Improvements cannot be made using maintenance activity classes.  This presents a missed opportunity for improving the integration of land use and transport during routine maintenance and renewals because these works cannot be leveraged to make strategic improvements with an efficient ‘dig once’ approach.  This undermines the potential success of more recent policies and plans like the GPS-LT, the GPS-HUD, Road to Zero, and Keeping Cities Moving, which rely on large parts of the existing street network being improved to provide higher levels of service for active modes and public transport.
Complexity of existing framework	Our land use and transport planning framework is complex. The LGA, RMA and LTMA each require the preparation of national government policy and several levels of local authority plans. These policies and plans are often prepared independently, and in the case of local authorities are subject to a significant level of discretion and political influence to cater for local community self-determination, so the various plans do not always integrate well.
Inconsistent quality of local government strategic planning	The extent and robustness of local government strategic transport planning is not mandated by legislation.
Uncoordinated national government policies and legislation	The tensions and lack of integration between different legislation and policies can lead to national government agencies working in an uncoordinated way. This then

	influences local authority planning, where inconsistent decisions are made depending on which legislative process is the focus behind the decision.
Capacity challenges at local government level	Capacity challenges at the local government level combined with broad discretion and frequent reforms mean the integration of land use planning and transport planning may not be a priority. Where it is a priority, councils may not have the right capabilities in-house. These challenges are exaggerated where local governments disagree with the direction set by central government.

In this section we offer a summary of the opportunities to overcome these barriers and work towards a more integrated land use and transport planning system and achieve better outcomes on the ground. The individual recommendations below do not relate to one specific barrier. Many of the recommendations will address more than one barrier. A consolidated list of all the recommendations is provided in Appendix C.

Some of these recommendations may be beyond the scope of Waka Kotahi alone. As discussed throughout this report, integrated land use and transport planning requires government agencies to work together in a coordinated way. By partnering with other government agencies, professional bodies and Local Government New Zealand, Waka Kotahi will contribute to better integration of land use planning and transport planning.

## 6.1 Develop a shared understanding of integrated land use and transport planning

Because of the complexity and number of linked decisions within the system, a shared understanding of what integrated land use and transport planning is, and how it can be achieved, is needed. Without this, there is potential for inconsistency in the understanding of integrated land use and transport planning by decision makers. This leads to decisions that are not aligned with the outcomes sought by the government’s policy direction. This applies regardless of whether the decision relates to a policy in a regional policy statement, or the design philosophy a transport planner applies in a detailed integrated transport assessment for a specific development project.

Recommendations
<ol style="list-style-type: none"> <li>1. All planning and design guidance and standards should be updated to reflect an agreed definition for integrated land use and transport planning.                             <ol style="list-style-type: none"> <li>a. At the national level, an agreed definition should be included in:                                     <ol style="list-style-type: none"> <li>i. the LGA and LTMA</li> <li>ii. all policies prepared under the LTMA, RMA and Urban Development Act, such as the NPS-UD, GPS-HUD and GPS-LT</li> <li>iii. national-level planning documents such as Road to Zero, Keeping Cities Moving, ONF, Arataki and the <i>Aotearoa Urban Street Planning and Design Guide</i></li> <li>iv. all future legislation and policies associated with resource management reforms.</li> </ol> </li> <li>b. Guidance and standards for local authorities that should be updated include:                                     <ol style="list-style-type: none"> <li>i. national planning standards</li> <li>ii. spatial planning guidance</li> <li>iii. strategic integrated land use and transport guidance</li> <li>iv. structure planning and master planning design guidance</li> <li>v. integrated transport assessment guidance</li> <li>vi. NPS implementation guidance</li> </ol> </li> </ol> </li> </ol>

vii. development contributions guidance.

## 6.2 Invest in pan-disciplinary education and professional development

Many of the recommendations within this report rely on practitioners and decision makers such as planners, engineers, urban designers, elected officials, and commissioners who work in the planning and delivery framework. All these people can influence either land use or transport system outcomes, so all play a role as system designers.

The interviews with planning professionals clearly showed that planning departments are already inundated with work. This means they may not have the capacity to devote the time necessary to achieve a broad paradigm shift within the system. To address this, we have included some recommendations that aim to upskill the existing planning and engineering workforce in the short to medium term and recommendations to train more transport planners in the longer term. We also note the need to support the education of elected members and other decision makers as well as the public to foster a better understanding of the benefits that can be realised by well-integrated land use and transport planning.

### Recommendations

2. Work with the New Zealand Planning Institute (NZPI), Engineering NZ and universities to include the integration of land use and transport in accredited planning and engineering degrees.
3. Work with professional bodies (such as NZPI and Engineering NZ) to provide continuing professional development programmes to upskill the existing workforce on the topic of integrated land use and transport planning.
  - a. This could include education about tools like soft space planning or TOD, and the limits of existing tools such as traffic models.
4. Change transportation planning practices from mobility-based to accessibility-based analysis. Improve evaluation tools so they are more comprehensive and can consider equity, affordability, safety and environmental quality, alongside explicit goals to reduce vehicle kilometres travelled.
5. Support the development of course content for undergraduate and postgraduate transport planning training programmes/degrees.
6. Develop resources for local authority planners to support them in educating elected members on aspects of integrated land use and transport planning.
7. Consider a national public information campaign to share the vision for transitioning to better urban environments, highlighting the co-benefits of good integrated planning, including emissions reduction, health, equity, and safety for transport system users.

## 6.3 Implement a more coordinated approach from national government

The national government policy stocktake showed that there is tension between the direction provided across different legislation and the policies prepared under them. There even seems to be tension within the GPS-LT, which on one hand provides good direction on integrated land use and transport planning, while on the other hand hinders efficient integration through the structure of the activity classes and associated Waka Kotahi funding processes.

A lack of coordinated and consistent direction was also identified as an issue in the interviews with planning professionals. The professionals working in local authorities said it was difficult to balance competing priorities coming out of national government policy. Professionals working in national government echoed this, saying there were sometimes challenges working with other agencies as people tend to focus on their agency's mandate rather than decisions that would provide the best outcome.

### Recommendations

8. Partner with other government agencies working in land use or transport planning to identify perceived conflicts in the agencies' mandates. Where these conflicts cannot be resolved between the agencies:
  - a. this could be escalated to national government for a legislation change
  - b. guidance could be provided to local authorities on how to manage these conflicts in implementation.
9. Update the GPS-LT maintenance activity classes to focus on incrementally upgrading streets to provide higher levels of safety and amenity for active mode users at the time renewals are undertaken. A streamlined business case approach/justification for funding should be enabled for street renewals that align with the government policy direction to support integration.
10. Complete and roll out the ONF and the *Aotearoa Urban Street Planning and Design Guide* and provide complementary engineering design standards and codes of practice to replace any out-of-date engineering guidance and codes local authorities may still be using.
11. Develop a National Environmental Standard on Transport System Design to support the implementation of minimum safety and amenity standards for active mode users within new or renewed urban street environments. This should be done in collaboration with the Ministry for the Environment, the Ministry of Transport, the Ministry of Housing and Urban Development, and local authorities.

In addition, the recommendations set out in section 6.1 will further support a more coordinated approach from national government.

## 6.4 Improve monitoring, evaluation, and accountability

The policy stocktake and interviews showed that in Aotearoa New Zealand, limited or lacking monitoring, evaluation and accountability processes hinder implementation of integrated land use and transport planning. This was confirmed by the literature review, which found locations without strong monitoring and evaluation struggled to manage unintended consequences of non-integrated planning, such as inadequate parking management.

To improve accountability within the system, monitoring and evaluation of outcomes should be built into planning processes under all legislation, and at all levels of government. Here we provide some recommendations for how this could be achieved.

### Recommendations

12. Integrate monitoring and evaluation requirements for integrated land use and transport planning into government funding. If a funding recipient does not meet monitoring and evaluation requirements, this should be considered when that local authority next applies for funding.
13. Add a performance monitoring rule to the LGA to encourage local authorities to align their level of service standards with and support implementation of the ONF and the *Aotearoa Urban Street Planning and Design Guide*.



## 6.5 Support integrating relationships

Relationships between different agencies and departments were discussed a lot during the interviews. The presence of strong relationships mandated by legislation (eg, Kāinga Ora partnerships) facilitates the integration of land use planning and transport planning, even when other barriers to integration exist. In contrast, a lack of relationships can hinder integration at all levels of government.

### Recommendations

14. Facilitate relationships between Waka Kotahi and other organisations (such as Kāinga Ora or the Ministry for the Environment) through secondments of staff.
15. Support formal integrated relationships with local authorities through funding – for example, providing funding for road-controlling local authorities and council land use planners to develop mixed-used TOD strategies/policies.

## 6.6 Leverage opportunities of resource management and local authority reform

Upcoming resource management and local authority reform provides opportunities to reduce complexity and integrate land use and transport in our new planning system.

During resource management reform, particular focus should be given to spatial planning due to its critical role in integrated land use and transport planning. The resource management reforms will establish legislated requirements for spatial planning. However, to support spatial planning being done well, this needs to be driven by good principles and underpinned by a strong transport strategy that will deliver the integration sought by the government policy. Clear national direction on how to do this should accompany the Spatial Planning Act when it comes into legal effect.

Potential local authority reform provides the opportunity to reduce complexity in the system. The policy stocktake suggested that the number of government tiers a district/city is subject to influences how well integrated land use and transport planning occurs in that territory. Auckland, a unitary authority, displayed better vertical integration of land use and transport planning policy than Hamilton, a city council with an accompanying regional council. Hamilton displayed better horizontal integration between its land use and transport functions than Auckland, where those functions are split between Auckland Council and Auckland Transport. These factors should be considered if unitary authorities are proposed for all of Aotearoa New Zealand.

### Recommendations

16. Ensure resource management reforms result in strong spatial planning processes with complementary legislative requirements that integrate key parameters such as land use development density, mixed use, public transport prioritisation, and prioritising the safety and amenity of active mode users – for example, requirements to enable development density like the NPS-UD, and legislating the key parameters from the ONF and the *Aotearoa Urban Street Planning and Design Guide*.
17. Develop an alternative set of engineering standards for road and street design that can replace the current engineering design codes relied on by local authorities – for example, a revised New Zealand Standard for subdivision and land development (NZS 4404:2010), and the relevant codes of practice from the Auckland Design Manual. Ensure national direction on best practice spatial planning is released when the new legislation comes into effect.



