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NEW ZEALAND
PRODUCTIVITY COMMISSION
Te Kōmihana Whai Hua o Aotearoa

Using land for housing

September 2015

The Productivity Commission aims to provide insightful, well-informed and accessible advice that leads to the best possible improvement in the wellbeing of New Zealanders.

Using land for housing

September 2015

The New Zealand Productivity Commission – Te Kōmihana Whai Hua o Aotearoa[1]

Date: September 2015

The Commission – an independent Crown entity – completes in-depth inquiry reports on topics selected by the Government, carries out productivity-related research, and promotes understanding of productivity issues. The Commission aims to provide insightful, well-informed and accessible advice that leads to the best possible improvement in the wellbeing of New Zealanders. The Commission is bound and guided by the New Zealand Productivity Commission Act 2010.

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[1] The Commission that pursues abundance for New Zealand.

Foreword

The Commission's first inquiry report *Housing affordability* in 2012 identified a range of factors that affect the price of housing. The supply of infrastructure-enabled land for housing was identified as a key constraint. The Commission was pleased therefore to be asked to "dig deep" into the processes by which land is zoned and serviced for housing to see where improvements can be made.

The inquiry has found that the planning system is not responsive to changes in demand for housing in our fastest growing cities. It places unnecessary constraints on the use of available residential land and the supply of infrastructure to new residential land can in effect be rationed.

This is because in many of our cities the local political economy is stacked against growth. Ratepayers often do not want the higher rates bill and debt levels that accompany more infrastructure expenditure. Homeowners may oppose more development in their neighbourhoods, because of concerns about the impacts on the value and amenity of their homes. Landowners whose properties earn capital gains because of restricted supply may not welcome larger releases of residential land. These "insiders" have strong reasons to engage in local political processes to defend their interests, to the detriment of "outsiders".

The Commission has identified a number of areas where the responsiveness of urban planning could be improved, but the most important step that needs to be taken is a credible commitment to bring land price inflation under control. This is needed to shift incentives on all the players in the land supply and development system. Only then can we stem the escalating land and house prices that result from an insufficient supply of ready-to-build land. This report lays out what is necessary for the supply of land for housing to meet demand.

Professor Sally Davenport, Dr Graham Scott and I oversaw the preparation of this report. We acknowledge the co-operation and support of Local Government New Zealand and the councils around New Zealand who engaged with us in this inquiry and provided valuable information. The Commissioners would like to acknowledge the work and commitment of the inquiry team: Steven Bailey (inquiry director), Judy Kavanagh, Kevin Moar, Nicholas Green, Terry Genet, Rosara Joseph and Tim Maddock, along with the Commission's Economics and Research team who contributed important new analysis of New Zealand's land and housing data.

MURRAY SHERWIN
Chair
September 2015

Terms of reference

PRODUCTIVITY COMMISSION INQUIRY INTO THE SUPPLY AND DEVELOPMENT CAPACITY OF LAND FOR HOUSING IN NEW ZEALAND CITIES

Issued by the Minister of Finance, the Minister of Housing, the Minister of Local Government, and the Minister for the Environment (the "referring Ministers").

Pursuant to sections 9 and 11 of the New Zealand Productivity Commission Act 2010, we hereby request that the Productivity Commission [the Commission] undertake an inquiry to assess and identify improvements in local and regional authorities' land use regulation, planning, and development systems. These systems should be reviewed with respect to how they deliver an adequate supply of development capacity for housing.

Context

Ensuring that rapidly growing cities can efficiently supply and use land to house people in an affordable manner has the potential to make a significant difference to New Zealand households' living standards and support national productivity and macroeconomic stability.

The Productivity Commission's 2012 report – *Housing affordability*, identified planning, land use regulation and the systems for supply of infrastructure as playing a critical role in managing the growth in cities. The Commission's 2012 report, and its 2013 Local government report, highlighted variability in regulatory practices across local and regional authorities. This inquiry seeks to explore and understand the practices of local and regional authorities in more detail, with the aim of improving overall performance, given that, over the next several decades, the population in several major cities will grow significantly.

Local and regional authority planning systems aim to balance the competing social, environmental and economic impacts of development. Planning systems and land regulations include the regulatory requirements imposed by central, local, and regional government and the actions of regulators. Development systems include the institutions, plans, policies, processes and appeal rights on the use of land, including changes to its use.

Planning and development systems affect the potential uses of land with the intention of delivering social benefits to the local community. Delivering these social benefits will have a significant influence on the cost, availability and development capacity of land for new housing.

The past decade has seen a large increase in New Zealand house prices. The reasons for this increase are multi-faceted. One important factor has been the approach to land use planning and regulation.

Over time the range of objectives of local authority planning systems has increased and the environment in which they operate has become increasingly complex. The framework within which local authorities reach decisions has been subject to ongoing reform, but there remains significant autonomy for local authorities to set their own rules and make decisions on development within their area. This is consistent with the promotion of local democracy and the concept of subsidiarity. There are increased requirements to extend the planning horizon in dealing with environmental and infrastructure issues.

Decisions about the use of land are important to the community. They involve costs to some, and benefits to others. Community consultation can and should influence the outcome, but the ways and means of consulting with the community need to be carefully considered to ensure that the needs of the entire community, including the needs of future generations, are being met. Identifying leading practices and innovation in consultative processes is an important way to improve processes, performance, and outcomes across New Zealand.

Scope and aims

The Commission is requested to undertake an inquiry to examine and report, in a comparative sense, the by-laws, processes, and practices of local planning and development systems to identify leading practices that enable the timely delivery of housing of the type, location, and quality demanded by purchasers. The Commission should particularly focus on urban growth areas, including any early lessons from the Housing Accords and Special Housing Areas Act 2013, and consider successful international experiences with urban development.

Planning and development systems should be reviewed with respect to how they deliver an adequate effective supply of development capacity for housing. The inquiry should review practices of the larger urban planning and development systems, including but not limited to the authorities of the largest and/or fastest-growing urban areas, and any comparable international urban areas with valuable lessons.

The Commission would be expected to provide information on absolute and relative performance, identify leading practices, and make recommendations to improve performance with respect to: (i) policies, strategies, outcomes and processes for urban land supply, including the provision of infrastructure; (ii) funding and governance of water and transport infrastructure; (iii) governance, transparency and accountability of the planning system; (iv) the implication of leading practice for the range of laws governing local authority planning; (v) involvement and engagement with the community.

Exclusions

This inquiry is not a fundamental review of the Resource Management Act, and does not include the processing of building consents. It does not include consideration of changes to the ownership of infrastructure assets, but does include the funding and governance (including legal structure of ownership) of those assets.

Consultation

To ensure that the inquiry's findings provide practical and tangible ways to improve the performance of development and planning systems, the Commission should work closely with Local Government New Zealand, Society of Local Government Managers and the wider local government sector.

Timeframes

The Commission must publish a draft report and/or discussion document, for public comment, followed by a final report that must be presented to referring Ministers by 30 September 2015.

Referring Ministers

Hon Bill English, Minister of Finance
Hon Dr Nick Smith, Minister of Housing
Hon Paula Bennett, Minister of Local Government
Hon Amy Adams, Minister for the Environment

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Overview

The Government has asked the Productivity Commission to investigate the processes that New Zealand's fastest-growing local councils use to provide land for housing. These include planning, zoning, and the provision of infrastructure such as roads, parks and water pipes. The Commission has also been asked to identify examples of leading practices from within New Zealand and overseas. In investigating these issues, the Commission focused on ten high growth areas (Whangarei, Auckland, Tauranga, Hamilton, Waikato District, Wellington, Christchurch, Selwyn, Waimakariri and Queenstown Lakes) and sought evidence from a number of other countries.

Why this inquiry is important

Housing is fundamental to our economic and social wellbeing. It plays a central role in individual and community health, family stability and social cohesion. A responsive housing market facilitates labour market mobility, allowing people to move to take up job opportunities, thereby enhancing the productivity of the economy. A poorly performing housing market leads to high housing costs (whether rented or owned), overcrowding, barriers to home ownership, and risks to macroeconomic stability. Providing an adequate supply of land and development capacity for housing has the potential to lift the living standards of many New Zealanders.

Housing supply has struggled to keep pace with strong population growth and demand

New Zealand's population is growing. This growth is concentrated in a handful of cities, but especially in Auckland. The number of dwellings required to house the population of these cities will grow at an even greater rate as average household size becomes smaller. Housing supply in many cities has been sluggish in response to population growth and struggled to keep pace with increasing demand. This has manifested itself in the increased price of housing, and in the high proportion of disposable income spent on housing in New Zealand compared with many other OECD countries. Making sure a choice of housing types is available at different price points, to cater for a range of income levels, is critically important to the effective functioning of the housing market, the economy, and the wellbeing of New Zealanders.

The price of land is increasing, reflecting a constrained and stressed planning system

A number of factors affect the supply of housing, but one of the most important is the availability of land and the land use rules that determine the capacity of land to carry dwellings. Land values have grown more quickly than total property values over the last 20 years. This suggests a shortage of residential land in places where people want to live. The problem is particularly acute in Auckland, where land value accounts for almost 60% of total property value. However, in many high growth councils land is approaching 50% of total property value, compared with about 45% in the rest of New Zealand.

Planning systems and land use regulations imposed by central, regional and local government affect the speed and efficiency with which land is made available for residential development, including the more intensive use of land within existing city boundaries. Decisions about the amount of land to be released, the timing of when this will happen, how it can be developed, and when it will be serviced with infrastructure, all directly impact on the price of land and, in turn, on the price of housing. Constraints on the release of land and development capacity (within and on the edge of cities) create scarcity, limit housing choice, and increase housing prices. These impacts are disproportionately felt by people on lower incomes.

Unlocking land supply is a critical first step

Unlocking land for housing is a necessary first step and catalyst for productivity improvements in other parts of the housing supply pipeline. Unlocking land allows economies of scale in land assembly, land development and housing construction. Larger building firms are able to generate scale efficiency from building large numbers of houses on contiguous sites and by purchasing at a greater scale, particularly building materials. Yet the building industry in New Zealand is characterised by small firms that build just one or two houses a year. The current industry structure is a product of the environment in which it operates,

which is characterised by fragmented and expensive land supply. Importantly, without greater land supply, any construction efficiencies are likely to accrue to landowners, rather than home buyers.

Substantial benefits are on offer

A report considering global housing affordability issues concludes that "unlocking land supply at the right location is the most critical step in providing affordable housing" (McKinsey Institute, 2014, p. 7). The report estimates that unlocking land supply could reduce the annualised cost of a standard unit of housing by between 8% and 23%. Remarkably, in the world's least affordable cities (including Auckland), unlocking land supply could help to reduce the cost of housing by between 31% and 47%. Productivity improvements in construction, by taking advantages of scale or taking an industrial approach to construction, could help to reduce the cost of housing by a further 12%–16%.

Local regulatory constraints to releasing land and development capacity for housing have national and economy-wide impacts. Overseas research suggests that constraints on the supply of housing in high-wage cities can price out workers who would be more productive if they could move to take up the opportunities available. Lifting barriers to urban growth by releasing land and development capacity in these cities would increase a country's Gross Domestic Product (GDP).

Quantifying the size of the prize is difficult, but it could be significant. One US study (Hsieh & Moretti, 2015) estimates that lowering regulatory constraints on land supply in three high-productivity US cities – New York, San Francisco and San Jose – to that of the median level of restrictiveness in the United States would increase GDP by 9.5%. A productivity bonus anywhere near this level would be of major significance to the New Zealand economy. Indeed, it is difficult to think of many other policies that would yield such an improvement in the nation's economy.

The inquiry

This inquiry investigates the effectiveness and efficiency of the planning and development system in New Zealand:

- How well does the system meet the demand for land in its most valued use?
- How well does the system provide infrastructure efficiently and in a way that is responsive to demand?
- Can the current system be made to work better for New Zealanders?
- Are different approaches required to deal with the complexity, incentives and coordination problems faced by our fastest growing cities?

A number of incremental improvements are recommended, but more fundamental change is needed to resolve land supply issues.

The New Zealand planning system

To understand the current nature and performance of New Zealand's planning system, it is important to understand how the system has evolved over time. The following themes have dominated:

- changing views about the role of local authorities;
- rising expectations of community participation in planning decisions;
- an increasing weight placed on environmental protection; and
- expansions in the perceived role and scope of planning.

Responsibility for land use regulation, planning and the provision of infrastructure (with the exception of main highways) has been progressively devolved to local government, and formal rights for the public to be consulted and/or object to land use rules or proposed developments have expanded. Despite repeated

changes to the underlying legislation, there have been longstanding concerns about constraints placed by the planning system on development.

New Zealand's constitutional and institutional arrangements give particular discretion and autonomy to local authorities in regulating land use and providing infrastructure. In comparison to state or national governments in other developed countries, central government in New Zealand plays a limited role in urban policy, regulation and the provision of infrastructure. As a result, any misalignment of incentives between local and national interests may be more pronounced in New Zealand than in other countries.

New Zealand's planning system is complex. It is governed by three main statutes (Box 1). Each statute creates its own set of institutions, policies, processes and rules. Together they set the regulatory framework for the supply of land and development capacity required for housing.

Box 1 **Regulatory framework for the planning and development system**

New Zealand's planning and development system is governed by three main Acts of Parliament:

- the Resource Management Act 1991 establishes processes to authorise, limit or prohibit the use of land, so as to promote "sustainable management";
- the Local Government Act 2002 establishes processes to shape the provision of infrastructure needed to make land viable for housing; and
- the Land Transport Management Act 2003 establishes processes to shape the provision of transport infrastructure and services.

A host of other statutes also have an impact on the planning and development system, including the Building Act 2004, the Public Works Act 1981, the Reserves Act 1977, the Property Law Act 2007, the Unit Titles Act 2010, and the Local Government (Rating) Act 2002.

Cities, growth and land for housing

The concentration of people and firms within cities creates benefits both for their residents and for the country as a whole. When cities function well, they provide greater choices of employment and a wider pool of labour, more opportunities for specialisation, and easier transfer of ideas. Cities also raise the prosperity and wellbeing of surrounding regions. Cities are not only places where people work; they are also places where they play and consume goods and services. But the growth of cities also creates costs, such as pressure on infrastructure and the availability and cost of housing. This puts a premium on good city organisation and the ability to effectively plan for growth.

Because decision making about whether to accommodate growth is made at the local level, this can result in a lower level, or a slower pace, of growth than would be optimal from the perspective of the national economy. Growth can be stymied through planning regulation and rules that do not make the best use of land, or by poorly coordinated or rationed infrastructure at the local level. The implications for the nation's wellbeing can, however, be much wider. Local regulations that restrict the supply of land to accommodate growth can result in escalating housing prices that impact on individuals, society and the wider economy. This mismatch of interests creates a 'wedge' between local and national interests about the costs and benefits of growth in the areas in New Zealand experiencing the greatest housing demand.

Overall, New Zealand's housing market is only moderately responsive to changes in prices, meaning that an increase in demand for housing will lead to a proportionately larger increase in the price of existing housing than in the construction of new housing. Part of the reason for this is that the planning system releases land through a policy and political process. It is not responsive to price signals, which would provide information about the location and type of housing that people demand and about the adequacy of supply. A fundamental disconnect exists between the demand for housing and the supply response of the planning system. Where the demand for land exceeds the supply allocated through the planning system, landowners

and developers act like monopolists. They are able to restrict the supply of zoned and serviced land to maintain high prices.

The political economy of local planning ultimately determines the outcomes that are seen from the planning and development system. The influence of existing homeowners on land use regulation and on infrastructure spending restrict the supply of land for housing and limit expenditure on the infrastructure required to support urban growth. Homeowners have an incentive to oppose developments that could negatively affect the amenity and value of their homes and that may involve new infrastructure spending and higher rates. This opposition is expressed through the political process. The disproportionate influence of homeowners in local government elections and consultation processes promotes regulation that has the effect of reducing land supply for housing. Examples include urban containment policies, height restrictions, minimum apartment sizes, density controls and a reluctance to use available funding sources resulting in the rationing of growth-enabling infrastructure.

The impact of local decision making on the nation's wellbeing can be significant. The failure to provide an adequate supply of infrastructure-enabled land to meet the demand for housing results in escalating housing prices that has impacts on individuals, society and the wider economy. Central government ultimately bears the risks and costs associated with these local decisions. The consequences include high housing costs (whether rented or owned), overcrowding, barriers to some groups accumulating wealth, limits on the ability of people to seek better employment opportunities in cities, obstacles to potential productivity gains, and risks to macroeconomic stability. There is a strong argument that those bearing the costs of constraints on land supply are not effectively represented in the planning system at present. National and local interests in the planning system need realignment.

The rating system and land for housing

Local government rates allocate a fixed revenue burden among ratepayers. Although growth provides councils with the opportunity to spread expenditure over a larger rating base, new growth also increases expenditure. The connection between the size of the revenue base or its value, and the total amount of revenue collected, is not automatic. The structure of council rating in New Zealand therefore means local authorities have weak incentives to accommodate growth. And ratepayers don't like the financial costs of new growth.

The first step to address this weak incentive is to make sure that the costs of growth are not unnecessarily passed on to ratepayers through general rates. More efficient pricing and cost recovery policies would mean that the infrastructure necessary to service growth is paid by those who benefit from it, and provide better signals for where development should occur.

A number of influences can impact on the choices of landowners with respect to holding or making land available for development. These influences include financial constraints, a council's planning and regulatory barriers, difficult sites, the prospects of capital gain, and lifestyle reasons. Owners of Māori land also have differing views on the desirability of developing their land.

Owners of developable land face a choice between releasing land for development, and holding it in anticipation of greater future returns. Where expected demand is high, or land is scarce, the incentives to hold land can be strong. Land banking is therefore a symptom, rather than a primary cause, of land supply shortages. Strategies to encourage owners of land to develop it for housing rather than holding it should focus on

- increasing certainty about what can be developed on a site;
- reducing the scarcity value of land, through a commitment to ensuring that zoning and servicing land is responsive to demand; and
- influencing holding costs, at the margin, to reduce the expected future returns on land development.

Council rates are a type of tax, and can influence landowners' decisions about how they use their land. A capital value rating system taxes the improvements on land; so, at the margin, owners are discouraged from

developing land or intensifying development on it. By contrast, a land value rating system encourages land to flow to its highest value use and, at the margin, discourages holding undeveloped land.

The trend in recent decades has been for city councils to abandon land value rating in favour of capital value rating. The arguments that support this shift in policy are not strong. The Commission acknowledges that changing back to land value rating would cause significant administrative costs and disruption for these councils. However, where councils review their rating policies, they should consider the merits of land value rating in encouraging the efficient use of land.

The Crown is also a major landowner in New Zealand cities, and should face similar incentives to the private sector to hold or release land. Core Crown land has long been exempt from general rates. No principled reason for this is apparent. Rating Crown land would provide government agencies with the same incentives that private owners face to use land or release it to those who will develop it. Similarly, some land used by councils is non-rateable. Rating such land would help make clear the opportunity cost of councils' own land use decisions.

The planning system can work better

The Commission has examined the planning and development system and identified the need for improvements in the following areas:

- the ability of cities to build up or out in response to a greater demand for housing;
- the speed with which land can be rezoned for housing and approvals issued for development; and
- policies targeting lower-cost housing.

Regulatory barriers to the growth of cities

Land use regulations affect the supply and price of development capacity by limiting the use of particular parcels of land, prohibiting various types of housing or making them uneconomic to produce, and adding steps and cost to development processes. This limits the ability of supply to meet the demand for housing.

Land regulation can constrain the ability of cities to "build up" and "build out" to accommodate their growing populations. The impacts of restrictive regulation are most prominent in Auckland, but this partly reflects high demand. If other cities were growing as fast as Auckland, similar effects would be seen in them.

Overly restrictive urban limits increase both land and housing prices. Many of New Zealand's high-growth cities impose, or intend to impose, urban limits. The limits vary in terms of their permanence and their ability to be adjusted in response to market developments. Councils should ensure that mechanisms are in place to promptly review the placement and restrictiveness of urban limits.

Many high-growth councils seek to protect agricultural soil from residential development through policies such as large minimum lot size rules in rural and urban fringe zones. Such policies are unlikely to encourage the most efficient use of land. Land, like any other resource, will tend towards its highest value use. Prices indicate the highest and best use of a particular section of land, and should play a more prominent role in planning decisions.

A number of land use regulations in District Plans have costs that exceed their likely benefits. Examples include minimum apartment sizes and balcony requirements, minimum parking requirements and density limits. Local authorities should remove regulations that do not pass robust cost–benefit tests.

Other land use regulations can provide net benefits if designed well, but are applied in an overly broad manner in some District Plans. Examples include building height limits and heritage or "special character" protection rules. Councils should review existing rules, to ensure that those rules are well-targeted and supported by robust analysis.

Private covenants can be a barrier to growth by restricting the current and future development capacity of land. Yet they can also create incentives for development and allow private individuals to make

arrangements that increase their wellbeing. The Commission does not see a strong case to regulate the content of covenants or give local authorities the power to overturn covenants. However, the Commission considers that time limits on covenants, and reforms which make it easier for landowners to modify or extinguish covenants, have merit.

Multiple or conflicting objectives in District Plans, inadequate analysis before rules are introduced, and poor overlaps with other regulatory frameworks are key sources of unnecessary regulatory costs. Wider and better use of cost–benefit analysis (CBA) by councils is necessary to reinforce the public interest in land use regulation and to provide greater discipline in making regulation. Central government has scope to provide technical assistance to help local authorities conduct better CBA of proposed land use rules, through arranging training and providing templates and technical guides.

Rezoning and approval processes

The ability to promptly rezone land plays an important part in increasing land supply, by bringing new land to market (by converting rural land to residential or industrial use) and increasing the development capacity of existing urban land (eg, by increasing height limits or reducing minimum lot sizes). When investigating options for change, the challenge is to strike the right balance between the goals of speeding up planning processes and ensuring that regulatory processes provide quality outcomes.

A plan change is the mechanism used to rezone land for different uses. Councils in high-growth cities take longer on average to make plan changes operative than other local authorities. However, the available data do not support claims that plan changes typically take many years to complete. Longer timeframes for plan changes in high-growth areas partly reflect the fact that cities have more people and therefore more complex interests to manage.

The Commission has identified a number of improvements to the consultation obligations on local authorities, including:

- restricting the ability to make additional submissions on proposed plan changes; and
- allowing for limited notification of site-specific plan changes.

Leading practices include engaging with affected parties on proposed plan changes ahead of their notification, and the use of broad zones that enable a wide range of activities. This may help reduce the incidence of appeals. The current consultation process requirements in the Resource Management Act 1991 (RMA) should be reviewed to ensure they are not unduly impeding more innovative engagement processes.

A number of submissions to this inquiry argued that access to appeals on plan changes should be limited. While limiting access to appeals could speed up rezoning, any reductions in timeframes may not be large and would need to be weighed against the loss of an institutional check on local authority regulation-making. The Commission is not persuaded by arguments that removing or significantly limiting the access to appeals would improve the quality of District Plans or land use regulations.

The time it takes to gain an approval for development matters for housing affordability. Uncertainty about council obligations and problems coordinating between different units within councils create costs and delays for developers. Processes to improve internal council coordination (eg, "one-stop shops") and greater use of electronic planning tools help to reduce these delays. Scope also exists for greater liberalisation within the planning system, and local authorities should look for opportunities to move more residential land-use activities to either "permitted" or "restricted discretionary" status.

Policies targeting lower-cost housing

One distinctive feature of New Zealand housing markets over the past 30 years has been the shift in new housing production towards more expensive dwellings. As a result, concerns have been expressed about the future provision of lower-cost dwellings and the existing supply of such housing. Some local authorities have taken steps through their planning provisions to encourage the provision or retention of lower-cost housing through rules or conditions attached to rezoning or development applications (also known as inclusionary zoning or inclusionary housing policies).

Such policies are commonly applied in overseas jurisdictions. In New Zealand, only Auckland Council and Queenstown Lakes District Council have inclusionary housing provisions in their current or proposed District Plans.

Special Housing Areas (SHAs) and Housing Accords have created new opportunities to introduce inclusionary housing policies. Cities and high-growth areas with Housing Accords have taken different approaches, with some requiring developments in SHAs to provide a proportion of housing at specified price thresholds, and/or for people at specified incomes. Others have preferred to negotiate with developers on a case-by-case basis.

International evidence suggests that inclusionary housing policies have a very small impact on the overall supply of lower-priced housing, and can have a number of other undesirable effects. The Commission does not see a strong case for their expansion in New Zealand. Inclusionary housing policies tackle the symptoms of the reduced supply of lower-priced housing, rather than the causes. These causes include restrictive planning controls and the high-cost nature of New Zealand's building industry.

To increase the supply of lower-priced housing, central government and local authorities should focus instead on easing planning controls and establishing or supporting institutions that can reduce barriers to supply such as the lack of land parcels that are sizeable enough to make large-scale development economic.

One important contribution that governments can provide to support the development of lower-cost housing is land. Central government and local authorities own large amounts of land, although information about the quantity and state of this land is patchy. Available information suggests that significant amounts of public land may be bare, vacant or substantially unimproved, and suitable for residential development. The Government and local authorities should make an inventory of their land holdings to identify sites that could be freed up for housing.

The Government has recently announced a tender to use more than 400 hectares of Crown land in Auckland for housing, and has taken early steps to use public land in Christchurch to increase the supply of affordable housing. There are likely opportunities to use surplus public land in other high-growth cities to help offset the shortfall of lower-priced housing, especially through partnerships with other landowners to achieve scale.

Getting infrastructure in place

Infrastructure is a critical part of the housing supply pipeline and a significant share of the total cost of new dwellings (Box 2). Releasing land that is not serviced with infrastructure does nothing to improve housing supply. Providing infrastructure for new housing can be an expensive and risky undertaking for councils. Councils that install new infrastructure ahead of housing demand may find themselves facing high borrowing and depreciation costs, particularly if growth occurs at a slower rate than anticipated. For this reason, many councils tightly control the supply of new infrastructure. This constrains the supply of land that is both zoned and serviced for housing.

Box 2 **Infrastructure needed to support growth**

Accommodating residential growth requires:

- transport – highways, local roads, footpaths and cycleways, and public transport;
- water – drinking water supply (also referred to as "potable water"), collection and treatment of wastewater, and the removal of stormwater (collectively "3 waters");
- energy – electricity and natural gas transmission and distribution;
- telecommunications – fixed line, mobile coverage and internet; and
- social and community infrastructure – eg, public recreation spaces and libraries.

Most types of infrastructure can be grouped into two categories: trunk infrastructure and local infrastructure. Trunk infrastructure refers to assets that serve a large number of households, such as trunk water lines or urban rail services. Local infrastructure relates to the requirements that are specific to a subdivision or dwelling, such as individual connections to trunk water.

The Commission has examined how infrastructure is planned, delivered, funded and governed across high-growth councils in New Zealand, as well as overseas. Some important themes have been identified.

- Cost recovery and efficient pricing: These provide incentives for councils to invest in growth-enabling infrastructure and mean that developers face the full costs of different development typologies, whether greenfield or brownfield.
- Coordination: A responsive and efficient supply of infrastructure requires the coordination and alignment of numerous actors and different planning processes.
- Competition: Where competition in the provision of infrastructure is limited, local public monopoly provision requires an appropriate monitoring and regulatory framework.

Infrastructure planning and delivery

Effectively managing ageing assets and funding the renewal of infrastructure will be major challenges for councils in the coming years.

Good information and good asset management practices enable councils to make better use of existing assets, better coordinate and schedule maintenance and replacement work, set well-informed infrastructure standards, and improve the coordination of infrastructure delivery among different providers. Such practices also allow an evidence-based approach to spatial planning. Wellington City Council's approach to asset management is a leading practice.

The gains from unlocking spare capacity within existing infrastructure networks and using infrastructure more efficiently can be substantial. Exploiting spare network capacity requires a deep understanding of existing infrastructure assets and the current and future network demand, and permissive planning rules that allow intensification to occur in areas where excess capacity exists.

A challenge for councils is to strike the right balance between making sure shovel-ready land is available to meet demand and not over-capitalising in the construction of costly infrastructure. The following leading practices can help councils to manage this balance.

- Staged construction techniques that lower the upfront costs and allow services to be scaled up as demand increases can help to overcome the difficulties of investing in infrastructure to support future growth. The staged construction approach that Selwyn District Council uses is a good example of this practice.
- "Development agreements" enable developers to take responsibility for building infrastructure that a council would usually build. This has the potential to generate a swifter and lower cost supply of infrastructure. The requirement for councils to consider all requests to enter into development agreements should also apply to council controlled organisations (CCOs).
- Councils should publish information about land availability and its readiness for residential building (eg, planned for future zoning; zoned; zoned and serviced; zoned, serviced and consented).

Councils should make more use of user charges where this can reduce demands on, and prolong the life of, critical infrastructure. User charges are an effective approach to managing demand and have substantial potential to reduce the operating expenditure of councils, and delay or avoid capital investments in new infrastructure. Tauranga City Council's introduction of water meters and volumetric charges has resulted in a significant reduction in demand for water. This, in turn, has generated significant savings, primarily because

upgrades to water infrastructure can be delayed. Similar benefits are being realised in other cities, including Auckland, where user charges are in place for water. Other cities could replicate this experience. Government should facilitate infrastructure demand management by removing legislative restrictions on user charges for roads and wastewater.

Infrastructure standards imposed by councils can be a source of tension between developers and councils. Decisions about imposing or changing infrastructure standards should be evidence-based and subject to robust CBA. Where a good case to change infrastructure standards exists, those developments already with consent should be exempt from the change or be compensated for the additional costs incurred.

Variations in infrastructure standards between different councils can create unnecessary costs for developers and infrastructure providers that work across multiple council areas. The Commission has identified a number of leading practice instruments and forums that promote consistency of standards across local authority jurisdictions.

Council infrastructure exists alongside infrastructure that is built and maintained by private utility companies. In some cases, these other infrastructure providers are not well integrated into broader planning and land development processes. The Auckland Infrastructure and Procurement Forum connects infrastructure providers, advisors, builders and suppliers to provide for better procurement and coordination of major construction projects. Likewise, the SmartGrowth Property Developers Forum has improved the dialogue between councils and developers and allowed direct industry participation in reviewing and implementing the SmartGrowth strategy. These approaches to integration work well and could be adopted more broadly.

Paying for infrastructure

Paying for the infrastructure needed to support urban growth is a significant challenge for many high-growth councils. The costs associated with urban infrastructure appear to be rising. Many high-growth councils report that the cost of new infrastructure has a major influence on the rate of residential development. Factors underlying the increasing cost of infrastructure provision include increasing standards and the spread of development into land areas that are more costly to service.

Having effective processes in place to recover the costs of infrastructure from the parties that benefit from the investment is important. It is also important to acknowledge the way that councils build infrastructure and operate existing assets can also make a material difference to costs. Any decisions about how infrastructure is paid for should be framed in the context of ongoing efforts to ensure that infrastructure is provided and managed in a disciplined, cost-effective and efficient manner.

Debt is an important source of finance for urban infrastructure in high-growth areas. It enables councils to deliver infrastructure when it is most needed and for infrastructure costs to be spread over the life of the asset. This means that those who benefit from the infrastructure contribute to paying for it, which promotes intergenerational equity. Recent reviews have not identified any issues or concern with the use of debt by high-growth councils. Indeed, many councils are well within prudent debt benchmarks, and arguably take a conservative approach to taking on debt. This is likely driven by community attitudes and opposition to debt, as debt is perceived to lead to future rates increases.

Recent legislative changes have introduced a debt-servicing benchmark. Many high-growth councils are well within the benchmark. The effect of this benchmark may deter a council from taking on prudent levels of debt. The Commission recommends that the effects of the debt-servicing benchmark should be monitored over the coming years to see how it influences a council's ability to provide infrastructure to support growth and to determine whether current benchmarks for debt-servicing ratios are appropriate for high-growth councils.

Development contributions play an important role in enabling the provision of infrastructure to support growth. Linking payment for some types of additional infrastructure to the benefits received helps to ensure that investment reflects its opportunity cost and that locational decisions are efficient. Despite recent changes to the LGA that sought to improve the approach to development contributions, such contributions remain a source of tension between developers and councils. A number of leading practices have been

identified to improve the implementation and administration of development contributions policy. Three of these practices are noted below.

- Development contributions policies should recognise that certain dwelling characteristics result in lower or higher costs on the infrastructure network, and this should be reflected in the size of the development contribution.
- Policies that enable flexibility when development contributions are required to be paid will make it easier for developers to finance development and improve the viability of some projects.
- Informal review mechanisms allow an open dialogue between council and developers to improve the development contributions policy and implementation.

Councils have considerable scope to increase their use of targeted rates to recoup the upfront costs of growth-related infrastructure over a longer timeframe. This is particularly suitable for community infrastructure that benefits a wider group than just new developments and which cannot be funded through development contributions. This funding approach allows the cost of infrastructure to be attributed to those that benefit from the investment and be spread over the life of the asset.

Tax increment financing (TIF) is used to raise finance for infrastructure in other countries and some inquiry participants suggested that the approach might be adopted in New Zealand. The idea behind TIF is that a local authority forecasts the increase in tax revenue that will result from an infrastructure investment, and borrows against that future income. However, a straight adoption of TIF as practised in other countries does not appear well suited to financing many types of growth-related infrastructure. It also does not fit easily with New Zealand's current rating system. Allowing councils to levy targeted rates based on changes in property value that result from the addition of new infrastructure would capture many of the benefits of TIF. The Department of Internal Affairs should investigate amending the Local Government (Rating) Act 2002 to provide for this.

Governance of transport and water infrastructure

Transport and water infrastructure are critical components in an effective supply of land for housing. The governance arrangements for these assets are quite different. For transport infrastructure, central government plays a central role both in a planning and funding capacity; while the arrangements for water infrastructure are much more devolved.

The Government Policy Statement on Land Transport includes relatively weak reference to land supply for housing. A stronger focus on how transport infrastructure can support land supply for housing would change the New Zealand Transport Agency's investment priorities and might help to free up land supply in high-growth cities.

The current governance arrangements for water infrastructure have three major shortcomings that are likely to inhibit affordable and efficient provision:

- fragmentation in water provision;
- problems associated with monopoly provision; and
- evidence of inefficient pricing.

Governments in other countries have sought to increase the scale of water provision through mergers of existing providers. This can deliver scale economies and gains in capability. However, mergers have not always resulted in increased performance or efficiency. This points to the need for a careful assessment of costs and benefits before undertaking any merger.

Water services have a range of characteristics that have led to local public monopoly provision. This has a number of well-recognised issues, including weak incentives to minimise supply costs, weak accountability, and susceptibility to political interference. These can have consequences for the provision of water infrastructure to support urban growth.

Watercare – Auckland Council's water provider – does not currently recover the full costs of growth. This has the potential to create disincentives on both the CCO and existing residents to accommodate new growth. Watercare should change its approach to calculating infrastructure growth charges to better reflect the underlying economic costs of supply in different locations and for different types of dwelling. These charges should be subject to the same appeal processes as development contributions.

The current legislative restrictions on the use of contracting or franchise arrangements for delivery of water services limit the ability to create contestability in water provision. The Local Government Act 2002 should be amended to provide councils with a wider range of options for providing and managing water services. Legislative barriers to the use of contracting arrangements for water services should be repealed.

The Commission has found that the regulatory and institutional framework around the water sector can be improved. More clarity around the statutory framework for water supply, wastewater and stormwater; more discipline and transparency around the pricing of water services; and better performance monitoring, would improve the ability of the water sector to support urban growth.

In regard to Auckland's CCOs, there is scope to improve coordination and give greater priority to growth. Auckland Council should ensure that its CCOs are aligned with the Auckland Plan and its target for new dwellings. The statement of intents of Auckland Transport and Watercare should be amended to include performance measures relating to the efficient roll-out of new infrastructure to support an increased supply of new dwellings.

More fundamental reform of the planning system

A key task for this inquiry has been identifying leading practices and improvements that could be made to the planning system. Many of the findings and recommendations in this report are made in the context of the existing planning and development system. However, the more the Commission looked at the incentives underlying the system, the more it became clear that substantial changes are required to enable cities to better accommodate growth.

Issues with the current legislative planning framework were a recurring theme throughout the course of this inquiry. The current planning framework suffers from a number of systemic weaknesses, including:

- poor integration between the planning processes of the three main Acts;
- inadequate attention to the national interest;
- insufficient recognition of the needs of cities and housing;
- lack of responsiveness; and
- scope creep.

A deeper and more substantive review of the planning framework is needed to deal with issues of poor integration, low responsiveness and scope creep. Such a review would be timely given that the Housing Accords and Special Housing Areas Act 2013 (HASHA) will begin to expire in September 2016. The Commission has heard positive support from submitters for the HASHA and a substantive review would avoid potential gaps opening up in the planning system when HASHA expires.

The details of a future planning framework would need to be worked through a considered policy development process. However, through the course of this inquiry, the Commission has identified a number of elements that could underpin a future planning framework; in particular:

- a formal place in the planning framework for spatial plans – plans that are tightly-specified, evidence-based, include clear growth and housing demand expectations and have greater legislative weight;
- a greater role for central government in city planning, including longer-term infrastructure planning to complement local authority plans, supporting the development of common datasets, working with cities

to ensure their plans are robust enough to meet the demand for housing, and closer monitoring of performance;

- a recognised role for price signals in making planning decisions over factors such as overall land supply, the allocation of different types of land uses within a city, and the need for reviews of planning controls;
- stronger controls on the quality of land use regulation, informed by an evaluation of the processes used by the Auckland and Christchurch Independent Hearings Panels;
- room for more responsive rezoning so that planning controls can adjust more quickly (eg, in response to specified triggers such as the installation of key infrastructure, population densities passing a certain threshold, or evidence of scarcity-based price pressures); and
- greater ability to develop neighbourhood plans through which local authorities can provide infrastructure or other services for neighbourhoods facing significant change.

Taken together, these changes will help to provide greater certainty for developers, more security for local authorities, fewer unnecessary burdens on development, a system that responds more quickly to change, and better recognition of national interests.

Meeting demand for urban space

Under New Zealand's devolved system for land use regulation, councils are responsible for land use decisions, including providing land to meet demand for residential dwellings. Many urban councils in New Zealand have a clear idea about how they want to develop in the future, and how they intend to meet a growing population demand for housing. Many larger cities have chosen to pursue a compact urban form. Yet some of our cities have difficulty in giving effect to this strategy through land use rules. This is because local democratic processes are dominated by interests that resist efforts at urban intensification and accommodating growth. Councils fail to confront the trade-offs between the interests of existing residents and the decisions about land use rules that will be required to accommodate new residents.

Some larger cities are responding to the challenge of delivering on compact city forms by establishing local urban development authorities (UDAs) to redevelop existing urban areas. Auckland and Christchurch have such vehicles, and Wellington is in the process of establishing one. UDAs offer the potential to redevelop sites to deliver large numbers of new dwellings. They can also take advantage of economies of scale to generate efficiencies, and foster a larger, more efficient and more capable construction industry.

Government should support local UDAs by providing for streamlined planning processes, and granting UDAs powers of compulsory acquisition within certain areas designated by the Government.

This report has shown that where councils are unable to confront the trade-offs necessary to provide sufficient residential space to meet growing demand, a range of negative social and economic consequences result. Central government bears many of the consequences of this failure.

One measure of how effectively demand for land for housing is being met is through relative land prices. Large discontinuities between the price of land that can be developed for residential dwellings and land that cannot be developed, is indicative of the inadequacy of development capacity being supplied within a city.

Government should take steps to ensure that where councils are unable to provide sufficient residential space to meet demand, additional ready-to-build land is made available to help the market provide the housing demanded by a growing population. A process should be established to monitor the relative price of developable and non-developable land. Government should also establish a threshold of this price differential, beyond which it will take steps to ensure additional greenfield land will be released. A credible commitment to increasing supply to meet demand will encourage landowners holding land in expectation of capital gain to use or release it for development. It will also encourage infrastructure providers to sharpen their pricing and cost recovery approach.