18. Consider consolidating local authority into a single tier (unitary councils), as has been done in Auckland.
19. If unitary councils become widespread, both strategic and tactical transport planning functions should be held within the councils rather than some of those functions being delegated to a separate organisation, to avoid the horizontal integration barriers observed in the case of Auckland Council and Auckland Transport.

## 6.7 Review the Local Government Act performance measures

Outside of local authority reform, there are opportunities to improve the current LGA performance measures to improve integration between land use planning and transport planning at the local authority level.

The local authority planning and reporting process related to LGA performance measures for roads and footpaths can hinder integration of land use planning and transport planning by focusing on mobility and level of service for cars.

There are also missed opportunities within the LGA, particularly the fact that preparation and implementation of a specific transport strategy is not a requirement for territorial authorities. The lack of a good strategy can be a barrier to effective integrated land use and transport planning by allowing planning activities to revert to being based on a business-as-usual approach rather than the mindset change that is needed. An example of this is local authorities not having a parking policy (a component of a transport strategy), resulting in parking activities inadvertently undermining efforts to improve public transport or active mode uptake.

### Recommendations

20. Review the LGA roading and footpaths performance measures and GPS-LT maintenance activity classes to reflect an integrated land use and transport planning approach with a focus on accessibility by all modes and reducing vehicle kilometres travelled. Detailed business cases should not be required for street upgrades undertaken at the time of street renewals that align with government policy to improve land use and transport integration. This may require a change of Treasury definitions of renewals vs improvements, and additional outcomes-based performance measures such as 'transport mode split' or 'vehicle kilometres travelled'.
21. Update the LGA (eg, section 93) to require local authorities to prepare and implement a strategic integrated transport strategy to complement their land use planning and regulation activities.

## 6.8 Conduct further research

Through the literature review and interviews with planning professionals and the steering group, we learned of the following topics that could be researched further:

- other countries where integration of land use planning and transport planning has been successful, but little literature is available
- projects in Aotearoa New Zealand that anecdotal evidence suggests were successful in integration
- research gaps, particularly relating to:
  - equity impacts for Indigenous groups and other historically marginalised communities
  - funding models that support integration
  - governance structures
  - how integration occurs in contexts experiencing population decline.

The scope of this report meant we largely relied on studies conducted by other people into integrated land use and transport planning for our overseas information. A full policy stocktake of promising legislative and planning systems in a specific country would allow for a much deeper understanding of how that country's government structure, policies and implementation methods work together to achieve such good integration. Detailed interviews with members of domestic project teams would also highlight how their success could be replicated.

### Recommendations

22. Conduct a full policy stocktake of some international locations for a deeper understanding of how integrated land use and transport planning is achieved overseas. Potential study locations identified in the interviews and literature review include:
  - a. Sweden
  - b. Oregon, USA
  - c. Australia
23. Develop better tools for evaluating the full impacts of transportation and land use planning decisions, including integrated spatial models.
24. Investigate examples of small towns or areas experiencing population decline that have had success in integrating land use planning and transport planning. This will be useful in understanding how integration could work in similar contexts in Aotearoa New Zealand.
25. Conduct case study investigations of projects that have worked well in Aotearoa New Zealand. This could involve interviews with planners involved and a stocktake of policies and plans influencing the project. Potential contexts include:
  - a. Future Proof planning context in the Waikato
  - b. Kāinga Ora partnerships with local councils.
26. Investigate the potential impacts and opportunities of integrated planning for Māori. This could include specific equity impacts, or opportunities to partner with Māori throughout integrated planning processes.
27. Further investigate funding models used overseas to promote integrated planning.

Together, these recommendations cover a multidimensional approach to improving integrated land use and transport planning in Aotearoa New Zealand. The recommendations target a number of crucial barriers by focusing on:

- improving practitioner and public understanding of integration
- developing a shared understanding of integration
- coordinating national government's approach
- improving monitoring, evaluation and accountability
- supporting integration with relationships
- making the most of resource management and local government reforms
- updating the LGA
- learning from other countries.

By working collaboratively with other government agencies and local government, Waka Kotahi has the opportunity to improve integration between land use planning and transport planning. This will ultimately lead to improved outcomes for New Zealanders in the form of environmental, social, health and equity benefits.

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## Appendix A: Summaries of national-level documents

This section provides detailed summaries of the key national-level documents that influence the integration of land use planning and transport planning.

### A.1 National legislative framework

#### A.1.1 Resource Management Act 1991

The Resource Management Act (RMA) establishes the framework for planning the use and development of Aotearoa New Zealand's land, water and air resources (New Zealand Government, 1991). It legislates for national-level direction such as national policy statements and national standards, and regional- and district-level resource management plans such as regional policy statements, regional plans, and district plans. It also establishes the resource consent regulatory processes and outlines the processes for plan changes.

The purpose of the RMA is to promote the sustainable management of natural and physical resources.

**Sustainable management** is defined in the RMA as:

*managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—*

- (a) *sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) *safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) *avoiding, remedying, or mitigating any adverse effects of activities on the environment.* (New Zealand Government, 1991, s 5(2))

The Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 was introduced to enable higher-density housing to be developed in New Zealand's largest urban areas, requiring councils in these areas to adopt medium-density residential standards (New Zealand Government, 2021). The government expects this requirement will help increase housing supply and enable more types of housing to be developed in broader areas of the towns and cities. Effectively, the changes will enable people to build up to three units and three storeys on most sites in Auckland and greater Hamilton, Tauranga, Wellington, and Christchurch without the need for a land use resource consent.

#### A.1.2 Local Government Act 2002

The Local Government Act (LGA) provides for democratic and effective local authority that recognises the diversity of New Zealand communities (New Zealand Government, 2002). The purpose of local authorities is to enable democratic local decision-making and action by communities, and to promote the social, economic, environmental, and cultural wellbeing of communities in the present and for the future.

Local authorities manage the local road network, plan and provide public transport services, plan and regulate land use activities within their jurisdiction, and typically are the building control authority for their jurisdiction. This means that the local authority organisations established under the LGA play a pivotal role in land use and transport planning, and in turn have a significant influence on how well land use planning and transport planning are integrated within their jurisdiction.

The LGA does not require local authorities to undertake integrated land use and transport planning, nor does it set or require any level of service standards for services the organisations provide, such as parks, libraries or roads. Although, section 17A requires, at least every six years, local authorities to review the cost-

effectiveness of their arrangements for meeting the needs of the communities within their districts or regions for good-quality local infrastructure, local public services, and performance of regulatory functions. If there is a significant change to relevant service levels, the review must happen in conjunction with the consideration of the change section 17A(2)(a).

Accountability mechanisms are built into the LGA. Section 80 requires local authorities to identify decisions that are inconsistent with any policy adopted by the local authority, or any plan required by the LGA or any other legislation (eg, the RMA or LTMA). This requirement only applies to formally adopted policies and legislated plans such as the long-term plan, regional policy statement, RLTP, and district plan. Along with the requirement to identify inconsistent decisions, section 79 provides local authorities with discretion to make judgements about the significance of a decision in terms of the extent of options considered, the depth of cost-benefit analysis, the amount of detail needed, and the extent of any written record.

Section 261B(1) of the Local Government Act requires the Secretary of Local Government to make rules specifying performance measures for specific groups of activities. Performance measures are intended to enable the public to compare the level of service provided for each group of activities by different local authorities. The activity groups are water supply, sewerage and the treatment and disposal of sewage, stormwater drainage, flood protection and control works, and the provision of roads and footpaths.

Before making rules that would change the existing performance measures, the Secretary must consider the suitability of the existing measures and whether the new measure:

- (i) measures the level of service for a major aspect of the group of activities; and*
  - (ii) addresses an aspect of the service that is of widespread interest in the communities to which a service in relation to the group of activities is provided; and*
  - (iii) contributes to the effective and efficient management of the group of activities.*
- (section 261B(2))*

### **A.1.3 Land Transport Management Act 2003**

The Land Transport Management Act (LTMA) establishes Waka Kotahi and the National Land Transport Fund (New Zealand Government, 2003). It also requires the preparation of the GPS-LT referred to in section 4.1 of this report. The LTMA also requires a regional transport committee to be appointed for each region, which includes people from the regional council and each territorial authority in the region and Waka Kotahi, or in the case of unitary authorities, people from the unitary authority and Waka Kotahi.

The LTMA also requires the regional transport committee prepares an RLTP every six years, which is consistent with the GPS-LT. Regarding the contents of RLTPs, the LTMA specifies that for the purpose of seeking payment from the national land transport fund, an RLTP must contain activities proposed relating to local road maintenance, local road renewals, local road minor capital works, and existing public transport services. The RLTP can also include other proposed activities if the regional transport committee decides to include them, as well as activities relating to state highways, and other activities Waka Kotahi may propose for a region (New Zealand Government, 2003).

The LTMA provides for the planning and regulation of public transport services, including specifying the formalities around adopting a regional public transport plan (RPTP), specifying the principles that apply to public transport planning and regulation, and outlining the purpose and content of RPTPs. The provisions also specify the matters to take into account when adopting an RPTP, which include any relevant regional policy statement, regional plan, district plan, or proposed regional plan or district plan.

#### A.1.4 Building Act 2004

The Building Act ensures that buildings meet a minimum standard of safety and functionality, and provide for the wellbeing of people who use the buildings (New Zealand Government, 2004). It does this through regulating building work, providing for accountability of owners, designers, builders, and building consent authorities. The Building Act also sets performance standards to ensure health, safety, accessibility and sustainable development.

All building typologies are covered by the Building Act. It is the primary piece of legislation that will ensure new buildings, when considered within their immediate environment, contribute to the outcomes envisaged by the GPS-HUD by being designed so that occupants and users experience healthy built environments that provide for their wellbeing.

The Building Act also legislates the role of territorial authorities as building consent authorities. In relation to the GPS-HUD, the Building Act is a significant factor in determining the cost of housing.

#### A.1.5 Kāinga Ora Homes and Communities Act 2019

The Kāinga Ora Homes and Communities Act (KOHC Act) establishes Kāinga Ora–Homes and Communities (Kāinga Ora) and provides for the creation of the GPS-HUD (New Zealand Government, 2019a). It also legislates Kāinga Ora functions, which include initiating, facilitating and undertaking urban development.