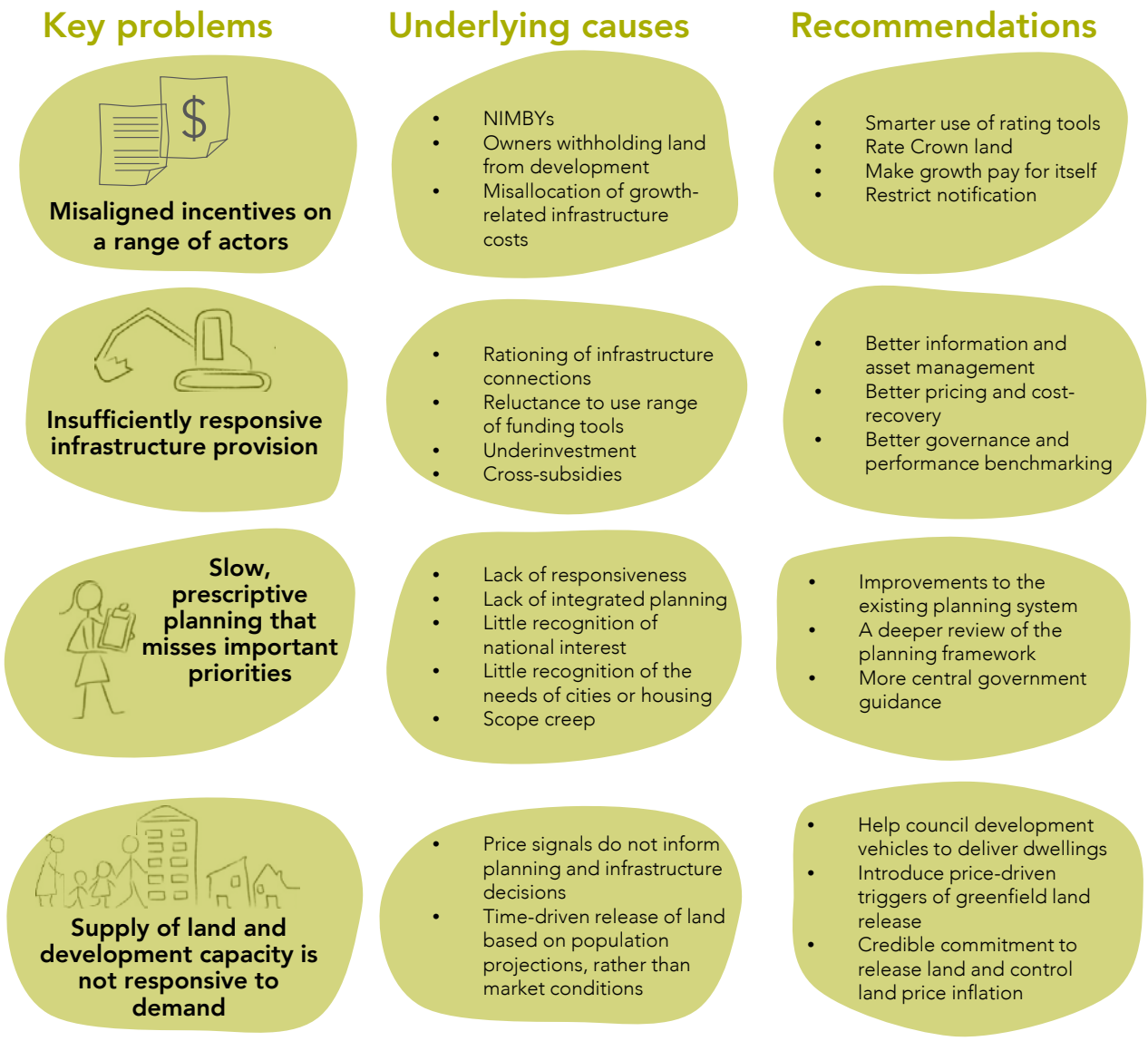
A differential "price trigger" mechanism, as recommended in this report, provides considerable freedom for local authorities to plan their cities, in line with New Zealand's tradition of devolved urban governance. But,

importantly, it encourages councils to confront the trade-offs necessary to give effect to their preferred urban form. The Commission looked at planning systems in other jurisdictions, where local authorities have more limited roles and where central or state governments directly provide infrastructure and have wider decision rights. The Commission concluded that such arrangements would involve considerable costs to central government, would not sit well with New Zealand's constitutional settings, and would not necessarily provide better outcomes. The proposed land "price trigger" respects local decision making, but sets parameters to ensure that these decisions acknowledge the national interest and demand for land for housing. A council can continue to determine the shape of its city's growth, but not its city's size.

Conclusion

This report outlines a range of changes to reform land use rules, planning processes, and local incentives that will measurably improve land supply and development capacity (Figure 1).

Figure 1 Providing land for housing



Where a city faces pressing demand for residential space, a disconnect can emerge between the local and national interest about to what extent, or how fast, the city should accommodate that demand.

New Zealand's highly devolved regulatory framework in land use regulation means that this tension is currently resolved in favour of the local interest. Councils can do a better job of providing development capacity. This will require them to confront trade-offs between the interest of their existing residents and accommodating demand for new housing. The Government can do more to help, through a number of

modifications to the planning system and through supporting local UDAs to provide dwellings consistent with local preferences for a city's future urban form.

Improving the supply of land for housing is a key component in addressing affordability concerns. Yet it is not the only component of a comprehensive solution. This report has not considered the capacity of the building industry to respond to an increased availability of land or to the stronger incentives to develop land for housing. It has not considered the quality of building regulation, the productivity of the construction sector, or the cost of building materials. As outlined in the Commission's report on *Housing affordability* (2012a), these areas also have an important impact on housing affordability. Unless land supply is addressed, any gains in these areas are likely to accrue not to homebuyers but to landowners.

Locally-governed UDAs could play an important role in supporting private sector development. Partnering with UDAs can reduce regulatory risk for private sector developers and builders. UDAs can demonstrate the effectiveness of different approaches to building communities, and allow developers and builders to operate at a larger scale. The Government can support local UDAs in a number of ways to do this, including through providing them with powers to assemble sites for redevelopment.

New Zealand's fastest-growing cities need to accommodate their rising populations. This will require councils to confront the trade-off that has been a central theme of this inquiry – between the wealth and amenity of existing homeowners, and the need of new households for affordable access to quality housing.

Where demand for space is unmet, the resulting significant negative consequences and lost opportunities have to be managed at a national level. There is a point at which these harms become so great that the tension between local interests and national interests should be resolved in favour of the national interest.

A failure to provide residential land in response to growing demand contributes to a shortage of housing, causing a range of invidious social and economic harms that hurt the wellbeing of individuals, families, communities and the nation. Councils in our largest and fastest-growing cities should be given every opportunity to accommodate their rising populations, but where they cannot, government should commit to managing land price inflation by establishing a transparent process to ensure that residential land supply is responsive to demand. This report sets out a mechanism to do this.

1 About this inquiry

Key points

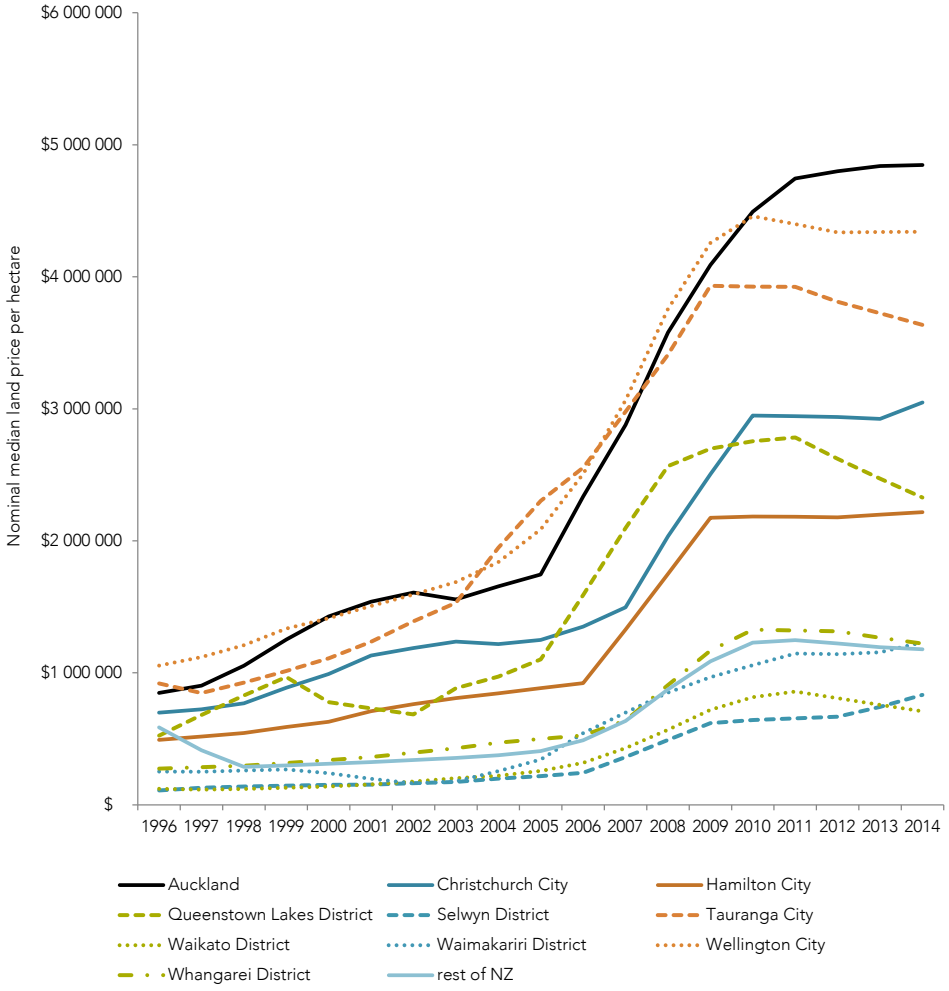
- Housing is a basic human need and fundamental to our economic and social wellbeing. Access to housing plays a central role in individual and community health, family stability and social cohesion, in the mobility and responsiveness of the labour market, and in productivity and economic development. Providing an adequate supply of land and development capacity for housing, across a range of housing choices, has the potential to lift the living standards of New Zealanders.
- New Zealand's population is growing. This growth is concentrated in a handful of cities, but especially in Auckland. The number of dwellings required to house the population of these cities will grow at an even greater rate because of demographic trends towards smaller households. Housing supply has struggled to keep pace with increasing demand. This has manifested itself in the price of houses, and the cost of housing, rising.
- Planning systems and land regulations imposed by central, regional and local governments affect the speed and efficiency with which land is made available for housing, including through more intensive use of land within existing city boundaries. Constraints on the release of new residential land and restrictions on the more intensive use of existing residential land create scarcity, have the effect of limiting housing choice and increasing house prices.
- The Government has asked the Commission to review the local planning and development systems across New Zealand's faster-growing urban areas and identify leading practices that are effective in making enough land available to meet housing demand. Recommendations to improve performance of the land supply and development system are sought in four main areas:
  - policies, strategies, processes and outcomes for urban land supply, including the provision of infrastructure;
  - funding and governance of water and transport infrastructure;
  - governance, transparency and accountability of the planning system; and
  - involvement and engagement with the community.
- Unlocking land for housing is a critical first step and catalyst for productivity improvements in the other parts of the housing supply pipeline by allowing scale economies in land assembly, land development and housing construction. Evidence points to potentially significant reductions in the cost of housing and wider economic benefits from lifting barriers and constraints to urban growth.
- This inquiry explores the institutions, processes, policies and mechanisms used by local and central governments, here and overseas, to respond to increasing population growth and demand for housing. It looks at ways to expedite the release and development of land for housing, and the obstacles that get in the way.
- Understanding the underling incentives driving participants in the land supply and development system is critical to informing policy responses that will be effective in shifting the behaviour of landowners, exisiting homeowners, infrastructure providers and local government to be more accommodating of demand for land for housing.

1.1 Introduction

New Zealand's population is growing. This growth is concentrated in a handful of cities, but especially in Auckland. Housing supply has been sluggish in responding to population growth and struggled to keep pace with demand. This has manifested itself in the escalating price of housing.

A number of factors affect the supply of housing, but one of the most important is the availability of land. Section prices have grown more quickly than house prices over the last 20 years (Figure 1.1). This suggests a shortage of residential land in places where people want to live. The problem is particularly acute in Auckland, where land value accounts for almost 60% of total property value. However, in many high growth councils land is approaching 50% of total property value, compared with about 45% in the rest of New Zealand.

Figure 1.1 Nominal median land values



Source: Productivity Commission analysis of Quotable Value data.

The Commission's report on *Housing affordability* (2012a) identified constraints in the land supply and development system as a key cause of escalating housing prices and declining affordability. Planning systems and land regulations imposed by central, regional and local governments affect the speed and efficiency with which land is made available for housing, including more intensive use of land within existing built-up areas. Important decisions about the amount of land to be released, the timing of when this will happen, how the land can be developed, and when the land will be serviced with infrastructure, all impact on the cost of housing directly or indirectly. Constraints on the release of land and development capacity, both within and on the edge of cities, creates scarcity, limits housing choice, and increases dwelling prices. These impacts are disproportionately felt by low-income groups.

1.2 What the Commission has been asked to do

The Government has asked the Productivity Commission to undertake an inquiry into the supply of land and development capacity for housing in New Zealand.

The inquiry's Terms of Reference asks the Commission to review local authorities' land use regulation and planning and development systems (Box 1.1) to ensure the supply of development capacity is adequate to "enable the timely delivery of housing of the type, location and quality demanded by purchasers". In short, this is an inquiry about how councils supply zoned and serviced 'shovel-ready' land to meet demand.

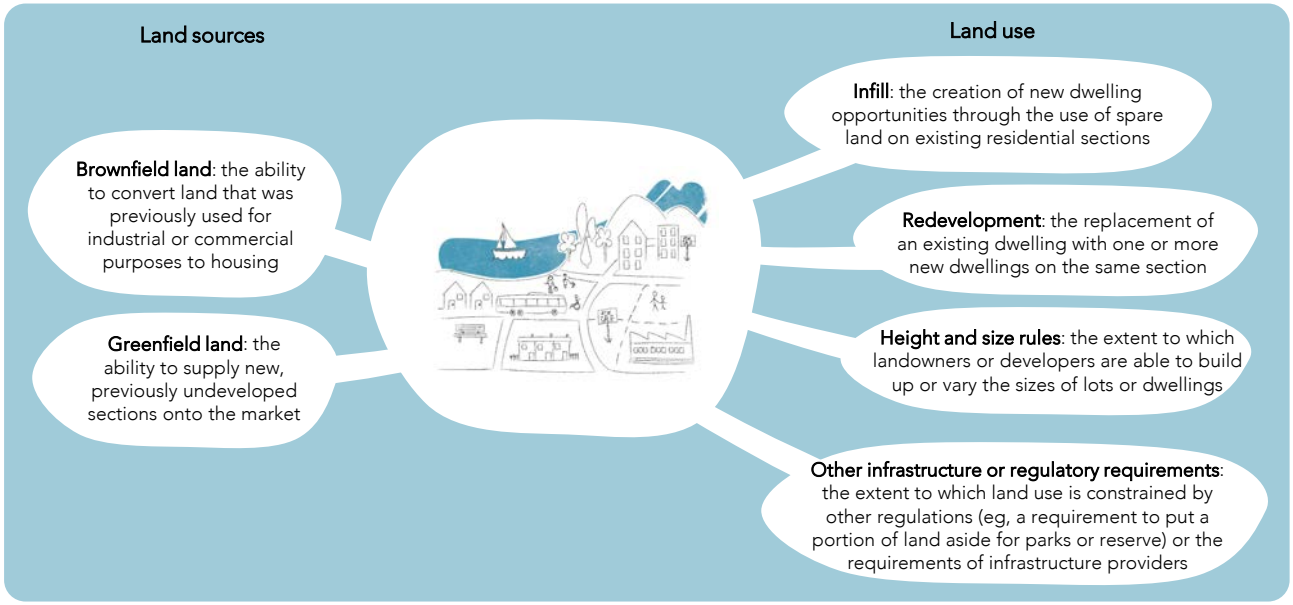
Box 1.1 **Local planning and development systems**

For the purposes of this inquiry, the Commission has defined "local planning and development systems" to include:

- the legislative frameworks governing land use, the planning and funding of transport infrastructure and services, and the planning and funding of infrastructure needed to make land viable for housing (the Resource Management Act 1991, the Land Transport Management Act 2003 and the Local Government Act 2002) – these frameworks are described in Chapter 2;
- the institutions, plans, policies, rules and pricing regimes that local authorities use to give effect to these legislative frameworks; and
- the internal processes that local authorities use to carry out their responsibilities, rules and policies.

A number of factors contribute to the supply of development capacity (Figure 1.2).

Figure 1.2 What contributes to the supply of development capacity?



This reflects the Commission's findings in its *Housing affordability* inquiry that both greenfield and brownfield land are necessary and that increased density, especially near key city nodes, is an integral part of accommodating population growth and meeting diverse demand (NZPC, 2012a). It also reflects the conclusions of scholars such as Bertaud, who argue that the "amount of floor space that can be built on a unit of land is…a crucial variable" for the fair and effective functioning of cities (2014a, p. 5).

The Government has asked the Commission to make recommendations on improving the performance of the land supply and development system in four main areas:

- policies, strategies, processes and outcomes for urban land supply, including the provision of infrastructure;
- funding and governance of water and transport infrastructure;
- governance, transparency and accountability of the planning system; and
- involvement and engagement with the community.

The inquiry's Terms of Reference also asks the Commission to identify any early lessons from recent initiatives such as the introduction of Housing Accords and Special Housing Areas (a policy that aims to expedite housing supply in specific high-growth areas).

1.3 What this inquiry is not about

A number of issues are outside the scope of this inquiry. In particular, this inquiry:

- does not review the fundamental role or purpose of the Resource Management Act 1991;
- does not include the Building Act 2004 or related processes governing the assessment and processing of building consent applications; and
- does not consider changes to the ownership of local authority infrastructure assets, but does include the funding and governance of those assets (eg, the implications of whether or not assets are held by a legally separate, but wholly owned entity).

1.4 Why this inquiry is important

Housing is a basic human need and fundamental to our economic and social wellbeing. Access to housing plays a central role in individual and community health, family stability and social cohesion, in the mobility and responsiveness of the labour market, and in lifting productivity and economic growth. Providing an adequate supply of land and development capacity for housing, and the associated improvement in housing affordability, has the potential to lift the living standards of many New Zealanders.

Unlocking land for housing is a necessary first step and catalyst for productivity improvements in the other parts of the housing supply pipeline by allowing economies in land assembly, land development and housing construction. Larger building firms are able to generate scale efficiency from building large numbers of houses on the same site and purchasing at a greater scale, particularly building materials. Yet the building industry in New Zealand is characterised by small firms that build just one or two houses a year. This pushes up new house prices, because small firms are unable to generate economies of scale. The current industry structure is a product of the environment in which it operates, which is characterised by fragmented and expensive land supply (NZPC, 2012a).

A recent report by the McKinsey Global Institute concludes that "unlocking land supply at the right location is the most critical step in providing affordable housing" (2014, p. 7). The report estimates that unlocking land supply could reduce the annualised cost of a standard unit of housing by between 8% and 23%. Remarkably, in the world's least affordable cities (including Auckland), unlocking land supply could reduce the cost of housing by between 31% and 47%. Further, the report says that productivity improvements in construction, by taking advantages of scale or taking an industrial approach to construction, could reduce the cost of housing by between a further 12% and 16%.

Local regulatory constraints to releasing land and development capacity for housing have national and economy-wide impacts. Overseas research suggests that constraints on the supply of housing in high-wage cities can price out workers who would be more productive if they could move to take up the opportunities available. Lifting barriers to urban growth by releasing land and development capacity in these cities would increase a country's Gross Domestic Product (GDP). Quantifying the size of the prize is difficult, but it is could be significant. One US study (Hsieh & Moretti, 2015) estimates that lowering regulatory constraints on land supply in three high-productivity US cities – New York, San Francisco and San Jose – to that of the median level of restrictiveness in the United States would increase GDP by 9.5%. A productivity bonus

anywhere near this level would be of major significance to the New Zealand economy. Indeed, it is difficult to think of many other policies that would yield such an improvement in the nation's economy.

1.5 Approach to the inquiry

This inquiry investigates and seeks improvements to the effectiveness and efficiency of the planning and development system in New Zealand. How efficiently does the system meet the demand for land in its most valued use, and supply infrastructure to it? And does it do so in a way that is responsive to demand? Can the current system be made to work better for New Zealanders, or is a different framework required to align incentives in our fastest-growing cities for the timely release of land that is zoned for housing and serviced with infrastructure?

The land supply and development system is complex. It includes land zoning and planning institutions' policies and processes; rules and regulations; approval processes; infrastructure planning, delivery and funding; and governance arrangements. A diverse range of participants operate within this system, each with their own objectives, incentives and behaviours. This includes local government politicians, council planners, developers, infrastructure providers, landowners, homeowners, and central government agencies. This inquiry investigates the underling incentives driving participants in the land supply and development system by identifying instances where these incentives diverge and conflict, and asking how they can be better aligned and shaped to encourage the release and development of land for housing.

A number of criteria are used to help evaluate how the planning and development system is performing and the potential areas for improvement. A well-performing land supply and development system exhibits the following features:

- the supply of land is responsive to market demand (for all potential uses of land, including commercial and industrial uses) delivering housing of the type, location and quality demanded by purchasers;
- the incentives on various actors in the system (eg, existing homeowners, landowners, councils, developers and infrastructure providers) are aligned so as to make available a sufficient quantity of land for housing and to use land efficiently;
- the objectives of land use planning are clear, and any restrictions on choice are the minimum necessary to achieve those objectives;
- the whole planning and development system is sufficiently coordinated and integrated to overcome any coordination failures and to ensure that infrastructure and development are aligned;
- the planning and development system has good governance arrangements, where decisions are made at the right level, strong accountability frameworks are in place and decision review mechanisms are appropriate;
- the governance, funding and pricing mechanisms allow sufficient land to be serviced with infrastructure, at the right time and in the right place;
- land planning and development policies and decisions are transparent and are rationally informed by evidence about their effects; and
- the planning and development system appropriately balances the broad interests of the community and the country as a whole in the supply of land and development capacity.

The approach to the inquiry set out above provides a strong basis for making system improvements through enhanced processes, leading practices and system change. There are a number of incremental improvements that would improve the supply of land for housing, but overcoming the more intractable barriers will require more fundamental change.

A focus on high-growth cities

The inquiry's Terms of Reference asks the Commission to "review practices of the larger urban planning and development systems, including but not limited to the authorities of the largest and/or fastest-growing urban areas".

Population growth has been unequally distributed across the country, largely as a result of internal migration patterns and the regional preferences of international migrants. Some regions have consistently experienced positive net internal migration, while others have generally experienced net outflows. Demographic change, such as population ageing, cultural and ethnic diversification and a continuing transformation in family structures, have also been a feature of recent years and have tended to segment the housing market (NZPC, 2012a). Looking to the future, net household formation in New Zealand is expected to continue to increase even faster than the population continues to grow, as households become smaller. More land and development capacity for housing will be needed, to provide a range of dwelling sizes and typologies.

The focus of this inquiry is on the 10 territorial authorities that have seen the largest population increase between 2001 and 2013, and their associated regional councils (Table 1.1). Together, these 10 territorial authorities made up about 78% of New Zealand's population growth between 2001 and 2013.

Table 1.1 Territorial authorities that the Commission studied

Territorial authority	
Auckland Council*	Tauranga City Council*
Christchurch City Council*	Waikato District Council
Hamilton City Council*	Waimakariri District Council*
Queenstown Lakes District Council*	Wellington City Council*
Selwyn District Council*	Whangarei District Council

Regional council	
Bay of Plenty Regional Council	Northland Regional Council
Environment Canterbury Regional Council	Otago Regional Council
Greater Wellington Regional Council	Waikato Regional Council

* indicates that the territorial authority has been designated as an area experiencing significant housing supply or affordability issues by being listed in Schedule 1 of the Housing Accords and Special Housing Areas Act 2013.

Yet the lessons in this report also apply to other growing territorial authorities, especially those with relatively unaffordable local housing markets.

Auckland and the rest

Auckland is both New Zealand's largest and most expensive city (in terms of housing costs relative to incomes). Auckland is also growing rapidly, and by the year 2031 is expected to be home to about 2 million people, or nearly 40% of New Zealand's population. Recent debate on the performance of the housing market has focused primarily on Auckland, as this is where supply constraints and associated house price increases have been most dramatic, and on Canterbury as it rebuilds.

Notably, of the territorial authorities that experienced population growth from 2001 to 2013, almost half of that growth was in Auckland – more than the next 28 fastest-growing territorial authorities combined. Auckland is also expected to have the highest growth rate in household formation.

So how many extra dwellings does Auckland need? There are various estimates both of the size of the dwelling shortfall in Auckland, and of the number of additional dwellings that will be required to meet new demand.

- Auckland Council estimated in December 2012 that the city had an existing shortage of 20 000 to 30 000 dwellings, and would require a further 13 000 dwellings each year to keep up with new demand.
- In 2014, the Ministry of Business, Innovation and Employment reported that Auckland had a shortfall of about 18 000 dwellings. This model estimates the unmet demand to form new households, by combining population estimates with projections of household occupancy, and accounting for additions to the dwelling stock.
- BNZ Chief Economist Tony Alexander has estimated that Auckland would require 76 000 extra dwellings to reduce its current occupancy rates to the level in the rest of New Zealand.
- Westpac Industry Economist David Norman says that Auckland should build 10 800 dwellings each year for the next 8 years, on the basis that it is a realistic target that will reduce the number of people living in each dwelling, while avoiding overbuilding.

Estimates of what the shortfall will be in the future are highly susceptible to the underlying projections of population growth (both natural and as the result of internal or external migration), household size, and family income. The effect of a housing shortage shows up in persistently high overcrowding in Auckland (see Chapter 3). It also shows up in higher average household size across Auckland. Some of this will reflect differences in family type between Auckland and other regions, but some will reflect households that are waiting to form because they lack affordable accommodation. As a whole, communities can show considerable flexibility in managing a shortage of housing, but it comes at a cost and is unlikely to be sustainable over a long period of time.

Additionally, income growth leads to demand pressures, and low interest rates increase the 'borrowing capacity' of households and are a key source of increased effective demand for housing. But these factors are not typically included in forecasts of housing demand.

The current planning system in New Zealand allocates land, and services it with infrastructure, largely independent of market conditions and demand. The system is essentially "time driven". This approach rations or allocates land, at predetermined intervals, based on assumptions about how much land will be required (using forecasts of population and household growth) rather than market signals about how much land is demanded or what the best use of land is.

Given this system for allocating residential land, the kind of price pressures seen in Auckland would be experienced by other territorial authorities if they were faced with a similar scale of population growth and demand. Indeed, there are indications that the land supply and development system is coming under pressure in many other parts of New Zealand. Although recent price growth in other regions has been subdued in comparison to Auckland, median house prices as a ratio of median incomes are high across New Zealand and especially in cities. The Housing Accords and Special Housing Areas Act 2013 lists, in Schedule 1, those territorial authorities that are designated as areas experiencing significant housing supply issues or affordability issues. Broad mismatches exist between the supply of, and demand for, different types of housing. In particular, the country currently lacks lower-priced new dwellings (MBIE, 2014a; NZPC, 2012a).

Christchurch is a special case worth noting. Destruction of housing stock after the earthquakes created a shock shortage of adequate housing. That said, it is notable that the Canterbury rebuild appears to be on track to provide a sufficient supply of housing to meet demand in the near future. This illustrates what a resolute and coordinated effort to increase the supply of dwellings in cities in response to demand for new housing can achieve. It also reflects the important role that neighbouring territorial authorities played in providing a competitive supply of ready-to-build land.

Gathering evidence

The Commission's draft findings and recommendations have been informed by a comprehensive engagement process. The inquiry received 136 submissions from a diverse range of interested parties. At the same time, 115 engagement meetings were undertaken with interested parties (offering a range of perspectives) on the performance of the land supply and development system and how to improve it. Participants included councils, developers, building companies, infrastructure providers, planners, central

government agencies, and housing academics (see Appendix A for a list of submission and engagement meetings).

The Terms of Reference asks the Commission to review practices of comparable overseas regimes and urban planning and development regimes and to identify lessons. In addition to desk-top research investigating overseas planning and development practices, a study tour of Australian states was undertaken. This included visits to Melbourne, Sydney and Brisbane, for meetings with relevant planning and development agencies, city councils (Brisbane/Melbourne), developers/builders, property councils, the Reserve Bank of Australia, and leading urban planning academics and experts (including the former Chair of the National Housing Supply Council).

Staff participated in a study tour of the United Kingdom (London and Manchester) organised by the New Zealand Council for Infrastructure Development and UK Trade & Investment. The aim of the study tour was to identify best practice planning, funding and delivery of infrastructure. It included sessions on urban regeneration, affordable housing, planning systems, and transport infrastructure (planning, governance and funding). Strong themes from the UK visit included the value of local and central government working together to provide certainty to investors and developers, and the importance of sophisticated infrastructure planning and delivery.

The Commission engaged the New Zealand Institute of Economic Research (NZIER) to survey the 10 high-growth local authorities to get a sense of the comparative stringency of land use regulation in New Zealand. Using a well-established survey methodology, the results were converted into an index that follows the Wharton Residential Land Use Regulatory Index methodology developed by Gyourko, Saiz & Summers (2008). This index helped to provide an initial overall picture of both the level of stringency in urban land use planning and development in New Zealand high-growth councils and some of the underlying influences and drivers.

Finally, the large volume of literature on the economics of urbanisation, economic geography, and urban planning and infrastructure was examined.

Together, this evidence has provided a rich picture of the land supply and development system in New Zealand, the barriers and blockages in this system and the key areas for improvement.

1.6 Guide to the report

This inquiry explores the institutions, processes, policies and mechanisms used by local and central governments, here and overseas, to respond to growth and expedite the release and development of land for housing, and the obstacles that get in the way.

Chapter 2 provides a short history of urban planning and infrastructure provision. It outlines the current planning and development system in New Zealand, and the unique relationship between local and central government in regard to decision making, roles, functions and powers.

Chapter 3 discusses the benefits that large cities can bring to their residents and to the country; the reasons why cities grow and the impacts of that growth on local residents and the nation; the drivers of the demand for housing and land in cities, and in turn of land and housing prices; how and why the planning framework fails to meet demand; and the impacts of restricted land supply.

Chapter 4 discusses some of the forces that influence the attitudes and actions of landowners, existing residents and councils towards the supply of new housing and land for housing. It also considers options to align their incentives to encourage the release and development of land for housing.

Chapter 5 investigates the extent that land use regulations enable or inhibit the ability of New Zealand cities to provide more housing by 'building out' or 'building up', looks at some underlying causes of those restrictions, and proposes some responses.

Chapter 6 considers the process of rezoning land for housing in fast-growing New Zealand areas and barriers to the prompt approval of new developments.

Chapter 7 assesses planning policies aimed at encouraging a greater supply of lower-priced housing, and discusses the use of public land as a tool to encourage more supply.

Chapter 8 examines the infrastructure requirements and costs associated with new growth and processes that councils use to plan the roll-out of new infrastructure. How councils manage and make use of existing infrastructure assets is also examined.

Chapter 9 examines how councils currently pay for infrastructure and what alternatives are available.

Chapter 10 examines the governance arrangements for transport and water infrastructure.

Chapter 11 examines barriers to integrated planning created by the current planning and development system, makes the case for a deeper review of the planning framework, and outlines some desirable features of a future planning system.

Finally, Chapter 12 considers whether new institutions might have a role in coordinating the release and development of land for housing, how government can support cities to achieve their objectives for their urban form, and what mechanisms could ensure there is sufficient land capacity to meet housing demand where councils are unable to provide it.

2 The planning and development system

Key points

- New Zealand's planning and development system has evolved over time, in response to:
  - changing views about the role and capabilities of local authorities;
  - rising expectations of community participation in planning decisions;
  - an increasing weight placed on environmental protection; and
  - expansions in the perceived role, scope and impact of planning.
- Responsibility for land use regulation, planning and the provision of infrastructure (with the exception of main highways) has been progressively devolved to local government, and formal rights for the public to be consulted and/or object to land use rules or proposed developments have expanded.
- Despite repeated changes to the underlying legislation, there have been longstanding concerns over successive regimes about constraints placed by the planning system on development.
- The current planning and development framework is based on three main statutes – the Resource Management Act 1991, the Local Government Act 2002 and the Land Transport Management Act 2003.
- New Zealand's constitutional and institutional arrangements give particular discretion and autonomy to local authorities in regulating land use and providing infrastructure. In comparison to state or national governments in other developed countries, central government in New Zealand plays a limited role in urban policy, regulation and the provision of infrastructure. As a result, any misalignment of incentives between local and national interests may be more pronounced in New Zealand than in other countries.

2.1 Introduction

New Zealand's planning and development system has been shaped by the country's cultural links to other settler societies and Britain, changing views about the role and capability of local authorities, rising expectations of community participation in planning decisions, an increasing weight placed on environmental protection, and changing philosophies about the role of planning in promoting community wellbeing.

To understand the current nature and performance of the planning system, it is important to understand how it has evolved over time. This chapter provides a brief history of the development of New Zealand's planning system, describes its current state, and assesses the relative roles of central and local government.

2.2 A brief history of urban planning and infrastructure provision

Early days

Town planning in the early days of New Zealand's colonisation was the result of private corporations' initiatives, commercial imperatives, and legislative measures taken by the emerging provincial and central governments.

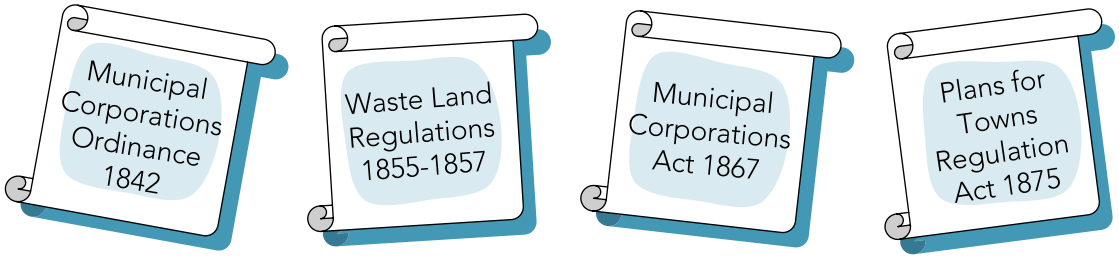
New Zealand's first colonial towns were founded by the New Zealand Company, with the company's planners and surveyors drawing up the plans. The plans of other towns – such as Russell (New Zealand's intended capital city) and Auckland – were drawn up by government officers. Barry-Martin argued in 1956

that, despite these efforts, the realities of settler life and short-term commercial imperatives in the early days of the colony contributed to a "haphazard square-grid town development which continued well into the 20th century, and quickly provided complex town planning problems in the cities" (p. 2). Those problems included regional imbalances, sprawling and ill-served suburbs, confused main traffic and food supply routes, and "a general shabbiness" (Barry-Martin, 1956, p. 2).

These issues prompted the introduction of legislation regulating land use. New Zealand's early local body legislation drew on English and Australian examples. Legislation enacted by provincial governments, and later central government, imposed rules about the layout of towns and empowered local councils to plan and regulate building. The Municipal Corporations Ordinance of 1842, for example, provided for local government of urban areas and gave local authorities power to, among other things, make and repair roads, water works, and sewers. Provincial regulations controlling the sale and disposal of land over time reflected a growing awareness that the essential needs of urban settlements had to be deliberately provided for. The Waste Land Regulations adopted by the different provinces between 1855 and 1857 contained measures for the provision of reserves, control of subdivision and noxious industry, and reservation of land for public purposes. By 1866 all local authorities had some form of municipal corporation Acts. In 1867 the central government passed the Municipal Corporations Act, which covered matters such as the width and protection of streets, sewerage, lighting, water supply, markets, community buildings and reserves.

The first town planning legislation came in the form of the Plans for Towns Regulation Act 1875. It was limited and restricted in application, concerned with the laying out of towns, controlling the width and layout of new streets (99 feet wide and plotted at right angles as far as practicable), and providing for reserves, rubbish disposal areas, and gravel pits. Territorial councils were empowered to make bylaws to regulate building and to promote public health and safety (Figure 2.1).

Figure 2.1 Early legislation and regulations



The public health movement, driven by local boards of health, was behind many of these changes. High rates of disease and death were caused by household waste and cesspits polluting streams and drinking water and encouraging vermin. Cities started exercising powers to ban cesspits, organise the collection of night-soil (human waste) and construct water and sewerage networks. The improvement in public health highlighted how planning and intervention could raise the quality of city life (Schrader, 2012a).

The abolition of provincial governments in 1876 saw major public works handed over to the Public Works Department, which had been earlier set up to administer the money for public works borrowed by Premier Julius Vogel. By the early 1890s the Public Works Department had evolved from a planning and supervisory body into the country's foremost construction agency. In the first decades of the 20th century, the Department designed and built major roads, paid for by central government and handed over to local bodies for maintenance. District roads were built by local bodies and financed by rates and occasional government grants. Yet few local bodies could fulfil their obligations to maintain roads due to insufficient technical skill and a shortage of finance. Main highways came under the control of central government in 1922. With the advent of the motor car, the Public Works Department took charge of the construction of roads to open land for housing (Noonan, 1975).

The town planning movement – improving human behaviour by controlling the physical environment

During the early 1900s there was widespread public debate about town planning. Various planning schemes were mooted and proposed, drawing to varying degrees on the US, English, and Australian planning systems. The increased public and official desire to manage the built environment in New Zealand was

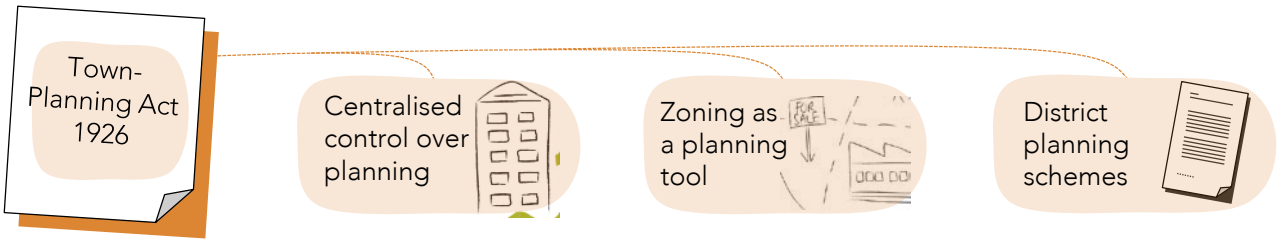
motivated by the desire to raise amenity, remove unsightly areas and control social problems such as "larrikinism" (Perkins et al., 1993, p. 18). Conditions in some inner-city residential districts were reported as "slum-like". A 1903 survey of 300 inner-city Wellington houses found more than half were in an unsatisfactory state – "damp, dilapidated … [and] infested with vermin" and one-fifth were too overcrowded (Schrader, 2012a, p. 2).

The 'City Beautiful' and 'Garden City' movements, international trends at the turn of the 20th century, also influenced thinking in New Zealand. The Garden City movement arose in Britain in the 1890s in response to the squalid conditions in industrial cities, and ascribed to 'environmentalism' – the idea that human behaviour was shaped by the physical environment. Well-designed surroundings would, it was believed, materially improve both the quality of life of individuals and public life (Schrader, 2012a). Charles Reade was a prominent figure in the movement in New Zealand. He twice toured New Zealand and Australia talking about how slums were affecting city life and calling for town planning, the main purpose of which, he said, was the creation of healthy towns through practices such as land-use zoning, lower housing densities, and different street widths. A government-sponsored town-planning conference was held in Wellington in May 1919. Minister of Internal Affairs George Russell said it aimed to "avoid the mistakes of the mother-country [Britain] where slums created an environment where a healthy race cannot be reared" (Schrader, 2012b, p. 3).

Town-Planning Act 1926 – more central control, but little implementation

The Town-Planning Act 1926 enacted the first comprehensive power to regulate and limit the use of land for a particular activity (Figure 2.2). A feature of the Act was centralised control over planning. Local authorities were accorded power to prepare planning schemes, but central government retained ultimate authority to approve the schemes and consider requests for subsequent changes. Originally under the Department of Internal Affairs, the administration of the Act was transferred to the Ministry of Works in 1946 to ensure proper infrastructure planning (Noonan, 1975). The Act created a Town-Planning Board whose functions were to make all inquiries and consents necessary for the purpose of the Act. The establishment of a Town-Planning Board reflected the government's view that local government lacked the appropriate political and technical capability to undertake these new functions (Perkins et al., 1993).

Figure 2.2 Town-Planning Act 1926



The Act made a significant step towards comprehensive planning by introducing zoning as a planning tool. It required town and extra-urban planning schemes to define "areas to be used exclusively or principally for specified purposes or classes of purpose" (clause 7 of the Schedule to the Act). The concept of zoning was new to New Zealand, but had been used since the 19th century in the United States to separate urban residential land uses from noxious industrial activity (Perkins et al., 1993). In the United Kingdom the need for zoning had become apparent in the rapidly growing industrial towns and cities of the North and Midlands. New Zealand's industrial development was less extensive and so similar problems were much slower to present themselves. However, by 1926 it had become clear that, particularly in the larger cities, planned development required zoning provisions (Robinson, 1981).