The KOHC Act includes objectives for Kāinga Ora. Kāinga Ora must contribute to sustainable, inclusive and thriving communities that:

- (a) *provide people with good quality, affordable housing choices that meet diverse needs; and*
- (b) *support good access to jobs, amenities, and services; and*
- (c) *otherwise sustain or enhance the overall economic, social, environmental, and cultural wellbeing of current and future generations.* (New Zealand Government, 2019a, s 12(1))

The KOHC Act also outlines operating principles that apply to Kāinga Ora, which include principles around providing good quality housing in a mix of typologies that is well connected to peoples' communities. Kāinga Ora must also ensure urban development includes quality infrastructure and amenities, and develop thriving, cohesive and safe places to live. Its principles require partnering and engaging meaningfully with other persons and organisations and helping to grow capability across the housing and urban development sector in general (New Zealand Government, 2019a).

#### A.1.6 Urban Development Act 2020

The Urban Development Act relates to the KOHC Act and enables national government, via Kāinga Ora, to initiate, facilitate or undertake urban development projects. Its purpose is to 'facilitate urban development that contributes to sustainable, inclusive, and thriving communities' (New Zealand Government, 2020b, s 3(1)). To achieve this, the Urban Development Act enables a streamlined planning process for Kāinga Ora developments and gives Kāinga Ora special powers to acquire and develop land.

The Urban Development Act establishes three categories of urban development project:

- urban development
- urban development projects
- specified development projects.

Kāinga Ora has different powers and functions, depending on the category of urban development. Specified development projects are urban development projects that involve Kāinga Ora preparing a development plan

for the area in accordance with the Urban Development Act, and the territorial authority's consenting functions potentially being transferred to Kāinga Ora. In the case of a specified development project, the Urban Development Act lists principles that apply, including having regard to providing or enabling:

- (i) *integrated and effective use of land and buildings; and*
- (ii) *quality infrastructure and amenities that support community needs; and*
- (iii) *efficient, effective, and safe transport systems; and*
- (iv) *access to open space for public use and enjoyment; and*
- (v) *low-emission urban environments* (New Zealand Government, 2020b, s 5(1))

The principles also include promoting the sustainable management of natural and physical resources to align with the RMA, and they specifically include recognition that amenity values may change.

## A.2 National-level plans, strategies and guidance

To support the GPS-LT and GPS-HUD, the government has produced several plans and strategies relevant to integrating land use and transport. These are discussed in this section.

### A.2.1 Road to Zero 2020–2030

Road to Zero (New Zealand Government, 2019b) is the government's road safety strategy prepared by the Ministry of Transport. Its vision is:

*A New Zealand where no one is killed or seriously injured in road crashes. This means that no death or serious injury while travelling on our roads is acceptable.* (New Zealand Government, 2019b, p. 6)

Seven principles are outlined in Road to Zero:

1. *We promote good choices but plan for mistakes*
2. *We design for human vulnerability*
3. *We strengthen all parts of the road transport system*
4. *We have a shared responsibility for improving road safety*
5. *Our actions are grounded in evidence and evaluated*
6. *Our road safety actions support health, wellbeing and liveable places*
7. *We make safety a critical decision-making priority* (New Zealand Government, 2019b, p. 7)

As part of designing for human vulnerability, the strategy highlights that the chances of a pedestrian or cyclist surviving or avoiding serious injury in a crash involving a motor vehicle decreases rapidly when the motor vehicle is travelling above 30–40 km/h, and directs that 'in designing our road system, we must acknowledge the limits of our capabilities and plan for human error, so that the impact of a collision does not cause fatal or serious injuries'. (New Zealand Government, 2019b, p. 31)

A target of a 40% reduction in deaths and serious injuries by 2030 is outlined in Road to Zero, and this is to be achieved by action in several areas. These include infrastructure improvements and speed management, work-related road safety, road user choices, and system management. As part of the infrastructure improvements and speed management focus area, Road to Zero outlines that in New Zealand's towns and cities we cannot continue to provide inadequate infrastructure for vulnerable road users that contributes to unsurvivable crashes in the transport system. It also outlines that there is strong support for addressing the



areas where safe infrastructure and safe speeds can help to promote active, liveable communities. The strategy identifies the need to:

- embed the road safety principles into infrastructure planning and design
- better integrate transport with urban and land use planning to deliberately shape how the road network is used and what infrastructure investments are required
- make sure that our roads and streets are safe as people increasingly choose to get around by public transport, active modes and emerging mobility devices.

The system management focus area of the strategy outlines that its success relies on strong partnerships, sound governance, communities working together, information sharing, and implementing collaborative approaches to road safety. It recognises that the transport system is complex, and that

*It is vital to embed Safe System thinking across all those working in road safety, and to ensure accountability and alignment of relevant decision-making and investment processes. (New Zealand Government, 2019b, p. 57)*

## A.2.2 Keeping Cities Moving

Keeping Cities Moving is the Waka Kotahi plan to improve travel choice and reduce car dependency. The plan explains why mode shift is important, and that Waka Kotahi will play a more pro-active role in achieving mode shift objectives than it traditionally has done, stating that:

*Mode shift can be a powerful cross-cutting approach to create more vibrant and liveable cities, by achieving a broad range of outcomes that will improve quality of life. (Waka Kotahi, 2019, p. 8)*

The benefits of mode shift are explained in the plan, and mode shift is identified as contributing to five desired outcomes:

- enhanced access
- greater economic prosperity
- reduced environmental impact
- a safer transport system
- improved public health.

The plan also includes five key principles, including ‘targeting the cause of car dependency’, ‘concentrate on high-growth urban areas’ and ‘focusing on the most effective modes’, which include public transport, walking and cycling. Waka Kotahi will take an integrated approach across three key areas it can influence to address the causes of car dependency:

- shaping urban form
- making shared and active modes more attractive
- influencing travel demand and transport choices.

The plan also states that Waka Kotahi will work with others in areas where it has less influence.

The plan includes an Action Focus section that states the levers Waka Kotahi will use to achieve mode shift, which include spatial planning; network design, management and optimisation; investment in infrastructure and services; and education, engagement and awareness. These levers are intended to be used, amongst other things to:

- work with Waka Kotahi partners to shape spatial, transport, land use and district plans that will maximise mode shift and ensure urban growth and transport investment are aligned



- complete the Good Practice Guide to set out best practice guidance for healthy street design and efficient TODs
- evolve the One Network Road Classification to a One Network Framework to reflect wider transport outcomes and ensure all modes and placemaking are considered in street design
- ensure investment policies and processes support mode shift and that assessment and prioritisation includes measures of broader environmental and social benefits
- partner to design and deliver nationally significant multi-modal networks, incorporating public transport, rapid transit and major walking and cycling connections
- research, co-design and trial new programmes and methods to increase awareness of travel choices and manage travel demand, including how to best align these with new investment.

The Keeping Cities Moving plan signals a change in practice for Waka Kotahi, including refocusing investment and delivery priorities.

### **A.2.3 Waka Kotahi One Network Road Classification and One Network Framework**

The One Network Road Classification (ONRC) is a classification system for all New Zealand's roads.

The Waka Kotahi website describes the ONRC as:

*the primary tool developed through REG<sup>1</sup> to enable operational and culture change in road activity management. It facilitates a customer-focused, business case approach to budget bids for the National Land Transport Programme. (Waka Kotahi, 2022a)*

The result sought from the ONRC was that:

*New Zealanders will get the right level of road infrastructure where it is needed, determined by a robust, impartial, nationally consistent tool. (Waka Kotahi, 2022a)*

Waka Kotahi (2022a) explains that the ONRC is currently being enhanced to better include people that are walking, riding a bike or taking public transport. The enhanced version is referred to as the One Network Framework (ONF). The reason for the enhancement is outlined as:

*the recognition that shared, integrated planning approaches between transport and land use planners will result in better outcomes. 'Systems thinking' allows us to link strategies and policies together and support more holistic decision-making that in turn improves the liveability of places. (Waka Kotahi, 2022b)*

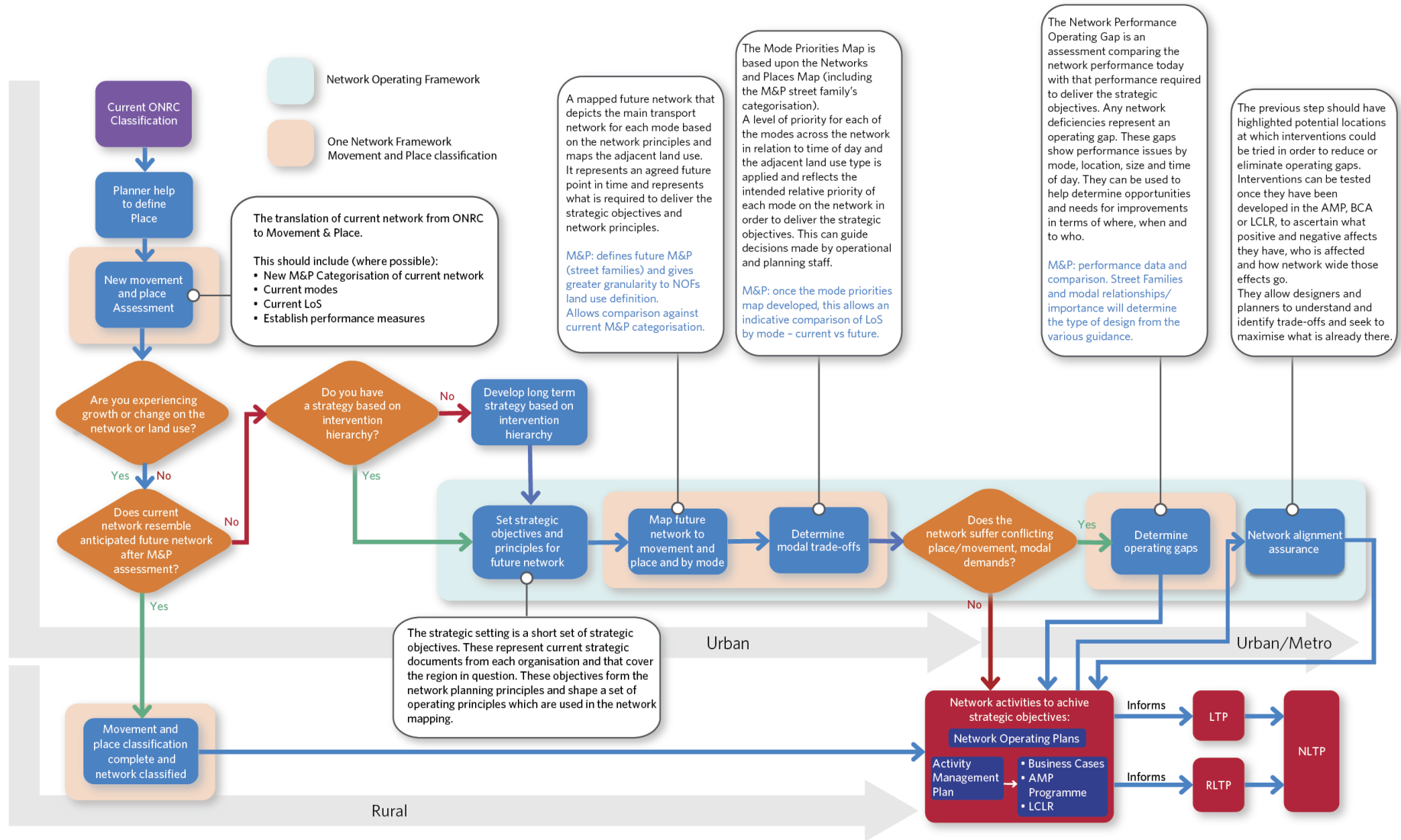
The change from the ONRC to the ONF reflects the mindset change imbedded in the government policy direction and is the expression of this in the planning and design philosophy of the transport system.