The Act required borough and city councils with a population of 1 000 or more people to prepare planning schemes for the district. Although the Act delegated to local authorities the power to prepare planning schemes, central government (through the Town-Planning Board) retained ultimate authority to approve the schemes and consider requests for subsequent changes. Commentators have described the 1926 Act as sound in concept but ineffective in practice (Robinson, 1981; Perkins et al., 1993; Barry-Martin, 1956). Despite the Act requiring councils to prepare planning schemes, councils failed to prepare them and central governments were unwilling and unable to force councils to do so. By 1953 only one small city and

12 boroughs (most with populations under 1 000) had schemes finally approved, while two other cities, 11 boroughs and 2 town districts had schemes provisionally approved (Barry-Martin, 1956).

The 'Betterment Fund' was another key aspect of the 1926 Act that failed in practice. The intention was that each local authority should have a fund from which it could meet compensation claims and other expenses incurred under the Act. The fund would come from payments to councils of one half of the 'betterment increase' (defined as the increase in the value of any rateable property as is attributable to the approval of a town planning or an extra-urban planning scheme, or to the carrying out of any work authorised by the scheme). But no betterment was ever collected, apparently due to difficulties of calculation and collection; and the concept of a Betterment Fund was omitted from subsequent legislation.

Town and Country Planning Act 1953 – a shift back to local authorities

The Government's intention with the Town and Country Planning Act 1953 (Figure 2.3) was to encourage town and regional planning by transferring to local authorities the powers previously vested in the Town-Planning Board, which was abolished.

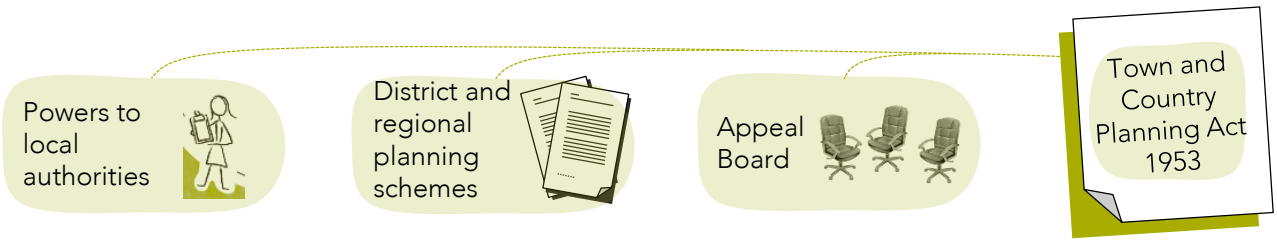
The Act required every city, borough, and town board to provide and maintain a district planning scheme. Each planning authority was responsible for the preparation and approval of its planning scheme (powers previously exercised by the Town-Planning Board). Yet central government was still significantly involved, as each council had to submit its prepared scheme to the Minister of Works for checking.[2]

The purpose of district schemes was the "development of the area … in such a way as will most effectively tend to promote and safeguard the health, safety and convenience, and the economic and general welfare of its inhabitants and the amenities of every part of the area" (s. 18).

The Act also instituted regional schemes. Regional schemes were intended to further the conservation and economic development of a region and the coordination of public improvement, services, and amenities that were not limited by the boundaries of any one local authority. The stated purposes of district and regional schemes were potentially far-reaching – concerning not just the essential amenities and services and physical environment of urban areas, but also the welfare of their inhabitants.

A new authority called the Town and Country Planning Appeal Board was empowered to deal with appeals of council decisions. The Board was a quasi-judicial appellate body chaired by an appointed judge. It came to exert wide-ranging influence on planning practice in New Zealand (Perkins et al., 1993).

Figure 2.3 Town and Country Planning Act 1953



The provision of services and amenities under regional schemes was severely hampered by skill shortages in the country after the Second World War. The Commissioner of Works in 1958 said that there were "clear indications that rather more work was undertaken by both local authorities and Central Government than could be carried out in an entirely satisfactory manner" (quoted in Noonan, 1975, p. 207). This work included a massive state housing programme undertaken by the Ministry of Works that began in 1935.[3]

While the housing programme suffered from a shortage of finance, central government had a steady income stream from roading (Noonan, 1975). The National Roads Board Act 1953 allowed for automatic payment into the National Roads Fund of motor-spirit tax, heavy traffic fees, tyre duty and a yearly payment from the

[2] A 1973 amendment to the Act also introduced central government policy directives in the form of "matters of national importance". These were matters that all schemes had to recognise. The matters focused on avoiding encroachment of urban development on land having a high, actual, or potential value for production of food, and the prevention of sporadic urban subdivision.

[3] Housing accounted for 47.7% of the Ministry's expenditure in 1950/51.

Consolidated Fund. The Ministry of Works serviced the activities of the Board, designed all state highways and was responsible for the construction, maintenance and overall administration of main highways under the control of local bodies (Noonan, 1975).

The Town and Country Planning Act 1977 – a mix of English and US approaches

In 1970 a committee (the Town and Country Planning Review Committee) was appointed to review the Town and Country Planning Act 1953. Its deliberations and report, published in 1973, led to the enactment of the Town and Country Planning Act 1977 (Figure 2.4).

In introducing the Bill into the House, the Minister of Works and Development said that the Bill promoted a closer relationship and communication between national, regional, and local planning and provided wide-ranging opportunities for the public to take part in the planning process. The Minister also acknowledged "present concern for the protection of the environment", and noted that the Bill gave more emphasis to environmental considerations (Hearn, 1987, p. 15).

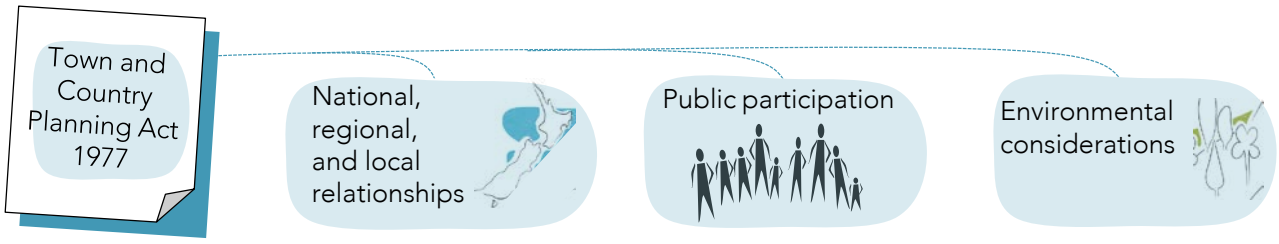
Robinson (1981) argues that the Act incorporated aspects of planning philosophy and practice from both the United Kingdom and the United States. The English and US planning schemes of the time differed in three key respects: the English system was characterised by its centralised control, administrative review, and discretionary powers, while the American system was marked by local autonomy, judicial review, and rigid regulation (Robinson, 1981). The 1977 Act incorporated aspects of each, with centralised control over local action through the Minister's approval of regional schemes and provision for public works, and tempering land use zoning with flexibility, through the review of local decisions by Planning Tribunals.

Around the same time, the Local Government Act 1974 set out the structures and purpose of local government for planning and the provision of infrastructure nationwide (NZCID, 2015a).

Increased community participation from the 1970s

The 1970s saw a trend towards greater community participation in local affairs. The Local Government Act 1974 introduced community councils, which could represent local opinion and encourage and coordinate activities for the general wellbeing of local residents. This increased emphasis on community participation was evident also in the Town and Country Planning Act 1977. The 1977 Act expanded objection rights, so that a person or body affected, or any body or person representing some relevant aspect of the public interest, could object to a scheme or planning application. In comparison, under the 1953 Act only individual landowners directly affected had the right to object. The 1977 Act also introduced public consultation, by enabling submissions to be made on draft schemes. In addition to these general provisions encouraging greater community participation, the Act directed local government to take into account "the relationship of Maori people and their culture and traditions with their ancestral land" (s3(1)(g).

Figure 2.4 Town and Country Planning Act 1977



The focus and style of planning changed during this time. Local authorities became focused on managing the urban environment and its issues, such as employment, housing renewal, access to services, and environmental hazards. These issues are inherently political and value-based. Increased community participation rights had also served to make planning more overtly political. Perkins et al. (1993) argue that, from this time, planning conflicts were brought into the open forum of local government politics.

Review in the 1980s

In 1986 Antony Hearn QC was appointed to review New Zealand's town and country planning legislation. The review was initiated for a number of reasons, some of which appear to have been longstanding issues of concern to central government:

> Other criticisms of the current planning process are the subject of specific items in my terms of reference; that is to say the desirability of greater flexibility and speed of decision making, the widespread perception that the [1977] Act acts as a restraint on much worthwhile development, the problem of multiple consents and the lack of integration in resource management statutes.
>
> Further relevant matters in submissions made to me cover a wide variety of topics such as the role of the Crown; the role of the Planning Tribunal; the process being too legalistic; rights of public participation being too narrow or too wide; the need for environmental protection; the failure to adequately recognise the significance of trees, historic buildings and such matters.
>
> In reviewing the circumstances which gave rise to the reforms of the 1953 Town and Country Planning Act, said to be contained in the 1977 Act I am struck by the number of criticisms of the 1953 Act which are now being repeated in respect of the 1977 Act. (Hearn, 1987, p. 22)

Hearn's review of the 1977 Act recommended many changes to existing legislation to address the identified issues. It sparked the genesis of the Resource Management Law Reform process which resulted in the passing of the Resource Management Act 1991 (RMA).

The Resource Management Act 1991 – a radical restructure in favour of the environment

The RMA radically restructured New Zealand's planning system. The predominantly English-style town and country planning scheme was repealed and replaced with a very different form of statutory environmental planning and management. The Act attempted to do away with zoning. It established in its place an environmental effects-based system, elaborated locally in a District Plan. Any land use or activity could be permitted so long as it did not undermine the sustainable management of natural and physical resources. The Act also contained extensive public consultation and participation requirements. Interested people could make submissions on proposed Plans or Plan changes and on resource consent applications, be heard at council hearings concerning plans and consents, and appeal certain matters to the Environment Court. Councils had to consult with specified people and groups when making plans and policy statements.

One of the Act's distinguishing features is its limited focus on urban and social planning (Perkins & Thorns, 2001; Memon & Gleeson, 1995; Perkins et al., 1993). The RMA's heavy emphasis on the biophysical environment was criticised by commentators at the time of its enactment as creating potential difficulties for urban social and economic planning.

> The statute represented compromise between the various actors involved, namely central and local government, property developers, environmentalists, local communities, and planners. Tensions therefore arose quite early in the implementation process as the divergent agendas became reflected in the district plan formation and objection process. (Perkins & Thorns, 2001, p. 652)

The Act has been successively amended since its inception. Hearn's comment in 1987 that he was "struck by the number of criticisms of the 1953 Act which are now being repeated in respect of the 1977 Act" are also being revisited in current commentary on the RMA. Of particular relevance to this inquiry is the speed and flexibility with which the planning system can respond to the demand for new housing and whether undue constraints are placed on housing development. Indeed, matters raised in submissions to the review of the 1977 Town and Country Planning Act, such as the role of the Crown; rights of public participation being too narrow or too wide; the need for environmental protection; the failure to adequately recognise the significance of historic buildings and such matters, have also been found in submissions to this inquiry.

Local Government Act 2002 – local decision making and a broader role for planning

While the RMA confirmed the role of local government as the main regulator of land use, the Local Government Act 2002 (LGA) replaced the previously prescriptive Local Government Act 1974 with a statute giving local government a wide-ranging and aspirational purpose to:

- enable democratic local decision making and action by and on behalf of communities; and
- promote the social, economic, environmental and cultural wellbeing of communities, in the present and for the future.

The Act required local authorities to "play a broad role in promoting the social, economic and environmental and cultural well-being of their communities, taking a sustainable development approach" (Part 1 3(d), now repealed). Prevalent beliefs about the role, scope and impact of urban planning fitted well with the ideals of the 2002 Act and, despite changes to the Act (most notably in 2012), the influence of the planning profession and its ideals is still prevalent in local government today.

In 2012, the LGA was amended. The first purpose enabling democratic decision making was retained, but the second purpose was amended to require local authorities "to meet the needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses" (section 10 (1)(b)).

Key themes in the evolution of the planning system

The evolution of New Zealand's planning system has been marked by several key themes.

- Over time, responsibility for land use regulation and planning has been devolved to local government.
- The practice of planning became more political from the 1970s and successive planning frameworks have included more formal rights for community consultation.
- The perceived role, scope and impact of planning has progressively expanded from managing public health issues in the early years of the colony, to controlling socially problematic behaviours in the early-mid 20th century, to promoting desired social, cultural, economic and environmental outcomes.
- Despite repeated changes to the underlying legislation, there have been longstanding concerns about constraints placed by the planning system on development.

F2.1 Responsibility for land use regulation, planning and the provision of infrastructure (with the exception of main highways) in New Zealand has been devolved to local government over time.

F2.2 Successive planning frameworks have included more formal rights for the public to be consulted and/or object to plans, land use rules and proposals.

F2.3 The perceived role and scope of planning has progressively expanded from managing public health issues in the later part of the 19th century, to controlling socially problematic behaviours in the early-to-mid 20th century, to promoting a wide range of desired social, cultural, economic and environmental outcomes.

F2.4 There are longstanding concerns about the extent of constraints placed by the planning system on development.

2.3 The current planning framework

The planning and development system that allows for land to be made available and serviced for housing is governed by the RMA 1991, which authorises, limits or prohibits the use of land; the LGA 2002, which establishes processes to shape the provision of infrastructure that is needed to make land viable for housing; and the Land Transport Management Act 2003 (LTMA), which establishes processes to shape the provision

of transport infrastructure and services[4] (Figure 2.5). The following sections describe the main processes under these three statutes.

Figure 2.5 Modern legislation

Resource Management Act 1991 processes

The RMA creates a hierarchy of plans and standards, starting with National Policy Statements (NPSs) and National Environmental Standards (NESs) at the top, flowing down to District Plans at the bottom (Figure 2.6). NPSs set policies or objectives for matters of national significance, while NESs are regulations that prescribe technical standards and methods or requirements for particular activities. An NES may set a national standard so that there is no local variation, or a minimum standard that councils may not breach (MfE, 2015a, pp. 2–3).

The government has some discretion over whether and on what topics an NES or NPS is developed (subject to statutory content and process requirements). The RMA, however, requires that "there shall at all times be at least 1 New Zealand coastal policy statement prepared and recommended by the Minister of Conservation" (the NZCPS) (s.57). The NZCPS sets out "principles and policies for the sustainable management of New Zealand's coastal environment" (MfE, 2015a, p. 6).

Each plan must give effect to those above it – so a District Plan must give effect to the relevant Regional Policy Statement (RPS), and both the District Plan and RPS must give effect to an NPS, an NES or the NZCPS.

Figure 2.6 Hierarchy of RMA plans

	Function:	Prepared by:
• National Policy Statements (NPS) (voluntary)	NPSs provide nationwide policy guidance for councils in dealing with specific resource management issues.	Central government
• National Environmental Standards (NES) (voluntary)	NESs set nationwide technical standards to be followed in managing a particular resource or environmental issue.	
• NZ Coastal Policy Statement (mandatory)	The Coastal Policy Statement sets out requirements for councils in their day-to-day management of the coastal environment.	
• Regional Policy Statements (mandatory)	Regional Policy Statements identify significant regional resource management issues, outline objectives, and set policies to achieve those objectives.	Regional councils
• Regional Plans (voluntary)	Regional Plans set objectives and rules for the management of specific resources (eg, water, air).	
• District Plans (mandatory)	District Plans set out objectives, rules and policies governing land use.	District and city councils

District Plans are the main tool used to regulate land use for housing, although other plans may affect particular types of residential development (eg, construction that affects a significant water supply may need to comply with a regional water plan). In particular, District Plans lay out whether or not a particular development activity can be carried out, and the sorts of regulatory tests that must be met before consent is issued. A common way of defining the sorts of activities that can be carried out is to set zones – that is, areas

[4] A host of other statutes also have an impact on the planning and development system, including the Building Act 2004, the Public Works Act 1981, the Reserves Act 1977, the Property Law Act 2007, the Unit Titles Act 2010, the Health Act 1956, and the Local Government (Rating) Act 2002.

covering multiple sections of land, where particular activities are controlled in different ways depending on their designation (eg, 'residential', 'industrial', and so on). Each territorial authority sets its own rules and zones.

District Plans also set out the requirements that developments must meet to gain resource consent or be exempt from consenting requirements. These requirements typically include such aspects as requirements to set buildings back from the street by a minimum distance, minimum lot sizes, site coverage rules (eg, how much of a lot may be taken up with a building), building height limits and restrictions on altering heritage buildings or areas. Requirements vary between different cities' Plans, and within a single city's Plan – for example, minimum lot sizes are often far larger in zones at the fringe of city than those closer to the centre.

A measure of regulatory restrictiveness in District Plans is the type of classification applied to a particular development activity (eg, earthworks), and how the activity is defined. To prepare land for housing, developers may need to obtain resource consent. Whether or not resource consent is required depends on the classifications applied to the activity (Box 2.1).

Box 2.1 **Activity classifications under the Resource Management Act 1991**

- **Permitted:** No resource consent is required.
- **Controlled:** Resource consent is required. The consent authority must grant consent if the application contains all necessary information. Conditions may be imposed only for matters over which control is reserved in an NES, Plan or proposed Plan.
- **Restricted discretionary:** Resource consent is required. The consent authority's discretion is restricted to clearly specified matters (eg, in an NES, a Plan, or a proposed Plan). Where consent is granted, the activity must comply with the requirements, conditions and permissions specified in the relevant documents.
- **Discretionary:** Resource consent is required. The consent authority has broad discretion over whether to grant or refuse consent. If granted, conditions may be included. A discretionary activity consent may or may not be granted, depending on its circumstances.
- **Non-complying:** Resource consent is required, and may only be issued if the consent authority is satisfied that the adverse effects on the environment will be minor, or that the application is for an activity that will not be contrary to the objectives and policies of the relevant plan.
- **Prohibited:** No resource consent may be issued.

Source: Palmer, 2012.

More liberal Plans make greater use of "permitted", "controlled" or "restricted discretionary" classifications, as these either do not require a resource consent or limit the discretion of local authorities in considering consent applications, and reduce the need for consent applications to be notified for public submissions. Liberal Plans also apply more enabling definitions of activities that require consents (eg, smaller or no minimum lot sizes, or higher building limits). In making rules or requirements through District Plan provisions, local authorities are required to carry out specific consultation and analytical processes.

Where the local authority considers that a development could have more than minor effects on the environment, the resource consent application will be notified. The two forms of notification are *limited notification* and *public notification*. Where an application is publicly notified, the local authority advertises the application and seeks submissions from the general public. For limited notification, only affected persons (eg, immediate neighbours) are advised and can make submissions.

Most resource consents sought are for land-use activities. Of the resource consent applications processed in 2012/13, 66% were for land use, with a further 17% for subdivisions (MfE, 2014, p. 3). Land use and subdivision consents are generally processed by district or city councils. In 2012/13, 2% of subdivision

consent applications and 1% of land use resource consent applications were publicly notified; a further 2% of subdivision and land use applications were limited notified.

In preparing RMA plans (or changing existing plans), local authorities must follow a prescribed set of steps laid down in Schedule 1 of the Act. These are discussed in more detail in Chapter 6.

Under section 32 of the RMA, local authorities must also prepare evaluation reports for new proposals[5] that examine:

- the extent to which the proposal's objectives are the most appropriate way of achieving the RMA's purpose; and
- the efficiency and effectiveness of the proposed provisions (eg, policies, rules, and so on).

Local Government Act 2002 processes

Section 10 of the LGA sets out the purpose of local government, and includes specific reference to the important role that local government has in meeting the infrastructure and service needs of both current and future residents:

> (a) to enable democratic local decision-making and action by, and on behalf of, communities; and
>
> (b) to meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses.

The Act also sets out a range of planning requirements relating to the provision of infrastructure that local authorities[6] are required to undertake. These are summarised in Table 2.1.

Table 2.1 Local Government Act 2002 planning processes

Requirement	Mandatory	Timeframe	Main purpose
Long-Term Plan	Yes	10 years	To plan activities and service provision over a 10-year timeframe. Long-Term Plans (LTPs) also include revenue and financing policies, and must be accompanied by policies on development and financial contributions.
Infrastructure strategy	Yes	30 years	To plan the maintenance and improvement of infrastructure assets, along with investment in new infrastructure, over a 30-year timeframe.
Asset management plans	No	Varies	To manage infrastructure assets in a way that meets required levels of service for current and future customers in the most cost-effective manner.
Annual Plan and annual report	Yes	1 year	To set out and report on planned activities, revenue and expenditure for a financial year.
Financial reporting	Yes	1 year	To report planned and actual performance against a number of financial performance benchmarks, and to disclose information about core infrastructure assets.

Long-Term Plans

The LGA requires all local authorities to prepare an LTP every three years, covering a period of at least 10 financial years. LTPs set out the local authority's planned activities and expected performance, the community outcomes it is pursuing, and forecast revenue and expenditure. These tasks are specifically required for the following classes of infrastructure:

[5] This includes new Plans and changes to existing Plans (eg, new policies, rules, regulations or standards).

[6] Regional councils, unitary councils and territorial authorities.

- water supply;
- sewerage and the treatment and disposal of sewage;
- stormwater drainage;
- flood protection and control works; and
- the provision of roads and footpaths.

LTPs must include a 'funding impact statement' that sets out revenue and funding across different classes of infrastructure. The funding impact statement includes details of what operational and capital funding will be raised from different sources (eg, rates, fees and charges, or subsidies and grants), and how this funding will be applied.

LTPs are also required to include a revenue and financing policy that explains how and why the local authority has arrived at the choice of funding tools set out in their forecast financial statements (SOLGM, 2014). Local authorities must also have a policy on development contributions and financial contributions – although this policy does not need to be included within the LTP. Development and financial contributions are charges associated with land-use development and can be imposed to avoid or mitigate adverse environmental effects, or reflect the impact of a development on infrastructure use.

Infrastructure strategy

The LGA was amended in 2014 with the introduction of a new requirement for every local authority to prepare an infrastructure strategy and incorporate this within its LTP. These strategies should identify: infrastructure issues over a 30-year timeframe, the authority's plans for maintaining and improving its infrastructure assets, the estimated expenses, and key decisions that will need to be made about capital expenditure. The strategy must also explicitly state the authority's assumptions about the lifecycle of infrastructure assets, and changes in demand and service levels. Prior to the introduction of these requirements, authorities were only required to undertake infrastructure planning over a 10-year timeframe.

A central function of infrastructure strategies is to provide thinking and planning in terms of:

- the level of infrastructure investment needed to provide for community growth;
- managing the timing of investment for growth, to avoid constraints on growth from limited infrastructure capacity while minimising the costs of underused capacity;
- the level of investment needed to replace, renew or upgrade existing assets (upgrades are often necessary when increased capacity is required due to more intensive housing);
- how to balance service-level expectations with affordability in the context of anticipated demographic changes such as depopulation and ageing; and
- what level of investment, if any, is needed to improve the level of service provided by those assets (DIA, 2014a).

A number of elements of LTPs are particularly relevant to the supply of land for housing. For example, as part of developing an LTP, a local authority must also prepare an infrastructure strategy, identifying infrastructure issues over the next 30 years, the authority's plans for maintaining and improving its assets, estimated expenses, and key decisions that will need to be taken about capital expenditure. Infrastructure is discussed in Chapters 8, 9 and 10.

Asset management plans

The 2014 amendments to the LGA also emphasise the importance of asset management planning. Section 14(1)(g) of the LGA states that "a local authority should ensure prudent stewardship and the efficient and effective use of its resources in the interests of its district or region, including by planning effectively for the future management of its assets".

This provision reflects the fact that preparation of asset management plans is good practice, but stops short of introducing a mandatory requirement for local authorities to develop asset management plans in a prescribed format. The high-growth councils that are the focus of this inquiry each have management plans in place for at least some of their infrastructure assets.

Annual plans and annual reports

Local authorities must also prepare Annual Plans that detail activities, revenue and expenditure for the next financial year. The purpose of an Annual Plan, as set out in the section 95(5) of the LGA, is to:

- contain the proposed yearly budget and funding impact statement for the year to which the Annual Plan relates;
- identify any variation from the financial statements and funding impact statement included in the local authority's LTP in respect of the year;
- provide integrated decision making and coordination of the resources of the local authority; and
- contribute to the accountability of the local authority to the community.

An annual report must be prepared for each financial year to compare activities performed with those set out in the Annual Plan, with particular emphasis on comparisons with their forecast financial and non-financial performance.

Financial reporting requirements

Regulations introduced under the LGA in 2014 require every local authority to report in its Annual Plans, annual report and LTP on its planned and actual performance against a number of financial prudence benchmarks. The benchmarks include rates affordability, debt affordability and balanced budget. The impact of financial prudence benchmarks on council behaviour is discussed in Chapter 9.

Local authorities are also required to disclose in their annual reports certain information about core infrastructure assets (water, wastewater, stormwater, flood protection, roading). The information includes the closing book value, the value of acquisitions made during the financial year, and estimates of replacement costs.

Local authorities also use the LGA to develop non-statutory plans and policies that have an effect on the supply of land for housing. Some of these are discussed later in the report.

Bylaws

The LGA allows territorial authorities to set bylaws for one or more of the following purposes:

- protecting the public from nuisance;
- protecting, promoting, and maintaining public health and safety; and
- minimising the potential for offensive behaviour in public places. (s. 145)

In preparing bylaws, local authorities must:

- determine whether "a bylaw is the most appropriate way of addressing the perceived problem" and consider whether a proposed bylaw gives rise to any New Zealand Bill of Rights Act 1990 implications (s. 155(2)); and
- use a special consultative procedure (SCP) if the bylaw concerns a matter identified in the council's significance and engagement policy "as being of significant interest to the public" or the council considers "there is, or is likely to be, a significant impact on the public due to the proposed bylaw" (s. 156(1)(a)). The LGA spells out the processes that must be followed when using a SCP.

Bylaws of relevance to housing typically deal with water supplies and management, fire prevention and traffic management.

Land Transport Management Act 2003 processes

The Land Transport Management Act 2003 governs the funding of major transport projects and services, including road policing, public transport, and maintaining and developing the state highway network and local roads. The LTMA was amended in 2013, with several changes made to the Act's planning and funding framework. These changes sought to make the legislation more streamlined, simpler and less prescriptive (Ministry of Transport, 2015).

Through its Government Policy Statement (GPS) on Land Transport, central government sets the overall objectives and long-term results sought over a 10-year period, and expenditure ranges for each class of transport activity.[7] The New Zealand Transport Agency (NZTA) then develops a 3-year National Land Transport Programme (NLTP), which gives effect to the GPS and outlines the activities that will receive funding from the National Land Transport Fund. These activities are selected from proposals prepared by regional land transport committees, which include representatives of NZTA and the relevant regional council and territorial authorities.[8]

Activities proposed for funding must form part of a Regional Land Transport Plan (RLTP). Section 16 (1–2) of the Land Transport Management Amendment Act 2013 sets out the requirement for regional land transport committees to develop an RLTP:

> A regional land transport plan must set out the region's land transport objectives, policies, and measures for at least 10 financial years from the start of the regional land transport plan.
>
> A regional land transport plan must include—
>
> (a) a statement of transport priorities for the region for the 10 financial years from the start of the regional land transport plan; and
>
> (b) a financial forecast of anticipated revenue and expenditure on activities for the 10 financial years from the start of the regional land transport plan; and
>
> (c) all regionally significant expenditure on land transport activities to be funded from sources other than the national land transport fund during the 6 financial years from the start of the regional land transport plan; and
>
> (d) an identification of those activities (if any) that have inter-regional significance.

Once the NLTP is confirmed, local authorities can seek funding for activities carried out in their area. The National Land Transport Fund typically does not cover the full cost of these activities. Recent NZTA decisions mean that the National Land Transport Fund will meet an average of 53% of costs across the country. Local authorities contribute the rest, from sources such as rates, development contributions and passenger fares. The exact funding rate varies between 51% and 75% depending on the ability of local authorities to deliver transport outcomes. The current funding rate for councils that are the focus of this inquiry is 51%, except for Waikato District (54%, transitioning to 52% by 2017) and Whangarei District (54% in 2015, 53% from 2016).

2.4 The relationship between central and local government

In most developed countries, local governments play substantial roles in making regulatory and infrastructure decisions that influence land use. However, New Zealand's constitutional and institutional arrangements give *particular* discretion and autonomy to local authorities in regulating land use and providing infrastructure.

The Local Futures Research Project (2006) describes local government in New Zealand as "a largely autonomous provider of services, funded separately by property taxation and held accountable by voters" (p. 13). That said, the nature and extent of local authorities' powers and the relationship with central government is context specific, depending on the statutory framework. The planning framework, described in section 2.3 above, gives local authorities considerable autonomy in determining land use policy and

[7] The 2015/16 – 2024/25 GPS notes 10 transport activities: state highway improvements; state highway maintenance; local road improvements; local road maintenance; public transport; walking and cycling improvements; regional improvements; road policing; road safety promotion; and investment management.

[8] Auckland Transport plays this role in Auckland.

regulation under the RMA, and responsibility for providing local infrastructure to meet the needs of communities under the LGA.

Powers granted to local authorities that confer substantial discretion and autonomy are often referred to as devolved powers and they give effect to local government's role as the voice of local democracy:

> Powers of this type enable local authorities to set policy agendas and objectives, develop strategies for achieving those objectives, and evaluate the performance of those strategies. Their performance will be judged on their ability to consult and reflect community interests and preferences, and to reconcile different community interests and reach a decision. Powers granted under the Resource Management and Local Government Acts are good examples. (NZPC, 2013, p. 41)

Autonomy and discretion come from two aspects – local accountability and local funding. Importantly, local authorities in New Zealand fund regulatory activities and their own infrastructure needs. They have flexible powers to determine rates under the Local Government (Rating) Act 2002 and, with the exception of funding for roads, transfers of funds from central to local government in New Zealand are insignificant.[9] The lack of funding transfers reinforces that the primary accountability of councils is to their local communities.

Local authorities are not accountable to the relevant minister or government department for the exercise of powers conferred under statutes, unless there is an explicit statutory recognition of a line of accountability under which the Minister or department can exercise powers of intervention. The statutory intervention powers available to central government under the RMA and the LTMA are outlined by the Minister for the Environment's Urban Technical Advisory Group (2010). These powers are noted below.

- Every local authority is required to consult with the Minister for the Environment specifically, and other Ministers who may be affected during the preparation of any proposed RMA document.
- The Minister has a right of audience before every planning and consent hearing, both at council and appeal level.
- The Minister may, by introducing an NPS or NES under the RMA, require that every Plan in the country be changed. Such NPSs and NESs are also among the criteria by reference to which applications for consent are determined.
- The Minister may exercise call-in powers and appoint the hearings panel in respect of significant projects; and the decision makers are required to have regard to the Minister's reasons for calling it in.
- The Minister of Transport has significant powers by way of the GPS procedure provided for in the LTMA 2003 (Urban Technical Advisory Group, 2010).

NPSs and NESs have not been used as widely as had been envisaged. Of particular relevance to the urban environment is the NPS for freshwater management which was first introduced in 2011 and revised in 2014. Central government does regularly exercise its influence through the transport GPS. With that exception, the role played by central government in urban policy, regulation and the provision of infrastructure in New Zealand is minimal compared with other jurisdictions.

The role of Australian State governments in urban affairs has been increasing since the early 2000s. From 2000 to 2005, planning under State governments was progressively recentralised, with the establishment of metropolitan plans and special treatment of major infrastructure projects (in New South Wales). The period 2006 to 2010 saw increased codification and standardisation of local planning (in NSW, South Australia, Queensland and Victoria), increased emphasis on infrastructure funding, and increased State powers to intervene in local planning (Gurran, Austin & Whitehead, 2014). In Canada, the Ontario Provincial Government prepares the growth plan for the 'Greater Golden Horseshoe' centred on the city of Toronto. In England, the purpose of a spatial plan is not to reflect the priorities of the area concerned, but rather the Secretary of State's policies for that area (Urban Technical Advisory Group, 2010).

[9] An example of a small transfer of funding to local authorities from central government is the Drinking-Water Assistance Programme. The programme includes subsidies to help small rural communities establish or improve their drinking water supplies.

Gurran, Austin and Whitehead (2014) characterise the Housing Accords and Special Housing Areas Act 2013 (HASHA), and the apparent willingness to take over planning powers in Christchurch, as efforts at greater centralised control in New Zealand:

> The [HASHA] act introduced greater centralised control: while local councils were given an 'opt out' clause, the government could introduce the more permissive planning regime regardless. In addition the government (through the Earthquake recovery Minister) has stated that it will take over planning powers in Christchurch … if needed to ensure residential development goes ahead as it deems appropriate. (p. 193)

Yet both interventions are the result of specific issues in specific cities and have not sought to change the fundamental powers of local authorities to plan, regulate land use and provide for infrastructure. While Gurran, Austin and Whithead (2014) argue a tendency towards greater central government control, other commentators have argued that central government seldom uses the statutory powers of intervention available to it. For example, the Minister for the Environment's Urban Technical Advisory Group (2010) notes that every local authority is required by clause 3 of the First Schedule of the RMA to consult with the Minister during the preparation of a proposed plan or plan change and that this affords the Minister an early opportunity to have an influential voice in the preparation of every planning document throughout the country:

> Our understanding however is that the Ministry no longer engages in this role to anything more than the most limited or cursory extent. Indeed, it may not be going too far to say that the Ministry has virtually withdrawn from this role altogether. (Urban Technical Advisory Group, 2010, pp. 15–16)

The particular arrangements in New Zealand open up the possibility of a greater misalignment between national and local interests than in the planning and development systems of other jurisdictions. Indeed, the Local Futures Research Project (2006) concludes that in New Zealand "in the absence of well-defined constitutional or fiscal relationships, local and central government are most accurately regarded as two spheres of a system of collective decision-making, each with revenue-collection powers to fund the implementation of its particular policies and programmes" (pp. 13–14).

Misalignment between these two spheres of decision making is more likely to become evident when the system comes under pressure. How the pressure to accommodate urban growth plays out through the New Zealand planning and development system is discussed in the next chapter.

F2.5 Central government in New Zealand plays a limited role in urban policy, regulation and the provision of infrastructure in comparison with other jurisdictions such as the UK and Australia.

F2.6 Where central government has become directly involved in planning, this has generally occurred in response to crises or specific issues (eg, the Canterbury earthquake recovery, housing supply in Auckland). It has otherwise made little use of the statutory intervention powers it has under the RMA until recently.

F2.7 The constitutional and institutional arrangements in New Zealand strengthen the role of local government in the planning and development system relative to other countries. As a result, any misalignment of incentives between local and national interests may be more pronounced in New Zealand than elsewhere.

3 Cities, growth, and land for housing

Key points

- The concentration of people and firms within cities creates benefits both for their residents and for the country as a whole. When cities function well, they provide greater choices of employment and a wider pool of labour, more opportunities for specialisation, and easier transfer of ideas. Cities also raise the prosperity and wellbeing of surrounding regions.
- The growth of cities also creates costs, such as pressure on infrastructure and the availability and cost of housing. This puts a premium on good city organisation and the ability to effectively plan for growth.
- The decisions that a city council makes about its growth may be at odds with the interests of central government in increasing the wellbeing of New Zealanders that would arise from a city of a larger size. This is because large cities offer more jobs, higher incomes and productivity, benefiting a city's residents and the country as a whole, but the costs of growth, such as the need for more infrastructure, are felt locally.
- Given current regulatory settings and planning restrictions, the growth in the population and in the demand for housing has increased the price of residential land, especially in Auckland. The scarcity of developable land and the resulting high land prices encourage the production of larger and more expensive housing.
- In New Zealand, an increase in the demand for housing leads to a proportionately larger increase in the price of existing housing than in the construction of new housing.
- Part of the reason for this is that the planning system releases the supply of land in response to a policy and political process. It is not responsive to price signals, which would provide information about the location and type of housing that people seek and the available supply.
- Where demand for new residential land exceeds the supply allocated through the planning system, landowners and developers can act like local monopolists. They have an incentive to "drip feed" the supply of zoned and serviced land to maintain high prices.
- Homeowners have considerable influence in local government elections and are often strongly represented in community consultation processes. Homeowners have an incentive to oppose developments that could reduce the amenity and value of their homes and that may involve new infrastructure spending and higher rates. Their influence promotes council decisions that have the effect of reducing land supply for housing.
- Local land-use regulation can have consequences of national importance, including high housing costs (whether rented or owned), overcrowding, barriers to some groups accumulating wealth, limits on the ability of people to seek better employment opportunities in cities, obstacles to potential productivity gains, and risks to macroeconomic stability.
- Those bearing the costs of regulatory constraints on land supply are not effectively represented in the planning system. National and local interests in the planning system need realigning.

3.1 Introduction

The greatest pressure on the supply of land for housing is in our fastest-growing cities. This chapter discusses:

- the reasons why cities grow and the benefits and costs of city growth;

- the drivers of the demand for housing and land in cities, and the drivers of land and housing prices;
- how and why the planning framework fails to meet demand; and
- the impacts of restricted land supply.

3.2 The benefits and costs of cities

New Zealand is one of the most highly urbanised countries in the world, with about 86% of New Zealanders living in urban areas.[10] That said, New Zealand has only one city of significant size. Auckland's population was about 1.42 million people in 2013, a little under three times larger than the population of the greater Wellington region, but still much smaller than either Sydney (4.37 million) or Melbourne (4.18 million) in 2013. Auckland has been described as a "mid-size Australasian city"; bigger than Adelaide but smaller than Perth (Daley, 2015).

What is so attractive about cities that people want to live and work there? Why would we want to ensure that planning and development systems "deliver an adequate supply of development capacity for housing" (the inquiry terms of reference) to meet this demand?

The benefits of agglomeration

Conceptually, cities are simply dense agglomerations of people and firms. The benefits of cities come from access to a larger supply of goods, people and ideas (Duranton & Puga, 2003; Lewis & Stillman, 2005).

The advantages of concentrating economic activity in cities have changed over time. In the past, manufacturing firms have taken advantage of locating production close to consumers. Reductions in the cost of transporting goods and the diminished role of manufacturing for economic growth have meant that cities are not quite as important, in this respect, as they have been in the past. Growth in developed economies is now increasingly driven by service industries. Graham, Gibbons & Martin (2009) show that the productivity benefits of agglomeration are greater for firms delivering services than for those producing goods. It is the ability of cities to more quickly mix and match people and ideas that is now increasingly important.

For people, larger cities provide a greater choice of employment and more specialised employment (Bertaud, 2014b). Larger cities do not just offer jobs for lawyers; they offer jobs for lawyers specialising in, for example, corporate and commercial law, intellectual property law, labour and employment law, environmental law and tax law. Professional people who are highly specialised are able to provide greater benefits to the firms and individuals who use their services. People who work in large cities can therefore be more productive and, as a result, they earn, on average, higher wages (OECD, 2014). The benefits of being in a more productive environment do not just happen on arriving in a city; workers in larger cities also experience higher wage levels than workers elsewhere, and this increase persists over time. This seems to be because workers can take advantage of training, networks and knowledge sharing while living in a large city. Even when workers move away from a larger city to a smaller city, their big city experience is still reflected in their earnings (Glaeser & Maré, 2001).

Cities also provide a rich labour market for both workers and firms. Rotemberg and Saloner (1991) argue that having a rich market for skills encourages workers to invest more in their human capital. Firms also benefit from a larger labour market because they have a greater choice of workers and therefore better chances of finding the right match of skills to meet their needs.