Waka Kotahi anticipates the ONF will be incorporated into other frameworks, including road controlling authority network operating frameworks and the Waka Kotahi Investment Decision-Making Framework. Aspects of this involve the ONF providing a common language for the business case approach, encouraging road controlling authorities to reference the ONF in their activity management plans, the ONF informing speed management guidance for New Zealand roads, and working with practitioners, especially in the area of level-of-service outcomes for pedestrians in urban areas (Waka Kotahi, 2022c). The following process diagram (Figure A.1) shows how Waka Kotahi envisages the ONF integration with other networks.

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<sup>1</sup> The Road Efficiency Group Programme – a collaborative initiative between the Waka Kotahi, Local Government New Zealand and the Road Controlling Authorities of New Zealand.

Figure A.1 One Network Framework – Waka Kotahi envisaged integration with other networks (reprinted from Waka Kotahi, 2022c)



## A.2.4 Arataki<sup>2</sup>

Arataki presents the Waka Kotahi 10-year view of what is needed to deliver on the government's current priorities and long-term outcomes for the land transport system. Waka Kotahi outlines that it shares the evidence base that informs its view, and it helps it (and others) to better understand how its joint decisions and choices will shape the future land transport system.

It identifies five step changes that are needed above base level-of-service maintenance:

- improve urban form
- transform urban mobility
- significantly reduce harms
- tackle climate change
- support regional development.

The document is presented at three different scales – a National Summary, Pan-regional Summaries, and Regional Summaries.

## A.2.5 Aotearoa Urban Street Planning and Design Guide

The *Aotearoa Urban Street Planning and Design Guide* (final draft, September 2021), prepared by Waka Kotahi, is intended to operationalise the national policy direction and Waka Kotahi policy, strategies and plans. This would include operationalising the street classification system of the ONF. The guide is also intended to:

- align with the work by local authorities in street planning and design
- present the Waka Kotahi street planning and design objectives, methods and requirements
- create a common language for street planning and design
- recognise movement and place function
- use streets to support equitable outcomes for all, including vulnerable users
- improve understanding of what quality street design means for the land transport system
- demonstrate how an urban street language can contribute to higher quality and more integrated urban form to create more sustainable and resilient urban places.

The guide outlines that in the urban space, the street guide connects the concepts of movement function, place function and multimodal networks with urban design processes, and promotes a balanced approach to street planning and design, focusing on:

- safety for all road users and reducing harm overall
- urban mobility and developing a multi-modal transport system
- improved urban development, urban form, and good urban access
- the provision of integrated land use and transport, and places for people that fit the context
- environmental and sustainability outcomes such as human health, reduced emissions and connectivity
- methods for movement network and place-based development that are tactical, staged and provide pathways to permanence

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<sup>2</sup> Refer to: <https://www.nzta.govt.nz/planning-and-investment/planning/30-year-plan/arataki/arataki-version-2/>

- integrated planning and an intervention hierarchy that highlights ways to develop existing networks to drive optimisation and performance
- partnerships in developing the above (including with iwi)
- collaboration, and also engaging with stakeholders and the local community.

The *Aotearoa Urban Street Planning and Design Guide* provides design principles, advice on planning and process matters, and guidance on the planning and design process, effectively embodying the design philosophy change included in the government policy directives. For local authorities who are making funding applications to Waka Kotahi, the guide also provides advice on incorporating the street design improvements and multi-modal network development promoted by both the guide and the ONF in a Business Case Approach.<sup>3</sup>

The *Aotearoa Urban Street Planning and Design Guide* uses four 'urban contexts' to summarise the variety of urban conditions in different towns, cities and neighbourhoods and provides detailed design guidance around these contexts. Significantly, the guide highlights that reduced vehicle speeds are a core quality of the type of streets that are needed to support high-quality urban areas and urban transformation, with 30 km/h being the speed profile specified for street environments in circumstances where different modes will mix (eg, city and town centres, local residential streets) and separation of modes where speed profiles are higher and the street has a higher movement function, or where there are high vehicle traffic volumes.

The *Aotearoa Urban Street Planning and Design Guide* highlights the critical role the road and street environment play in enabling the urban development outcomes that integrated land use and transport planning is seeking to achieve, and it highlights the need to both design streets differently in greenfield development areas and change the physical design of the existing road and street networks to unlock opportunities to intensify existing urban areas.

## A.3 Resource Management System Review – the Randerson Report

*New Directions for Resource Management in New Zealand* (Randerson et al., 2020) is a comprehensive review of New Zealand's resource management system and was seen by the government as 'an opportunity to design a new system for resource management that delivers better outcomes for our environment, society, economy, and culture' (Ministry for the Environment, 2022).

The drivers for the review were:

- Aotearoa New Zealand's natural environment is under significant pressure from unsustainable development
- urban areas are struggling to keep pace with population growth – poorly managed urban growth, unaffordable housing, worsening traffic congestion, greater pollution, and reduced productivity
- an urgent need to reduce carbon emissions and adapt to climate change – adapting to change and avoiding greenhouse gas emissions
- the need to ensure that Māori have an effective role in the system, consistent with the principles of Te Tiriti o Waitangi

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<sup>3</sup> Waka Kotahi and its investment partners (local authorities) use the Business Case Approach to guide planning, investment and project development processes. Refer to: <https://www.nzta.govt.nz/planning-and-investment/learning-and-resources/business-case-approach-guidance/>

- the need to improve system efficiency and effectiveness – complexity, cost and delay, uncertainty, and lack of responsiveness to changing circumstances and demands under the RMA processes.

One of the criticisms of the RMA is outlined in the report as being the focus in the legislation on managing the adverse effects of activities on the environment rather than promoting more positive outcomes. This criticism is relevant to integrated land use and transport planning and the barriers to better integration the current legislative environment poses. In this regard, the report recommends changing the purpose of the legislation from the current purpose of the RMA to ‘enhancing the quality of the environment to support the wellbeing of present and future generations’ and achieving the purpose by promoting positive outcomes for both the natural and built environments (Randerson et al., 2020, p. 463).

The report recommends the RMA be replaced with new legislation that includes a Natural and Built Environments Act and a separate Strategic Planning Act. The Natural and Built Environments Act would take a different approach than the RMA, to address the criticisms of the RMA approach, and the Strategic Planning Act would have the purpose of setting long-term strategic goals and facilitating the integration of legislative functions across the resource management system.

The report specifically addresses the criticism of the RMA that it lacks provisions for effectively managing urban growth, and it recommends specific outcomes for the built environment – including the availability of development capacity for housing and business purposes to meet expected demands, and the strategic integration of infrastructure with land use – be included in the legislation. The report expects that these outcomes would be supported using national policy statements like those currently in use under the RMA, and by the strategic planning processes mandated by the Strategic Planning Act. The report also expects that regional spatial strategies would identify areas suitable for urban growth (as well as areas not suitable for development) and would also facilitate the provision of infrastructure necessary to support growth, acknowledging that effective ways to achieve land use and infrastructure integration have been a missing element of the resource management system to date.

The report’s recommendations are currently being implemented, and it is expected that the replacement legislation, especially the Spatial Planning Act, will increase the proportion of planning resources being applied at the strategic (integration) end of the planning process to reduce the planning resources needed at the regulatory end of the process. Because the spatial planning requirement is intended to improve integration across the resource management system – including improvements to land use and transport integration – it will affect some of the barriers to integration that have been identified in this research.

## Appendix B: Local government policy stocktake full analysis

This appendix sets out the findings of our stocktake of local government policy. We provide ratings using a colour code system. Green is used where there are strong indicators for good integration, orange is used where there are average indicators, and red is used where the indicators are weak or missing. The cells include some examples of key text or the headings from key sections from the policy documents that contributed to our assessment of the quality of integration under that indicator, as well as some general commentary.