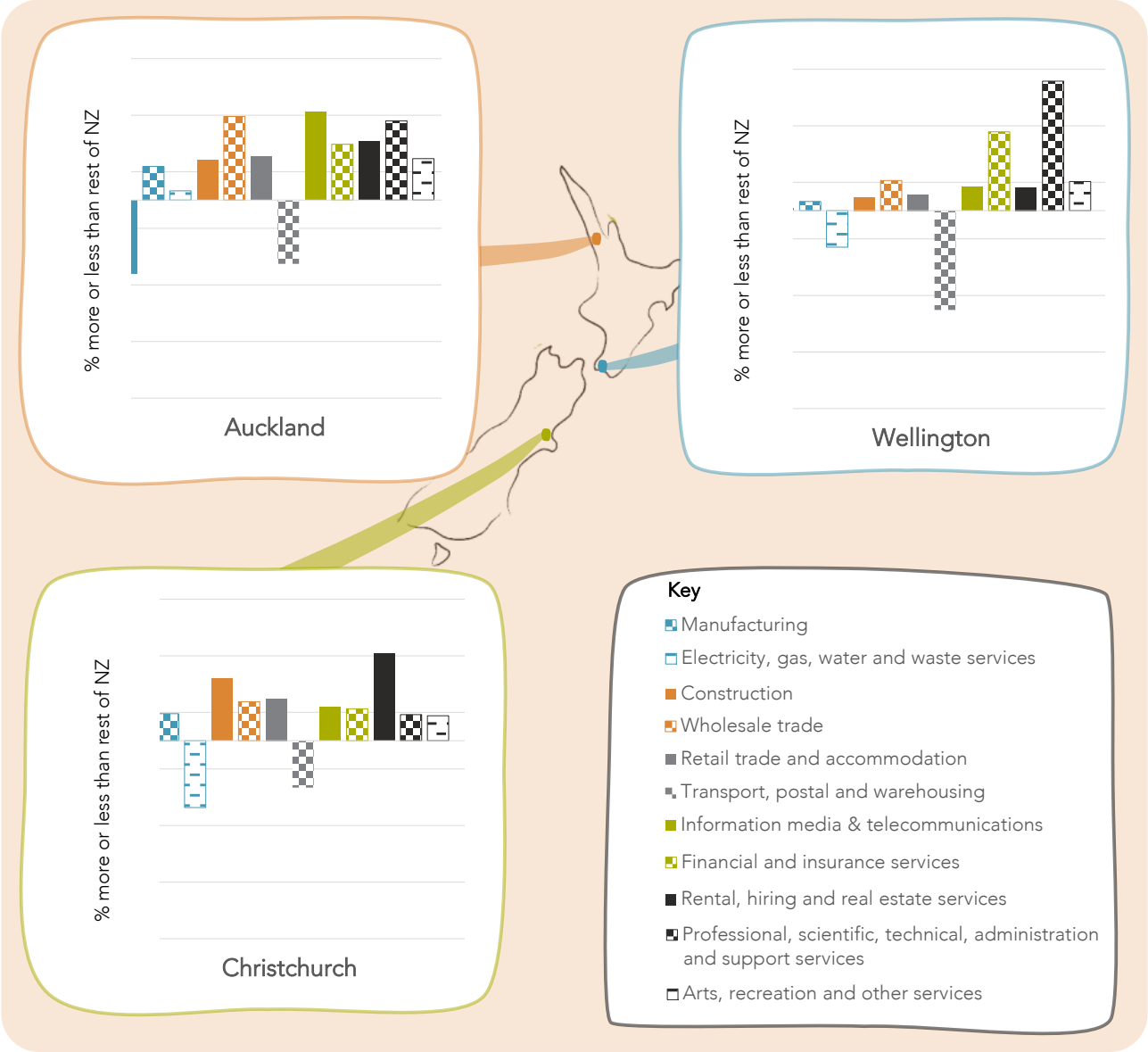
Glaeser and Gottlieb (2009) emphasise the role that proximity to other people in cities plays in speeding the flow of ideas. The density of cities appears to speed up the rate at which people interact and these interactions lead to faster human capital accumulation. According to Glaeser (1998), cities are very effective in training people because they are full of knowledgeable and successful people, providing a wide range of educational experiences and exposure to a wider range of ideas and technologies.

The higher productivity of New Zealand's biggest cities – Auckland, Wellington and Christchurch – compared to the rest of the country is shown in Figure 3.1. Their higher productivity is partly due to the

[10] The population of rural areas has increased very little since the early 20th century. The rural population was 501 258 in 1916 and 532 740 in 2001.

composition of the industries that are located in cities and partly due to higher labour productivity within these industries.

Figure 3.1 Labour productivity in selected NZ cities, compared to the rest of New Zealand 2012



Source: Productivity Commission analysis of Statistics New Zealand data.

Notes:

1. The bar charts measure median labour productivity across firms in 2012 (percentage more or less than the median labour productivity of the rest of New Zealand – ie, excluding Auckland, Wellington and Christchurch) on the vertical axis, with industries on the horizontal axis.
2. New Zealand has no regional price deflators, so part of the higher labour productivity in urban areas is due to higher prices in urban areas.
3. The chart does not include Mining, Agriculture, Forestry or Fishing, as the number of firms involved in these activities in Auckland, Wellington and Christchurch is small.

Cities can offer higher amenity

Cities are not only places where people work; they are also places where they learn, play and consume goods and services. Larger urban areas offer more recreational and cultural amenities, shops, restaurants and educational opportunities than smaller centres and rural areas. Cities can also provide better quality infrastructure. The Australian Productivity Commission (APC) has found that economic and social infrastructure featured heavily in people's responses to surveys about where they choose to live and work in Australia (APC, 2014a).

The spillover benefits of large cities

The higher productivity, incomes and amenity found in large cities are important for their residents, but cities also affect the prosperity and wellbeing of surrounding regions. The OECD (2014) reported that regions that include large metropolitan areas of more than half a million inhabitants grew by approximately 0.2 percentage points faster each year between 1995 and 2010 than those that do not. More generally, the population density of the most densely populated parts of a region is a very good predictor of per capita regional Gross Domestic Product (GDP) growth. And while positive spillovers decline with distance, large cities of 2 million inhabitants can benefit the economic performance of regions up to 300 kms away (OECD, 2014).

Agglomeration costs

While cities provide benefits to the people who live there and, through their productivity, to surrounding regions, growing cities also create more negative externalities – as more firms and more people put pressure on a city's infrastructure.

The pressure on transport infrastructure is readily observed, but other infrastructure, such as wastewater treatment and the management of stormwater, can come under significant pressure too. When infrastructure is under pressure, the costs are borne by a city's residents either as negative effects – traffic congestion or an increased risk of flooding – or in the costs of upgrades or extensions to meet the increased demands on the city's infrastructure systems. The question of who pays for new infrastructure (or upgrades to existing infrastructure) is of central importance to whether a city can successfully accommodate growth, and it is a central question for this inquiry.

Traffic detracts from the benefits of city life. Roads become congested and commutes are longer. But while commuting time invariably increases with city size, some cities handle the flow of traffic better than others. How a city manages will depend on its pattern of land use, such as whether jobs are located in the city centre (a mono-centric urban form) or are dispersed across different locations (poly-centric urban form) and the transport policies it adopts.

Poorly organised cities can lead to a loss of potential agglomeration benefits. Firms cannot take advantage of a wider pool of workers available in a big city if the costs and time of getting to work, or the lack of coordinated public transport infrastructure, limit the areas in which people seek work. Ahrend and Lembcke (2015) note that some large cities are actually just smaller fragmented labour markets.

The differences between cities, especially where jobs are located, lead to very different transport infrastructure requirements. For example, Wellington has a monocentric urban form with a high proportion of jobs located in the central business district (CBD), whereas Auckland's urban form is more polycentric. Figure 3.2 shows employment in tradeable services which are predominantly located in the Auckland CBD. Figure 3.2 shows Auckland's major goods producing industries located to the south and west.

Daley (2015) noted that, in Australia, services industries tend to congregate in the centre of cities to take advantage of the agglomeration benefits of proximity. The growing importance and dominance of service industries in Auckland will likely influence its future transport needs. Figure 3.3 shows employment growth by sector in Auckland 1995-2015. The graph shows that an increasing share of employment growth is in services industries.

Daley (2015) argues that in large Australian cities, the labour market is becoming fragmented. People on the city fringes are increasingly unable to access higher-paying jobs concentrated in the CBD as time and distance to work become an insurmountable barrier. [11]

[11] Daley (2015) commented that the difficulties of access to high-paying jobs in the centre of Australian cities by those living on the urban fringe is having an impact on women's participation in the labour market, with a concomitant loss of productive potential. The high price of housing in the inner suburbs has meant that young families are increasingly located on the urban fringe, making a return to the workforce after having children difficult. The problem is compounded by poor transport links and long commutes.

Figure 3.2 Location of industry in Auckland

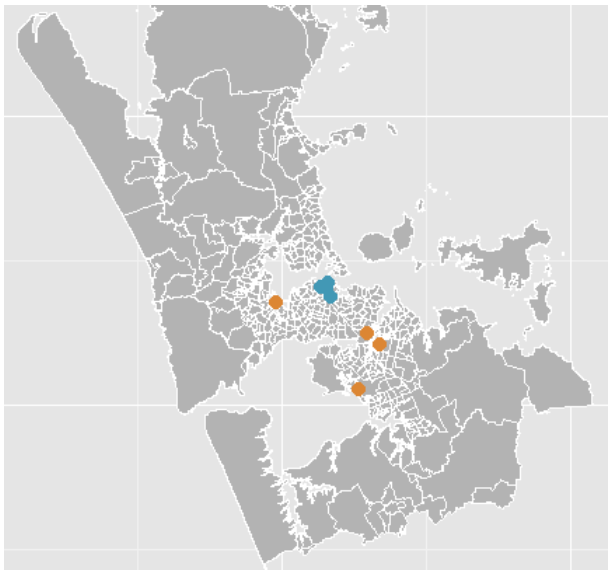
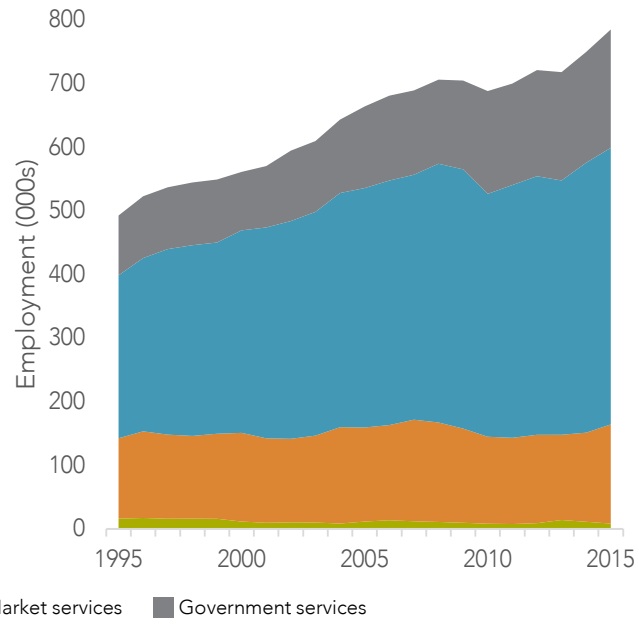


Figure 3.3 Employment growth by sector in Auckland



Source: Productivity Commission analysis of Statistics New Zealand data

Notes for Figure 3.2:

1. Each dot represents a high concentration (more than 5% of total Auckland employment). Of the manufacturing areas: 9.4% of total Auckland employment is located in Highbrook, 5.9% in Manukau Central, 6.8% in Mt Wellington South and 5.5% in Rosebank. For tradeable services: 10% of total Auckland employment is located in Auckland central, 12% in Auckland central west, 12.1% in Auckland harbourside and 5.2% in Newmarket.

Notes for Figure 3.3:

1. June years (eg, 2015 is year ended June 2015)
2. Annual counts by sector are calculated as average count for the previous 4 quarters (ie, Sept-June)
3. The data is employment counts, not hours (so may be influenced by different changes in part-time/full-time work in different sectors)
4. "Auckland" is defined using 2011 meshblock boundaries.
5. Industry concordance: due to change from ANZSIC96 to ANZSIC06, there are some inconsistencies over time in the sector breakdown.

The problem is not just about poor transport links from the fringes of cities to the centre. The high price of housing in Australian cities is due to land use policies which prevent intensification of the historic suburbs surrounding the city centre. Intensification in these suburbs would increase the supply of housing closer into the CBD, lower prices and provide access to more productive jobs in the CBD.[12]

The Commission analysed changes in the density of four New Zealand cities over three census periods (2001, 2006 and 2013). The results of the analysis are presented in Figure 3.4. The figures show the relative contribution to intensification of a city's suburbs by their distance from the city centre, and the overall change in the city's density. The 'overall' figure is the sum of the contributions made by the different parts of the city to density.

[12] The relationship between restrictions on increasing housing supply in inner city suburbs and the cost of commuting for households on the city fringe has been shown by Bertaud and Brueckner (2005). The authors measure the welfare cost of restricting housing supply through building height restrictions in the inner suburbs by measuring the commuting costs of those living on the city fringe. They estimate a welfare loss in the order of 2% of income, which they describe as a significant distortion, similar to the measured welfare cost of other key distortions in Western economies.

Figure 3.4 The contribution to intensification by distance from the centre of four cities

Source: Productivity Commission analysis of Statistics New Zealand data.

Notes:

1. Distance to centre of each city studied is measured as a linear distance between centres and each area unit.
2. Dwelling density is the number of occupied private dwelling for each square kilometre, $density_t = \sum_i dwelling_{it}/_{area}$, where *i* and *t* indicate distance category and time. Area has held constant over the last three Census.
3. Bars in the 'overall' category in each chart provide density changes in percent between two Census, $\frac{density_t}{density_{t-1}} - 1 = \frac{\sum_i (dwelling_{it} - dwelling_{it-1})/_{area}}{\sum_i dwelling_{it-1}/_{area}} = \frac{\sum_i (dwelling_{it} - dwelling_{it-1})}{\sum_i dwelling_{it-1}}$, is the sum of changes in dwelling counts in individual distance categories over total dwelling counts in previous Census. Other bars present contributions to overall growth from individual distance category, expressed as $\frac{dwelling_{it} - dwelling_{it-1}}{\sum_i dwelling_{it-1}}$.

In Wellington and Hamilton, significant contributions to the intensification of housing have occurred closer to the city centres. In Auckland, inner city suburbs have made a relatively subdued contribution towards intensification. Between a third and half of the city's intensification between 2001 and 2006 occurred between 10 km and 20 km from the centre. A number of commentators have noted Auckland's unusual density profile. Hill Young Cooper concludes that when Auckland's

> …actual urban density (dwellings per ha) is compared to land values, then it is apparent that there is a significant deviation occurring close to the CBD. The densities in this area have not adjusted to the

> higher land prices. This is likely to be the result of the heritage zoning in this area. This suggests a significant imbalance between supply and demand, one that is likely to drag up the median house price. (sub. 65, p. 16)

In greater Christchurch, the centre of the city (ie, up to 10 km from Cathedral Square) detracted from overall intensification after 2006. This most likely reflects the 2010 and 2011 earthquakes, which destroyed a large share of the housing stock in the city. The largest contribution to intensification after 2006 occurred 20–30 km from the centre, in the Selwyn and Waimakariri districts. Yet between 2001 and 2006, greater Christchurch had an intensification profile similar to Auckland, with the heart of the city (<5 km from Cathedral Square) making a relatively weak contribution, even before the Canterbury earthquakes.

Councils have choices to make in how they respond to growth. Their transport and other city infrastructure policies matter, as do their land use regulations that determine where new housing is located. These decisions are important matters for a city's residents, but they are also important for the economy as a whole. The higher costs of housing in large cities can price people out of moving there, dampening the incentive for workers to move to cities to take advantage of higher productivity and higher incomes. These constraints on labour mobility limit the ability of cities to contribute to higher national productivity growth.

F3.1 New Zealand's economy is increasingly dominated by services produced in our largest cities. Taking full advantage of agglomeration economies, or removing barriers to achieving agglomeration economies, will be important for New Zealand's overall productivity growth.

F3.2 Poorly organised cities can lead to a loss of potential agglomeration benefits. Firms cannot take advantage of a wider pool of workers available in a big city if the costs and time of getting to work or the lack of coordinated public transport infrastructure limit the areas in which people seek work.

F3.3 Capturing the productivity benefits that large and growing cities offer their residents and the wider economy puts a premium on good infrastructure planning, including the delivery of an adequate supply of development capacity for housing.

There may be no optimal city size

Much of the literature on agglomeration economies focusses on large cities. But Fujita and Thisse (2002) noted that regional agglomeration is evident in the great variety of small and mid-sized cities across the United States and Europe, suggesting that size isn't the whole story. Some cities, for example, demonstrate agglomeration economies because they are specialised in a small number of industries. Firms in these industries benefit from close proximity to each other and the pool of specialized labour that is attracted to work in these cities.

Is there a city size where agglomeration costs simply outweigh the agglomeration benefits? Alonso (1971) recognised that it depends on whether "a national or local viewpoint is assumed" (p. 72). As Camagni, Capello and Caragliu (2013) explain, the optimal city size from the perspective of the national economy is when the city makes its maximum possible net contribution to national per capita income "and should be assumed as a target by a national government interested in efficiency of the urban system" (p. 311). However, the optimal city size from the point of view of the population already located in the city is when the difference between local agglomeration benefits and local costs is maximised. The decisions that a city council makes about its growth may therefore be at odds with the interests of central government in maximising the overall well-being of a country's citizens that can arise from a larger city size. Combes, Duranton and Gobillon (2012) observed that many cities actively restrict growth because their focus is local and they are concerned about population growth imposing "large costs to already established residents by bidding up housing prices and crowding out the roads" (p. 1). However, in a challenge to the view that

increasing population imposes large costs on cities, the authors find that, at least for French cities, the costs of having larger cities are modest and are of the same magnitude as agglomeration economies.

Importantly, city policies can increase or reduce agglomeration costs. According to Bertaud (2014b) the fundamental challenge for city authorities, irrespective of city size, is to reduce the negative externalities associated with agglomeration in their cities, without destroying the wealth that agglomeration creates. "To do that, they must plan and design infrastructure and regulations while leaving intact the self-organizing created by land and labor markets" (p. 2).

The difference between national and local aspirations for growth

The foregoing discussion highlights a potential misalignment of incentives between local and central government.

The submission from Auckland Council is clear on the difference between its interests and the national interest with respect to accommodating growth. Auckland Council recognised that "a growing city delivers agglomeration benefits for economic growth and some economies of scale in the provision of services" (sub. DR135, p. 25). Further,

> Auckland has an important role to play in the country's long-term economic growth. Auckland is New Zealand's largest city and commercial centre, with a scale and ethnic diversity that supports critical international connections. It is home to over a third of New Zealand's population, accounts for a third of all national employment, and contributes 35 per cent of national GDP. (sub. DR135, p. 4)

There is also a recognition that central government and local perspectives on city size may differ (Orakei Local Board, sub. DR135 attachment 2). However, the Council pointed out that Auckland will need to build the infrastructure for an urban area equivalent to one and a half times that of Hamilton to support the additional greenfield growth provided through the Proposed Auckland Unitary Plan (PAUP). Auckland Council emphasised that "revenue does not increase in proportion to the scale of economic growth and the council notes the cost of growth is escalating. The infrastructure investment required to support growth has major implications for the council with significant consequences for general rates" (sub. DR135, p. 1).

F3.4 The decisions that a city council makes about its growth may be at odds with the interests of central government in increasing the wellbeing of New Zealanders that would arise from a city of a larger size. Large cities offer more jobs, higher incomes and productivity which benefit a city's residents and provide wider benefits to surrounding regions and the country as a whole, but the costs of growth are felt locally.

3.3 The demand for housing and the price of land in New Zealand

The next sections explain the nature of the demand for housing in New Zealand, and how the planning and development system responds to the demand for land for housing to meet growth. The final sections of this chapter return to the difference between local and national interests, and discuss the outcomes generated by the planning and development system, from the national perspective.

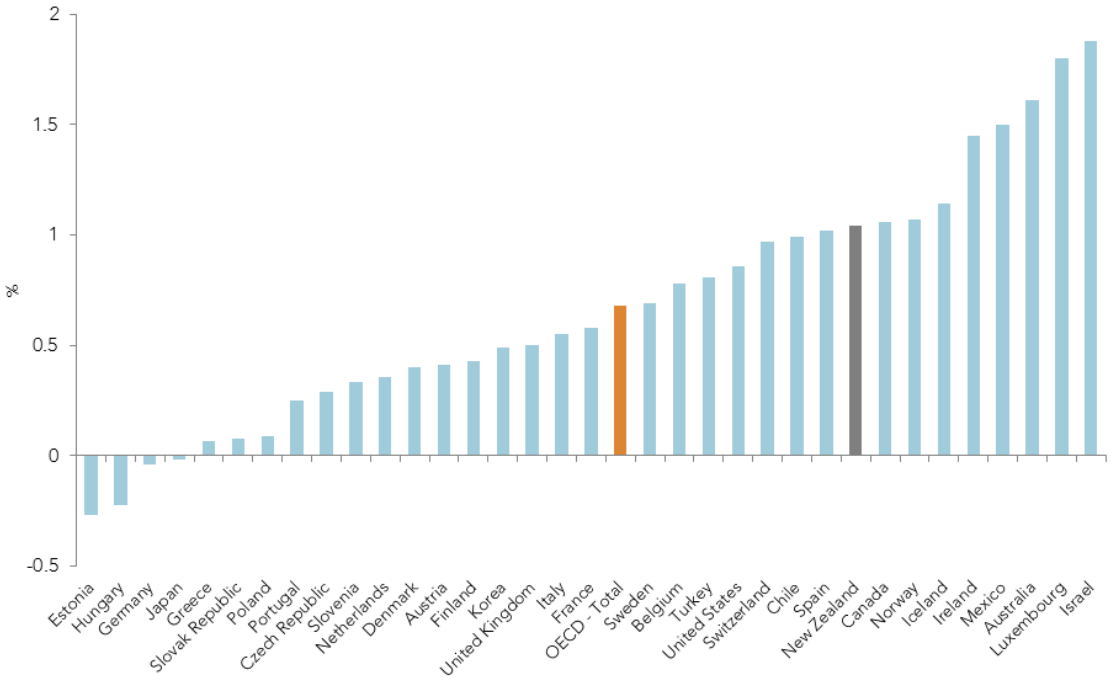
Population, demographics and effective demand

The *Housing affordability* inquiry (NZPC, 2012a) outlined the key drivers of housing demand, distinguishing between underlying and effective demand for housing.