**Table B.1 Regional stocktake – Auckland**

Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Commentary
Auckland Plan 2050 (long-term spatial plan) Overall rating – 8/10	Explanation following Direction 2 under the outcome Transport and Access: 'People-oriented streets are fundamental to the quality of experiences people have in our urban areas. We must therefore also transform how we design the transport network, so it's about people and places, not just moving vehicles.'	Direction 1 under the outcome Homes and Places: 'Develop a quality compact urban form to accommodate Auckland's growth'.	Explanation following Direction 1 under the outcome Homes and Places: 'Allows opportunities for more intensive living and working environments, and for more housing to be built around areas of activity and close to good transport options'	Compact urban form should improve access, but the transport section is focused more on mobility and improving efficiency of movement. For example: Direction 1 under the outcome Transport and Access: 'Better connect people, places, goods and services' And in the explanation that follows: 'Improving access depends on the entire transport system being managed and developed as an integrated whole...'	Plan refers to ATAP for this.	Focus area 1 under the outcome Homes and Places: 'Accelerate quality development at scale that improves housing choices'. Focus area 5 under the outcome Homes and Places: 'Create urban places for the future'.	Generally well-integrated plan but could improve the clarity around mobility versus access, and density providing greater access.  There could also be more clarity on 'people-oriented streets' and the issue behind that, and what is needed in practice to address the issue and achieve the outcomes – that is, less ambiguity would help lower-order planning processes interpret and implement the changes that are needed on the ground.
Regional Policy Statement (Chapter B of the Auckland Unitary Plan) Overall rating – 7/10	B2.3. A quality built environment/B2.3.2. Policies: '(2) Encourage subdivision, use and development to be designed to promote the health, safety and wellbeing of people and communities by all of the following: (a) providing access for people of all ages and abilities; (b) enabling walking, cycling and public transport and minimising vehicle movements...' And the policy statement refers to the Auckland Transport plans to implement these policies under section B2.9.	B2.2.1. Objectives: '(1) A quality compact urban form that enables all of the following: (a) a higher quality urban environment ... (c) better use of existing infrastructure and efficient provision of new infrastructure; (d) improved and more effective public transport...' See also the residential growth objectives in section B2.4 that address density close to centres.	B2.5.2(2). Policies: '... (e) a character and form that supports the role of centres as focal points for communities and compact mixed-use environments... (h) development does not compromise the ability for mixed-use developments, or commercial activities to locate and expand within centres.' The Structure Plan Guidelines in Appendix 1 for Greenfield development includes mixed use and maximising access.	B2.2.2. Policies: '(5) Enable higher residential intensification: (a) in and around centres; (b) along identified corridors; and (c) close to public transport, social facilities (including open space) and employment opportunities.' The Structure Plan Guidelines in Appendix 1 for Greenfield development includes mixed use and maximising access.	Policy Statement relies on the Auckland Transport plans and strategies.	B2.2.1. Objectives: '(1) A quality compact urban form that enables all of the following: (a) a higher quality urban environment...' See also the objective and policies under B2.3: A quality built environment	The provisions are aimed at integrating land use planning and transport planning but are somewhat open to interpretation due to the higher-level policy position. This means a lot of responsibility falls on the Auckland Plan and Auckland Transport plans and strategies to fill in the details of, for example, how to 'enable walking, cycling and public transport and minimising vehicle movements'.  If the policy was informed by a better understanding of the necessary parameters for integrated land use and transport planning, then it could provide stronger direction in this area. However, the limitations of the RMA as identified in the Randerson Report apply to the Regional Policy Statement.
Auckland Regional Land Transport Plan 2021–2031 Overall rating – 2/10	The plan does not indicate there is an understanding of Vision Zero fundamentals – the relationship between street design, vehicle speeds, safety, active mode amenity, and mode shift. Existing streets will generally be renewed to their current standard, with only special projects involving upgrades (eg, connected communities).	No real strategy around density and providing the street networks required to enable quality urban environments – focus is on big corridors rather than local streets.	All about moving people around existing main 'corridors' or the separated cycle network.	All about mobility rather than access – moving people around existing main 'corridors' or the separated cycle network. For example, under Access and connectivity (p. 65) – 'Making best use of existing corridors will be achieved by projects that encourage greater use of buses and walking and cycling. Initiatives like Connected Communities, which will improve safety, productivity and carrying capacity on a number of existing urban corridors...'	Focuses on road pricing and emerging technologies rather than travel plans or parking fees etc.	The plan mentions the quality compact urban form objective of the Auckland Plan, but does not make the connection between the local street environment and achieving this outcome.	Interesting quote (p. 65): 'In keeping with modern worldwide approaches to transport planning, most of these corridors, especially within the urban area, are multi-modal projects delivering upgrades to public transport, cycling and safety along with general traffic.'  It is interesting that the plan refers to modern worldwide approaches to transport planning rather than Auckland's transport planning such as ATAP, the Roads and Streets Framework Strategy etc – seems like a disconnect between strategy and tactical planning.



Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Commentary
							<p>The plan assumes improvements can be made to the level of service for all modes in the existing corridors, which is difficult to reconcile if the level of service for cars and the level of service for active modes are opposed in existing space-constrained corridors.</p> <p>It is not clear how the plan is related to creating the quality compact urban form and seems generally inconsistent with the strategic approach developed under the ATAP – seems highly focused on mobility but not concerned with place.</p> <p>Because of Auckland Transport’s organisational separation from Auckland Council, they may tend to be more focused on facilitating mobility rather than placemaking, facilitating access, and addressing climate change issues.</p>
<p>Auckland Transport Alignment Programme (cross-agency strategic approach to transport) (ATAP)</p> <p>Overall rating – 9/10</p> <p>ATAP Recommended Strategic Approach (September 2016)</p> <p>Mode Shift Plan – Better Travel Choices (December 2019)</p> <p>Roads and Streets Framework (V2 May 2020)</p> <p>Vision Zero for Tāmaki Makaurau: A Transport Safety Strategy and Action Plan to 2030</p>	<p>Incorporates fundamental mindset change in street design – street design to achieve safe speed profiles.</p> <p>Movement and Place spectrum included to ensure appropriate street design given surrounding land uses.</p> <p>Specific Vision Zero integration into the Roads and Streets Framework.</p>	<p>Quality compact urban form.</p> <p>Strategic approach is based on Keeping Cities Moving.</p>	<p>Strategic approach is based on Keeping Cities Moving</p>	<p>‘Encouraging good quality, compact, mixed-use urban development will result in densities that can support rapid/frequent transit (and vice versa), shorter trips between home and work/education/leisure, and safe, healthy and attractive urban environments to encourage more walking and cycling.’</p> <p>Refer to Better Travel Choices.</p>	<p>Strategic approach is based on Keeping Cities Moving.</p>	<p>See ‘Improve the safety and attractiveness of streets for walking and cycling’ in section 3 (p. 18) of the Better Travel Choices plan.</p>	<p>The ATAP-recommended strategic approach (pre-GPS-LT 2018) is focused on mobility rather than access and doesn’t consider the land use aspects in detail, beyond stating that greater integration between land use planning and transport planning is needed. One of the main objectives is to reduce congestion as opposed to providing for transport choice or equity. The later strategic documents provide for the integration of land use planning and transport planning in practice.</p> <p>Note that priorities for improving safety and attractiveness for active modes include:</p> <ul style="list-style-type: none"> <li>• Pursue opportunities to align maintenance and renewal programmes with improvements to street design and deliver better safety outcomes for active modes.</li> <li>• Integrate the development and delivery of safety and security programmes with ongoing mode shift work.</li> </ul> <p>But the current RLTP and Network Operating Plan do not indicate that this is happening.</p>



**Table B.2 Regional stocktake – Waikato**

Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Commentary
Hamilton-Waikato Metropolitan Spatial Plan Overall rating – 7/10	Weak direction on this – discusses ‘effective road and walking and cycling connections’ and ‘Plan and design neighbourhoods to make public transport use, walking and cycling easy and attractive’, but does not explicitly state that active modes need to be prioritised in the street design process. Refer to section 2.4.	Density in targeted areas of existing urban area, and in Greenfields. Refer to section 2.4.	No real provision for this.	Access – for example, ‘Better access to amenities and services and reduced economic costs of time spent travelling’. Section 1.2, see also section 2.2.	No discussion on the importance of travel behaviour changes as part of a package to encourage mode shift.	‘Enable quality-built environments, whilst avoiding unnecessary urban sprawl’ and ‘Enhancing the quality of the natural and built environments...’ (section 2.2). Leading to ‘Placemaking’ in section 2.3.	The spatial plan picks up on most of the important aspects of integrated land use and transport planning, but critically does not articulate the problem with the poor levels of service on the existing street network, and the need to improve the level of service for active modes and public transport on these existing networks if the mode shift goals are going to be reached and in turn the successful intensification of the urban areas achieved – needs clarity in the articulation of this issue and stronger direction to increase the likelihood the lower-order planning processes are going to pick this up.  The plan also seems to focus on the existing commercial areas and consolidating these but does not relate this to the idea of mixed-use development.  Travel behaviour change is not mentioned, nor is there any direction for territorial authorities on the importance of preparing an integrated transport strategy and the content of such a strategy.
Hamilton-Waikato Mode Shift Plan Overall rating – 8/10	‘Improving the quality, quantity and performance of public transport facilities and services, and walking and cycling facilities ... can involve both optimising the existing system (e.g. through reallocating road space) and investment in new infrastructure...’ from section 3.	‘Encouraging good quality, compact, mixed-use urban development will result in densities that can support rapid/frequent transit (and vice versa), shorter trips between home and work/education/leisure, and safe, healthy and attractive urban environments’ from section 3.	‘Encouraging good quality, compact, mixed-use urban development will result in densities that can support rapid/frequent transit (and vice versa), shorter trips between home and work/education/leisure, and safe, healthy and attractive urban environments’ from section 3.	Includes the need for mixed-use development and density to improve access.	‘Influencing travel demand and transport choices’ from section 3.	‘Encouraging good quality, compact, mixed-use urban development will result in densities that can support rapid/frequent transit (and vice versa), shorter trips between home and work/education/leisure, and safe, healthy and attractive urban environments’ from section 3.	The plan includes most of the important aspects of integrated land use and transport planning.  The plan recognises the need to re-design streets to accommodate higher-quality active mode and public transport infrastructure but doesn’t clearly pick up on the need to reduce the speed profile of streets as part of the re-design. Moreover, it tends to separate the modes for separate consideration in discrete design guides, rather than recognising that most of the potential cycling and walking network needs to occur in an integrated way on the existing street network – through integrated re-design of streets.  The plan does identify a workstream to develop street design guidance, and waiting for this would delay progress towards better integrated street designs – this could be achieved by adopting the <i>Aotearoa Urban Street Planning and Design Guide</i> , which is already completed, saving a lot of time and resources.  Overall, it provides some good guidance but may not be implemented by local authorities as it is not legislated or required to be included in any legislated plans, it is not fully reflected in the RLTP, and the main method of encouraging local authorities to implement it will be through the funding application process.
Waikato Regional Land Transport Plan 2021–2051 Overall rating – 7/10	Improving active mode safety and amenity is mentioned under several issues, and the role density plays in supporting public transport is also mentioned – section 3.6 and 3.7.  The importance of the spatial planning process is referenced – see section 4.7 for integrated land use and transport underpinning objectives. Prioritise	Role of density is briefly mentioned in several places – section 4.5 notes the importance of density in supporting higher quality public transport.  Urban form used instead of density.  The importance of the spatial planning process is referenced, issue of density is deferred to that process.	Just talks about urban form generally.	Plan is more about mobility than access – for example, section 4.3 (6). ‘Ensure that the priority transport corridors identified in the Hamilton-Waikato Metro Spatial Plan and the Regional Public Transport Plan facilitate the movement of people to achieve urban growth outcomes.’  The importance of urban form is mentioned, but in context of supporting mobility.	Policy 24: ‘Promote travel demand initiatives and technology that supports travel behaviour change, mode shift and compact urban form.’	Just talks about urban form and transport initiatives to improve the active mode environment.	Highlights a funding problem whereby maintenance is funded, but improvements have very little funding – consequently there are serious constraints to achieving the mode shift goals and improved level of service (section 1.4.2).  The prioritisation issue is not as clearly stated as it could be – mode separation is covered, more amenable streets are covered, safety is covered, a lack of funding for improvements is covered etc, but there is no clear statement that draws these together as a street design issue. For example, improvements are identified under safety specifically, but not in active mode improvements in section 4.2 summary of regional priorities.  Implementation measures include: ‘M22 RCAs to plan and deliver improvements to infrastructure that supports safe and accessible active travel options’. But it is not clear what that planning should involve – for example, we would expect review of development code to include ONF and preparation of a design guide for improved level

Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Commentary
	and optimise urban transport networks for different modes and types of road use. Policy P19.						of service for active modes and public transport on the street networks.
Waikato Regional Policy Statement v2018 Overall rating – 4/10	No explicit objective or policies.	Policy 6.15 Density Targets for Future Proof area – Acknowledgement that density is needed, to improve viability of public transport and active modes.  But densities planned for in greenfield areas would not support frequent public transport.	No explicit provision for mixed-use development, except in the city centre.	Policy 6.16 Commercial development in the Future Proof area  This policy is more focused on improving the viability of existing centres than on providing access in greenfield areas.  Intensification in and around the city centre would provide access rather than promoting mobility.	Cross-references the travel behaviour change provisions of the RLTP.	Focuses on density but not quality.	Issue 1.4(i) identifies the integrated relationship between land use and development, and the transport infrastructure network as an issue, but:  <ul style="list-style-type: none"> <li>Obj 3.12 (Built Environment) is high level and concerned with natural resources</li> <li>Policy 4.1 (Integrated Approach) addresses integration at a high level, focusing on the natural environment.</li> </ul> <p>The regional policy statement makes general reference to integrated land use and transport planning but leaves it up to the city council. The wording doesn't promote it – generally just about coordinating infrastructure and land use, not designing the land use or transport in a particular way to achieve outcomes.</p> <p>The Future Proof Areas provisions are a strength but indicate greenfield development may end up being car-dependent due to low densities, focus on commercial development in existing centres, and no direction on improving levels of service for active mode users. Territorial authorities would have to be pro-active in terms of providing for integrated land use and transport planning.</p> <p>Section 6A 'Development Principles' includes some good principles – principle 6A(i), for example, which promotes compact urban form and minimising the need for private cars. But these principles are not backed up with good integrated provisions in the balance of the document – eg, the density targets in section 6.15 would not support high quality public transport, and the transport parts of the policy statement do not provide adequate direction on supporting transport infrastructure level-of-service standards.</p>

**Table B.3 Territorial authority level planning stocktake – Hamilton**

Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Comments
<p>Access Hamilton Strategy (2010), including Access Hamilton PBC (Sept 2018), Access Hamilton Integrated Transport Plan (2010), Action Plans (2010). (Non-statutory &amp; not adopted policy) Overall rating – 5/10</p>	<p>There is a vague implication but nothing explicit. For example, from Themes Four and Five of the Strategy document: ‘... A clear and actively promoted road user hierarchy is an important part of this management. On local roads in residential areas, the feel of the area needs to encourage lower speeds and have a people focus by promoting pedestrian and cycle movement...’ ‘... This will not be achieved through the provision of roads to meet the needs of single occupancy vehicles. We need to continue to provide safe, efficient walking and cycle routes, improved bus facilities and services and to give increased priority to pedestrians in key areas of the city by making them safe and enjoyable...’</p>	<p>See Theme Two: Planning for the Future in the Strategy Document. For example: ‘More compact living environments create communities which can sustain and support the efficient operation of public transport. Services are more likely to cover their own costs and not require significant public subsidy.’</p>	<p>Not addressed in Access Hamilton.</p>	<p>Both. The Strategy and travel behaviour change Action Plan recognise that higher-density development will reduce the need for people to travel long distances and in theory their destinations will be more accessible.</p>	<p>The Strategy includes travel behaviour change and a Travel Demand Management Action Plan.</p>	<p>Not addressed in Access Hamilton.</p>	<p>Missing strategy for car parking, safety, etc in the ‘strategy’ – it just says action plans are needed – strategy for these aspects needs articulating in the strategic documents, not the tactical documents (Action Plans). No real strategy on how to integrate, just saying integration should happen. The Integration Plan is not clear on how the integration was supposed to happen in practice. Outlines many general ambiguous outcomes, but the envisioned future environment is not clearly articulated. There are no issues addressing transport choice – all the issues are car centric. While injury crashes are mentioned, vulnerable road users are not explicitly mentioned. Action Plans: Lack of strategic direction results in actions that are business as usual rather than transformative or embodying integrated land use and transport planning. The document framework promotes silo thinking in each of the action areas, rather than integrated thinking. For example, the parking aspect is covered by a Parking Action Plan that has to include principles for parking because of the lack of integrated strategic planning. Also, safety for vulnerable road users in the Safety Action Plan limits its activity to identifying safety hot spots rather than considering the possibility that there is a general level of risk spread across the network due to the car-oriented street design. The strategy identifies that maintenance and renewal activities provide a good opportunity to upgrade the streets and roads (Theme Four: managing and adapting for the future). Because Access Hamilton lacks integration in its strategy and strong strategic direction, but includes good general principles and approaches, it would rely on good understanding and practice from those practitioners involved, support from elected officials, and a lot of public engagement to get good integrated land use and transport outcomes.</p>
<p>Hamilton Urban Growth Strategy 2010 (Non-statutory &amp; not adopted policy) Overall rating – 4/10</p>	<p>Intended to integrate with Access Hamilton.</p>	<p>Mixed. Strategy is to enable density in targeted areas. But greenfield densities are not sufficient to support high-quality public transport.</p>	<p>Mixed use does not feature in the strategy.</p>	<p>Both. Advantages of access are referred to in dense brownfield contexts, but greenfield contexts are based on mobility.</p>	<p>No.</p>	<p>Under ‘Mend’ the strategy acknowledges that the quality of urban environment needs to improve to enable intensification.</p>	<p>Transport aspects rely on Access Hamilton. The strategy identifies the need to make public areas more interesting and safer, but in terms of streets the strategy refers to the district plan and development code of practice. Densities in greenfield areas don’t seem to be sufficient to support frequent public transport services, so these areas would likely be car dependent.</p>
<p>City Centre Transformation Plan (Non-statutory &amp; not adopted policy) Overall rating – 8/10</p>	<p>Not as explicit as it could be – under ‘A Well-connected Central City’: ‘Walking, biking, micro-mobility and public transport is better enabled...’ and ‘Reducing road speeds to 30km/h at areas of high numbers of pedestrians and cyclists.’</p>	<p>The plan is to increase the density of development in the city centre.</p>	<p>Most of the area is identified for mixed-use development.</p>	<p>Both. Includes city centre living but also efficient travel from the outer suburbs to the city centre.</p>	<p>Outlines the need to reduce car dominance, including demand-based pricing for car parking – under ‘A Place to Call Home’.</p>	<p>This is covered mostly under the ‘A Playful City’ and ‘Blue-Green Central City’ headings.</p>	<p>The plan could be written more clearly so it is less open to interpretation. For example, ‘Reducing road speeds to 30 km/h at areas of high numbers of pedestrians and cyclists’ could be re-written to state ‘reducing speed limits to 30 km/h throughout the central city’ because the balance of the plan is aimed at high numbers of pedestrians and cyclist in the central city. The statement from ‘A Well-Connected Central City’ – ‘Integrate movement and place to reflect character and identity’ – implies a re-design of the streets to create more pedestrian friendly environments, but that section of the plan doesn’t state this explicitly.</p>



Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Comments
	Clarified in the 'Overall Initiatives' section: '...Over the next few years, Hamilton's central city transport and street network will experience change, shifting to be a more people friendly environment and prioritising active travel and public transport. This change will be supported by Access Hamilton...'						So, the importance of redesigning the street environment to support the higher-density mixed-use land uses the plan envisages could be outlined more clearly, as the lack of clarity reduces the likelihood the required integration will be reflected in future projects and development processes.  Current weakness is that it relies on Access Hamilton, which needs re-writing.
2021–2031 Long Term Plan (Statutory – LGA) Overall rating – 5/10	Level-of-service improvements for walking and cycling are focused on the dedicated walking and cycle network rather than on-street improvements.	Only enabling density in brownfield areas, per the NPS-UD requirements.  Does not address density in greenfield areas to promote mode shift or access – Greenfield infrastructure is funded by developers, but the LTP should acknowledge spending required to upgrade existing networks to provide for car-optional development in greenfields areas, and link this to developer contributions.	Only envisaged in the central city.	Mobility focused.	Only mentioned briefly under 'Transport Network':  'Working with the community and stakeholders to raise awareness of travel options and influence travel behaviour (for mode choice and safety) is a very important part of this activity.'	There seems to be a struggle with reconciling growth and creating amenable urban environments. The plan does not refer to the street network providing for higher levels of amenity in areas of intensification. The following quote is interesting:  'This budget is geared as much as possible towards community amenity, however this creates tension with our legislative obligations to enable growth. Our response in preparing the budget was to balance these two tensions to recommend a capital programme of growth infrastructure in the early years that invests at limited levels to meet demand and fund planning work for future growth, aligned to the Hamilton Urban Growth Strategy and the Metro Spatial Plan.' (refer to p. 86 under the heading of 'Growth')	Weakness at the strategic level reflects in LTP funding allocation and project prioritisation.  LTP uses the LGA performance measures and reporting process but relies on the council level of service standards. One new standard has been added this year – an increase in micromobility trips.  None of the required transport integration measures from the City Centre Transformation Plan are included in the LTP – for example, demand-based pricing for parking, or street upgrades in the central city.  Most of the projects within the existing urban area (rather than greenfield areas) are focused on renewals – that is, renewing the network to a standard that is not fit for purpose.  Also, the transport safety programme doesn't appear to be conscious of the principles of Vision Zero, as demonstrated by the following quote describing the safety plan:  'Improving road safety is a big focus and we have set a target of zero deaths (by 2028) on the transport network which is monitored quarterly throughout the year. Areas of the network where crashes occur most frequently are known, and we will invest in these to improve safety for everyone – regardless of how you choose to travel. Investment in road safety education will continue, along with exploring new ways to make sure everyone arrives safely at their destination.' (under 'Transport' on p. 22)  The discussion on safety above indicates there is no strategy to deal with the general lack of safety due to car-oriented design of the road and street network, nor is there recognition that safety is a primary contributor to amenity, and many people will not choose to use active modes if they do not feel safe on the streets.  The programme of infrastructure investment to enable intensification at a strategic level seems to be focused on three waters – does not acknowledge transport network level-of-service improvements required (p. 92 under 'Significant forecasting assumptions').
Long Term Infrastructure Strategy (2021–51 Infrastructure Strategy) (Statutory – LGA) Overall rating – 4/10	The strategy seems to focus more on separation than prioritisation – that is, building separated walkways and cycleways rather than providing safe walking and cycling	Discusses density and housing choice.  Includes pro-active support for intensification that is expected to be enabled through the	Only envisaged in the central city.	Both.  Access is discussed under the '20-Minute City' idea. But the key transport challenges are more about congestion, economic development	No.	This aspect is dealt with in terms of parks and open space, but not in an integrated way to support intensification.	Key Driver 4: Increasing requirements and expectations for transport mode shift.  Adopts the Metro Spatial Plan Vision and Strategic Approach to provision of land use and transport development.  States that it has aligned its transportation activity and investments to the direction of the GPS-LT as much as possible – 'to deliver on

Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Comments
	environments within existing streets – for example, ‘Focus Areas’ under ‘Priority 1. A city that’s easy to live in’.	district plan review process.		and the movement of people, rapid transit etc, and nothing about designing streets differently to improve access for everyone.			these outcomes and maximise available funding to deliver these outcomes’. Under ‘Priority 3. A central city where people love to be – The infrastructure challenges we’re facing’ there is reference to the need for improved street design, but it is identified as a challenge and not resolved: ‘• Retrofitting transport and service corridors is to increase capacity and improve standards difficult and expensive. • Ensuring safety for high numbers of vulnerable road users.’ The plan notes that it takes its strategic direction from a range of strategies etc – for integrated land use and transport the strategies are listed as the Metro Spatial Plan and Access Hamilton, so these strategies would need to be good quality to ensure strong strategic guidance at the tactical Long Term Infrastructure Strategy level. The following statement, which refers to the transport network, seems to indicate a lack of integrated planning and strategic direction: ‘The Council is working to improve the safety of the network through intersection safety upgrades, bridge safety improvements and increased road user education. It is hoped that is [sic] will decrease the number of fatalities and serious injury crashes on the network.’
Hamilton City District Plan (statutory – RMA) Incorporated by reference: Integrated transport assessment requirements Design guidelines Engineering code Overall – 3/10	Obj. 2.2.14 just says that land use and development is integrated with transport. Pol. 2.2.14e just says alternative modes are well connected and integrated across and beyond the city. Design guide is balanced rather than prioritising alternative modes. The integrated transport assessment requirements do not prioritise. Appendix 15-6 ‘Criteria for the Form of Transport Corridors’ does not prioritise alternative modes.	Density needed to support high-quality public transport is limited to the central city and central city fringe residential intensification areas. No strategy to ensure sufficient density of development to support high-quality public transport.	Partly. Mixed use is limited in extent to existing commercial uses (eg, neighbourhood centres) with no potential to expand.	Both. For example, Policy 2.2.7b: ‘Higher-density residential development is located within and close to the Central City, suburban and neighbourhood centres, hospitals, tertiary education facilities and parks, open spaces, and other areas of high social amenity.’ But in practice there is not a lot of opportunity for intensification around the smaller centres as they tend to be surrounded by the general residential zone – this, combined with the lack of opportunity for mixed-use development/growth of the smaller commercial centres, means the strategy is for people in those areas to travel into the larger commercial centres, albeit having the option to do this by alternative modes.	Provided for in the integrated transport assessment requirements.	For example, Objective 2.2.3: ‘Promote safe, compact, sustainable, good quality urban environments that respond positively to their local context.’ Standards for the interface between public and private space included in section 4.4.7. Vista: Hamilton City Design Guide.	<b>Regional Infrastructure Technical Specifications (RITS)</b> (Engineering Code of Practice) <b>RITS incorporates by reference NZS 4404:2010 – figure 3.2:</b> Target operating speeds are not aligned with good integrated land use and transport planning and design Cycleways are provided for when the territorial authority has a defined cycle route. This relies on the territorial authority having a good transport strategy that incorporates good integrated land use and transport planning. Not aligned with the <i>Aotearoa Urban Street Planning and Design Guide</i> . RITS refers to district plan for the <b>need</b> for cycleway provision. Peacocke Structure Plan seems to be the only part of the district plan that explicitly states active modes should be prioritised – refer to section 3.4.4: Transport Network. The integrated land use and transport aspects that are included in the plan tend not to be integrated with other aspects that are needed to support a successful outcome. It is likely that most of the development rolled out under the district plan will be car-dependent rather than car optional.

**Table B.4 Territorial authority level planning stocktake – Auckland**

Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Comments
<b>Auckland Plan (Statutory – Local Government (Auckland Council) Act 2009)</b>							
<b>Roads and Streets Framework, Mode Shift Plan, Parking Policy, Freight Plan, Micro Mobility Plan etc. (non-statutory)</b> – The territorial authority level strategic planning adopts the regional level strategic approach directly, through comprehensive integrated land use and transport strategic plans.							
This institutional arrangement is more effective than the typical situation that involves both regional and territorial authorities. This is because multiple integrated transport strategies do not have to be developed at the local authority level, as a comprehensive regional strategy can be developed. This also ensures consistency in approach across the region and avoids potential undermining of the integrity of the high-level regional strategic approach through either differing interpretations that might go into a local authority level integrated transport strategy, or differing levels of resourcing or capacity within local authorities leading to varying levels of planning quality.							
Auckland Unitary Plan (Statutory – RMA) Overall rating – 6/10	Plan talks about walkability and walkable neighbourhoods but does not prioritise the level of service for active mode users in the transport network. For example, the following objective from the Transport chapter only prioritises pedestrian safety and amenity on footpaths, not when they interact with vehicle traffic within the road carriageway: 'E27 Objective (5) Pedestrian safety and amenity along public footpaths is prioritised.' Also, the following objective from the Transport chapter implicitly places vehicle level of service at the same level as active modes and public transport: 'E27 Objective (2) An integrated transport network including public transport, walking, cycling, private vehicles and freight, is provided for.'	Land zoning regime provides for intensification and density around centres – it could be more consistently applied as some areas around frequent transport stops or centres remain zoned for lower density. For example: H6.3. Policies: 'Enable a variety of housing types at high densities including terrace housing and apartments and integrated residential development such as retirement villages.'	Mixed-use zoning is included, and non-residential activities in residential zones are focused on the daily needs of residents.	Intensifying in brownfield areas is about access to amenities in centres for day-to-day needs but also access to alternative transport options for commuting. Greenfield development tends to be more about mobility – providing for transport infrastructure and connections to support safe and efficient movement for all modes within and through the precinct, rather than providing for daily needs near to residents.	For applications that trigger an integrated transport assessment requirement, the Auckland Transport integrated transport assessment guidelines specifically include travel demand management as a mitigation measure to reduce vehicle demands on the transport network.	Yes. For example, Policy H6.3(3): 'Encourage development to achieve attractive and safe streets and public open spaces including...'	The Auckland Unitary Plan includes integrated transport assessment requirements (Chapter E27), and subdivision criteria include E38.12.2.7(e): 'the effect of the layout, design and pattern of blocks and roads in so far as they contribute to enabling a liveable, walkable and connected neighbourhood'. The Auckland Design Manual and Transport Design Manual should inform designs, and the Transport Design Manual Integrates design guidance with detailed technical requirements in the engineering code of practice – prioritising pedestrian and cyclist level of service. But this is not explicit (ie, the Transport Design Manual is not incorporated by reference in the Auckland Unitary Plan), <b>so practitioner proficiency is a factor.</b> Theoretically, subdivision development can provide for good integrated land use and transport outcomes, but this is not embedded in the legislated plan so is unlikely to happen if other factors like public engagement or lack of alignment between different agencies affect decision making. The lack of pro-active direction in the objectives and policies around priority seems consistent with the issues that were raised in the Randerson Report and its recommendations to replace the RMA – that is, the RMA having an adverse effects-based focus where the baseline for assessing effects is generally the existing environment.
Auckland Council Long Term Plan 2021–2031 (Statutory – LGA) Overall rating – 6/10	The plan does not seem to be aware of the strategic approach developed as part of the ATAP and outlined in the Roads and Streets Framework. The phrase 'improving the attractiveness of public transport, walking and cycling, and other choices, and reducing the proportion of journeys that are made by single occupant private vehicle' is	The plan refers to the Auckland Plan growth strategy, which includes density. Investment is targeted around some key intensification areas to support density.	The plan refers to the Auckland Plan growth strategy, which includes mixed use.	Mobility. For example, under Vol 2 section 2.2 'Public Transport and Travel Demand Management', travel behaviour change is only considered in terms of mode shift, and providing improved levels of service for active mode and public transport within a corridor would only be done if it resulted in more people	Yes, but limited. Only considers travel behaviour change in terms of mode shift and infrastructure investment to reduce congestion or increase the capacity of corridors. No soft measures are included.	The plan tends to focus on maintaining the existing level of environmental quality and ensuring the key services like three waters are in place.	The Long Term Plan uses the One Network Road Classification levels of service to measure success and guide the allocation of transport funding – this classification system and its level-of-service standards do not reflect or promote good integrated land use and transport planning. See the level-of-service standards outlined in the transport assumptions under Vol. 2, section 1.1, Transport, 'Planned transport investment and 'supporting data (most likely scenario)' (p. 66). For example, the 'proportion of road assets in acceptable condition' currently is stated as 92%, and this is expected to increase to 95% by 2031, but this is based on a street design that prioritised vehicle levels of service (traditional mindset) and therefore does not provide adequate levels of



Policy	Prioritisation	Density	Mixed-use	Access or mobility	Travel behaviour change	Urban environment quality	Comments
	<p>repeated often, but there is no mention of the need to prioritise active modes and public transport in the existing street network to achieve this.</p> <p>The exception to this is the city centre redevelopment programme, including the City Centre Master Plan (refer to p. 253).</p>			being moved along the corridor.			<p>service for active modes (safety and amenity) and public transport.</p> <p>The transport safety strategy does not seem to be aware of this significant gap between currently unsafe road design and the 'safe' road design outlined in the Roads and Streets Framework strategic approach.</p> <p>The approach to providing for equity of access focuses on accessibility of jobs by car or public transport, rather than focusing on the accessibility of the transport network, including the public transport network, for people who walk or cycle.</p> <p>The cycle network is considered as the separated strategic network, and improvements in this are planned, but there is no awareness of the part of the network between people's houses and the strategic cycle network, and the safety and amenity of this component of the network. This is also relevant for pedestrian access to public transport.</p> <p>Pedestrian improvements focus on wider footpaths, but do not seem to be aware of the need to reduce speed profiles on streets to improve safety and amenity for pedestrians.</p>
<p>City Centre Master Plan 2020 (Non-statutory) – Access for Everyone (A4E)<sup>4</sup> Overall – 9/10</p>	<p>For example, 'Prioritising road use': 'A4E would rebalance streets to prioritise space-efficient modes of transport, while freeing up road space for journeys that really need it...' The vision statement of A4E for '... an accessible and inclusive city centre' describes it as: 'Inclusivity via universal design ... All people benefit from inclusive design. Most importantly it gives freedom of the city to as many people as possible. ... To achieve this, we need to design and manage streets, buildings, public spaces and public transport according to the goals of universal design.' The plan refers the reader to the Auckland Design Manual.</p>	<p>Supports a growing city centre residential population – refer to 'Vision for residential city centre neighbourhoods'. The city centre is already the most densely populated area in New Zealand, and the population is continuing to grow.</p>	<p>For example, under the outcome 'A Prosperous City', the plan explains that: 'the [City Centre Master Plan] seeks to support retail, dining and entertainment by making the city centre easier to reach, more inviting to explore and more pleasant to be in. Auckland city centre is one of New Zealand's largest retail centres ...' The plan also explains that the city centre has a very high number of jobs (~130,000) concentrated in a relatively small geographical area.</p>	<p>The plan is about reducing car dominance in the city centre to ensure the city centre is accessible to all members of the community.</p>	<p>The plan deals only with the public assets in the city centre, so travel behaviour change actions are limited to the management of those assets. Travel behaviour change is implicit in the plan in characteristics like reducing car access to the city centre area and redesigning the street network to reduce the feeling of car dominance, and by prioritising other modes, thus encouraging people to use alternative modes of transport.</p>	<p>One of the main aims of the plan is to create a higher quality experience for people in the city centre. This includes outcomes like 'Quality Built Form' and 'Green City Centre'. The plan provides details of projects that will deliver on the outcomes.</p>	<p>The City Centre Master Plan is a tactical plan that outlines how the outcomes and strategic approach of the Auckland Plan, and the Roads and Streets Framework, is planned to be implemented in the city centre.</p>

<sup>4</sup> Refer to: <https://www.aucklandcmp.co.nz/>



## Appendix C: Consolidated recommendations

### Recommendations

1. All planning and design guidance and standards should be updated to reflect an agreed definition for integrated land use and transport planning.
  - a. At the national level, an agreed definition should be included in:
    - i. the LGA and LTMA
    - ii. all policies prepared under the LTMA, RMA and Urban Development Act, such as the NPS-UD, GPS-HUD and GPS-LT
    - iii. national-level planning documents such as Road to Zero, Keeping Cities Moving, ONF, Arataki and the *Aotearoa Urban Street Planning and Design Guide*
    - iv. all future legislation and policies associated with resource management reforms.
  - b. Guidance and standards for local authorities that should be updated include:
    - i. national planning standards
    - ii. spatial planning guidance
    - iii. strategic integrated land use and transport guidance
    - iv. structure planning and master planning design guidance
    - v. integrated transport assessment guidance
    - vi. NPS implementation guidance
    - vii. development contributions guidance.
2. Work with the New Zealand Planning Institute (NZPI), Engineering NZ and universities to include the integration of land use and transport in accredited planning and engineering degrees.
3. Work with professional bodies (such as NZPI and Engineering NZ) to provide continuing professional development programmes to upskill the existing workforce on the topic of integrated land use and transport planning.
  - a. This could include education about tools like soft space planning or TOD, and the limits of existing tools such as traffic models.
4. Change transportation planning practices from mobility-based to accessibility-based analysis. Improve evaluation tools so they are more comprehensive and can consider equity, affordability, safety and environmental quality, alongside explicit goals to reduce vehicle kilometres travelled.
5. Support the development of course content for undergraduate and postgraduate transport planning training programmes/degrees.
6. Develop resources for local authority planners to support them in educating elected members on aspects of integrated land use and transport planning.
7. Consider a national public information campaign to share the vision for transitioning to better urban environments, highlighting the co-benefits of good integrated planning, including emissions reduction, health, equity, and safety for transport system users.
8. Partner with other government agencies working in land use or transport planning to identify perceived conflicts in the agencies' mandates. Where these conflicts cannot be resolved between the agencies:
  - a. this could be escalated to national government for a legislation change

- b. guidance could be provided to local authorities on how to manage these conflicts in implementation.
9. Update the GPS-LT maintenance activity classes to focus on incrementally upgrading streets to provide higher levels of safety and amenity for active mode users at the time renewals are undertaken. A streamlined business case approach/justification for funding should be enabled for street renewals that align with the government policy direction to support integration.
10. Complete and roll out the ONF and the *Aotearoa Urban Street Planning and Design Guide* and provide complementary engineering design standards and codes of practice to replace any out-of-date engineering guidance and codes local authorities may still be using.
11. Develop a National Environmental Standard on Transport System Design to support the implementation of minimum safety and amenity standards for active mode users within new or renewed urban street environments. This should be done in collaboration with the Ministry for the Environment, the Ministry of Transport, the Ministry of Housing and Urban Development, and local authorities.
12. Integrate monitoring and evaluation requirements for integrated land use and transport planning into government funding. If a funding recipient does not meet monitoring and evaluation requirements, this should be considered when that local authority next applies for funding.
13. Review the LGA performance measures and the monitoring and reporting requirements to align with and support implementation of the ONF and the *Aotearoa Urban Street Planning and Design Guide*.
14. Facilitate relationships between Waka Kotahi and other organisations (such as Kāinga Ora or the Ministry for the Environment) through secondments of staff.
15. Support formal integrated relationships with local authorities through funding – for example, providing funding for road-controlling local authorities and council land use planners to develop mixed-used TOD strategies/policies.
16. Ensure resource management reforms result in strong spatial planning processes with complementary legislative requirements that integrate key parameters such as land use development density, mixed use, public transport prioritisation, and prioritising the safety and amenity of active mode users – for example, requirements to enable development density like the NPS-UD, and legislating the key parameters from the ONF and the *Aotearoa Urban Street Planning and Design Guide*.
17. Develop an alternative set of engineering standards for road and street design that can replace the current engineering design codes relied on by local authorities – for example, a revised New Zealand Standard for subdivision and land development (NZS 4404:2010), and the relevant codes of practice from the Auckland Design Manual. Ensure national direction on best practice spatial planning is released when the new legislation comes into effect.
18. Consider consolidating local authority into a single tier (unitary councils), as has been done in Auckland.
19. If unitary councils become widespread, both strategic and tactical transport planning functions should be held within the councils to avoid the horizontal integration barriers observed in the case of Auckland Council and Auckland Transport.
20. Review the LGA performance measures and GPS-LT maintenance activity classes to reflect an integrated land use and transport planning approach with a focus on accessibility by all modes and reducing vehicle kilometres travelled. Detailed business cases should not be required for street upgrades undertaken at the time of street renewals that align with government policy to improve land use and transport integration. This may require a change of Treasury definitions of renewals vs

improvements, and additional performance measures such as 'transport mode split' or 'vehicle kilometres travelled'.

21. Update the LGA (eg, section 93) to require local authorities to prepare and implement a strategic integrated transport strategy to complement their land use planning and regulation activities.
22. Conduct a full policy stocktake of some international locations for a deeper understanding of how integrated land use and transport planning is achieved overseas. Potential study locations identified in the interviews and literature review include:
  - a. Sweden
  - b. Oregon, USA
  - c. Australia
23. Develop better tools for evaluating the full impacts of transportation and land use planning decisions, including integrated spatial models.
24. Investigate examples of small towns or areas experiencing population decline that have had success in integrating land use planning and transport planning. This will be useful in understanding how integration could work in similar contexts in Aotearoa New Zealand.
25. Conduct case study investigations of projects that have worked well in Aotearoa New Zealand. This could involve interviews with planners involved and a stocktake of policies and plans influencing the project. Potential contexts include:
  - a. Future Proof planning context in the Waikato
  - b. Kāinga Ora partnerships with local councils.
26. Investigate the potential impacts or opportunities of integrated planning for Māori. This could include specific equity impacts, or opportunities to partner with Māori throughout integrated planning processes.
27. Further investigate funding models used overseas to promote integrated planning.