- *Underlying* housing demand is driven by household formation, which reflects population growth and changes in household size. In turn, population growth is a function of natural increases (births minus deaths) and net migration. Household size is essentially determined by demographic factors, although new household formation is also determined by economic factors, as higher incomes and access to finance enables new households to form.

- *Effective* housing demand reflects the combined effect of consumer and investor aspirations to rent or buy a dwelling and their financial ability to do so. As such, it is influenced by the prevailing set of economic factors, including incomes, availability of finance and the economic situation more generally.

Figure 3.5 Average yearly population growth for OECD countries, 2004–2013



Source: Productivity Commission analysis of OECD data.

Figure 3.6 Average yearly absolute population growth 2004–2014

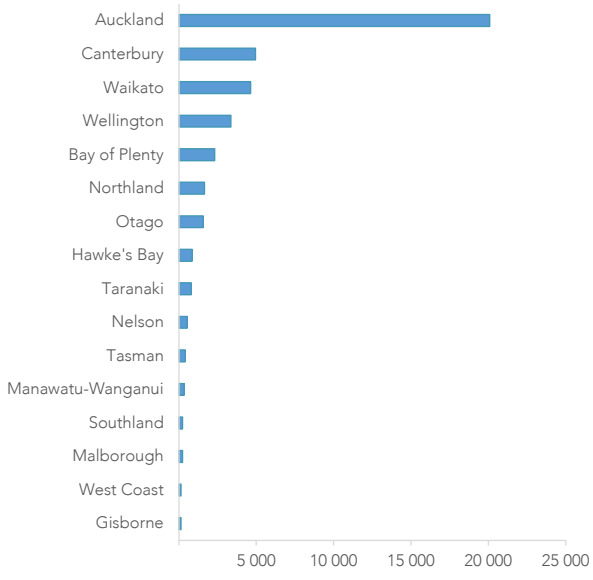
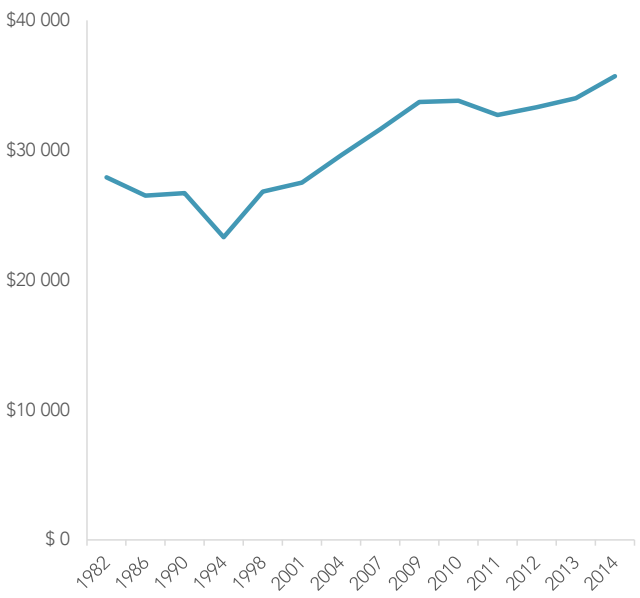


Figure 3.7 Median household income in New Zealand 1982–1914



Source: Productivity Commission analysis of Statistics New Zealand data.

The Commission has found that both underlying and effective demand-side drivers have, to varying degrees, played a role in the New Zealand housing market. In particular, population and demographic influences have been important drivers of household formation, with implications for the quantity and type of dwelling required in the New Zealand market.

Population growth has been strong when compared to the OECD average (Figure 3.5) with population growth and migration focused on Auckland (Figure 3.6). Demographic changes – such as population ageing, cultural and ethnic diversification and a radical transformation in family structures – have also been pronounced over recent years (NZPC, 2012a). Although there is some debate in the New Zealand literature on the significance of migration for house prices (Coleman & Landon-Lane, 2007; Maré & Stillman 2008), across OECD countries, higher population growth (from whatever source) is associated with real house price appreciation (Sánchez & Johansson, 2011).

Changes in effective demand have also been significant. Although income growth has been relatively weak (Figure 3.7), it has still led to demand pressures in the housing market as households trade up to improve the quality of their living environment. Significantly, increased access to credit, low interest rates and innovations in financial instruments have increased the 'borrowing capacity' of households and have been a key source of increased effective demand for housing. The effect of income growth can be seen in the construction of higher-value homes (Figure 3.10) and the increasing size of new dwellings (Figure 3.11).

Household preferences and capitalisation of amenity in the price of housing

Not every house is the same and households will have different preferences for location and type of housing. A range of factors is relevant in the choice of housing (such as preferred choice of school or preferences for one neighbourhood over another) along with the specific characteristics of a property (such as size, number of bedrooms and style of architecture). These aspects must be traded off in the choice of property, within the household's budget constraint. As a household's budget constraint expands, people demand, and can afford to pay for, more space and/or more amenity.

Amenities that are highly valued are capitalised in housing prices. The attributes that are valued vary between countries and between cities, but valued attributes are observed to have a marked impact on housing prices.[13] And, as the distance from the valued attribute increases, prices fall. For example, Grimes and Young (2010) estimated that house prices adjacent to New Lynn station rose by 3.5% following the announcement in 2005 of upgrades to the Western Line of Auckland's passenger rail network – including electrification, double tracking, and upgrades to the station that involved moving sections of the line underground. The further away houses were from the upgrades the smaller the effect on house prices. No effect was observed on house prices after about 8 km.

Conversely, other developments, such as widening a road to take more traffic flow, can decrease local amenity and this will also be reflected in the (lower) prices of nearby properties.

The relationship between the demand for housing and the price of land

When the demand for housing increases, so does the demand for residential housing land. More and better housing requires land, putting pressure on land prices. When the supply of land is unconstrained, two effects can be observed (Kulish, Richards & Gillitzer, 2012).

- The higher price for land for residential use encourages more land to be used for housing compared to other uses, such as agricultural, commercial or industrial uses. The price of residential land re-adjusts as more land becomes available.
- When the demand for residential land increases, land in more desirable locations attracts a price premium. This prompts developers to build more dwellings on each unit of land, and construct multi-storey buildings and smaller dwellings.

A high price for land is a signal about its value. As the price of land increases, land use switches to higher value uses.

However, when the supply of land is restricted, residential land prices continue to rise in response to the demand for housing. Kim et. al. (2008) show that, in US metropolitan areas, house prices and residential land values increase as the supply of land becomes more restricted. Figure 3.8 shows the rise in nominal land

[13] A number of studies have measured the value of different amenities and the effect on house prices in different countries by separating out the structural attributes of a property from its locational characteristics (eg, Cheshire & Sheppard (1998) and Gibbons, Mourato & Resende (2014) in the United Kingdom; Walsh, Milon & Scrogin, (2011) and Netusil, Chattopadhyay & Kovacs (2010) in the United States; and Pearson, Tisdell & Lisle (2002) in Australia).

values in New Zealand's 10 fastest-growing territorial authorities. Land price pressures have been particularly acute in Auckland where land values have increased by significantly more than in the rest of New Zealand. Land now accounts for about 60% of property value in Auckland. And in many high growth councils land is approaching 50% of total property value, compared with about 45% in the rest of New Zealand (Figure 3.9).

Figure 3.8 Nominal median land values

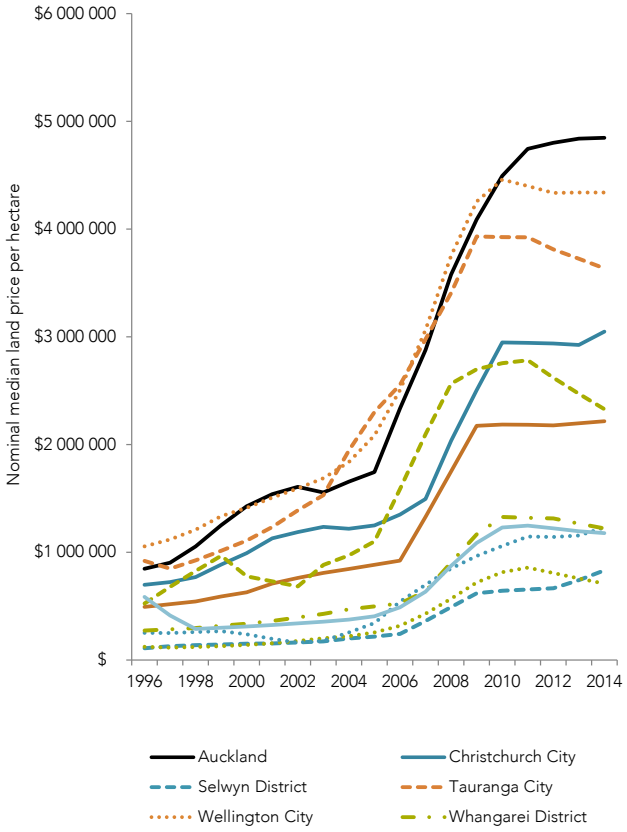


Figure 3.9 Land value as a share of total property value

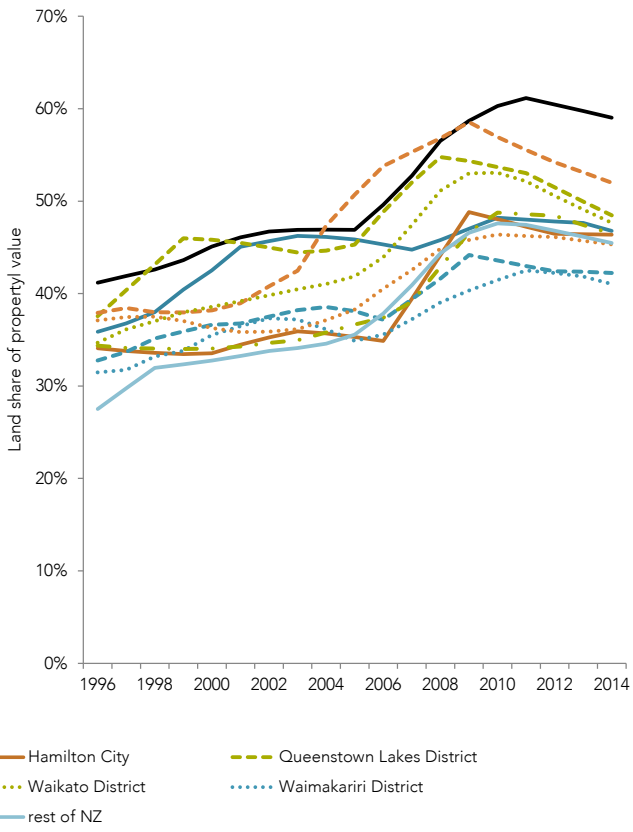


Figure 3.10 The value of new housing relative to existing housing stock

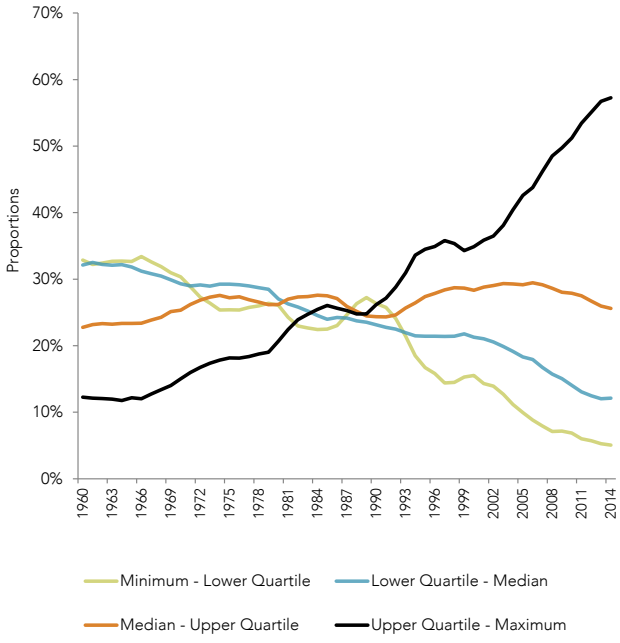
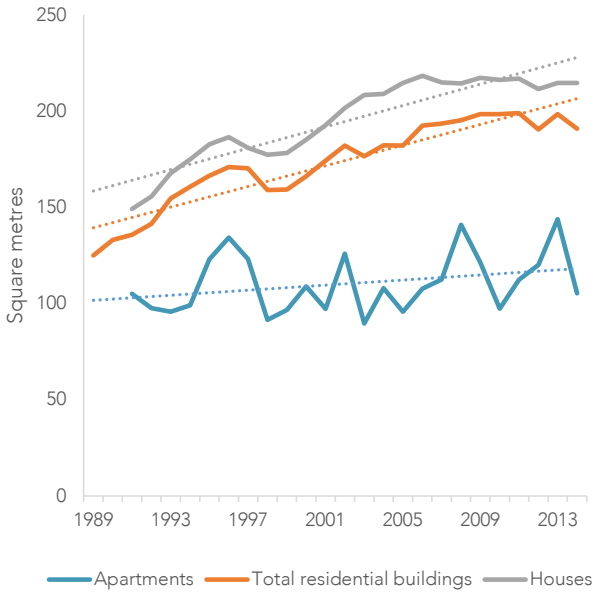


Figure 3.11 Average floor size of new dwellings



Source: Productivity Commission analysis of CoreLogic data (Figure 3.8, Figure 3.9, Figure 3.10) and Statistics NZ data (Figure 3.11).

The expectation that land for residential development will continue to be scarce in the face of pent-up demand for housing encourages speculation in land, and for landowners to withhold land in anticipation of higher future returns (Chapter 4).

The scarcity of land and high land prices also affects the behaviour of developers.

- If developers are constrained from building smaller multi-unit dwellings on valuable sites, developers have an incentive to build larger and more valuable highly spec'd houses catering to the most profitable part of the market.
- Murphy (2015) argues that where there is competition for scarce land, a developer needs to construct dwellings that sell at the top of the market to be the successful land purchaser. A developer cannot build a modest house with the expectation of selling the total property for say $500 000 because they will be outbid for the land by a competitor who believes that, by building a more expensive house, they can sell the total property for $700 000. Murphy argues that this is what drives the race to the top for larger and higher-value houses and serves to bid up land prices.
- The Commission also heard that developers who had managed efficiencies in construction were able to outbid competitors to be the successful land purchaser. This suggests that the beneficiaries of more efficient building methods are likely to be landowners rather than the final purchasers of dwellings. That efficiencies in construction can enable a developer to bid up the price of land to be the successful land purchaser has been noted in the United Kingdom as well (Barlow,1993).

The incentives on developers outlined above are another reason why there is a tendency towards building higher-value homes and larger homes shown in Figure 3.10 and Figure 3.11.The observation that the demand for housing is the driver of the demand for and price of residential land, and that, where land is constrained, the price and scarcity of land feed into the price of housing, demonstrates the nature of the relationship between housing and land. House prices and land values are causally related and jointly determined. [14]

F3.5 Land values in major New Zealand cities and high-growth areas have increased significantly since the middle of the last decade, both in nominal terms and as a share of total property values.

F3.6 Restrictions on land use, and resulting high land prices, encourage the production of larger and more expensive housing.

3.4 The demand for housing and the responsiveness of supply

The supply responsiveness of the housing market influences the extent to which an increase in the demand for housing leads to more housing or to higher housing prices (Gyourko, 2009).

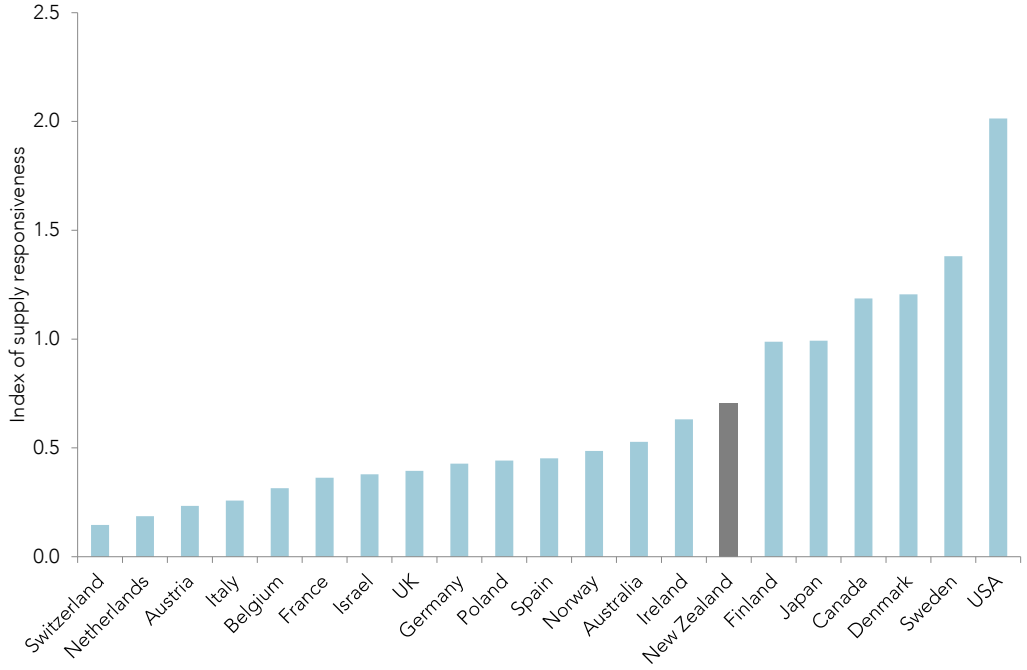
Supply responsiveness is determined by a number of factors, including the constraints of local geography, the ability to service land with infrastructure to support new housing and the extent to which the construction sector can gear up to build the housing demanded. However, it is restrictions on land supply as a result of zoning and planning rules that have been found to be responsible for housing being 'inelastic' in supply in many countries. Land use regulation that restricts housing supply has been reported in studies by Titman (1985), Mayer and Somerville (2000), and Malpezzi and Maclennan (2001) in the United States; Bramley (1993) and Evans (1996) in the United Kingdom; and Vermeulen and Rowendal (2007) in the Netherlands. Some studies have compared regulatory controls across countries. For example, Mayo and Sheppard (1996)

[14] In urban economics theory, the assumption is that residential land should cost more in desirable locations because households are willing to pay more for housing services in these locations (Alonso, 1964; Muth, 1969; Mills, 1972). Therefore, high residential land values are the causal effect of a high demand for housing services. On the other hand, in a standard Marshallian demand and supply framework, when an increase in the cost of residential land occurs, housing prices should move in the same direction. Kim et. al. (2008) studied the causal relationship between house prices and residential values for 27 US metropolitan statistical areas over the period 1985–2004. For 20 of the metropolitan statistical areas, causality runs both ways.

compared housing supply in Malaysia, Thailand and Korea, each with very different approaches to the controls on development.

Sánchez and Johansson (2011) show that the responsiveness of housing supply to changes in price varies across the countries for which data is available (Figure 3.12). Their analysis shows that new housing supply tends to be relatively flexible in North America and some Nordic countries, while it is more rigid in continental European countries and in the United Kingdom. New Zealand's housing market appears to be moderately responsive to a change in prices, but an increase in demand for housing in New Zealand still leads to a proportionately larger increase in housing prices than in new house construction.

Figure 3.12 Supply responsiveness of housing to price changes, selected countries



Source: Sánchez & Johansson, 2011.

Note:

1. Estimates of the long-run price-elasticity of new housing supply are derived from a stock-flow model of the housing market that is estimated with an error correction framework. The estimation period is from the early 1980s to the mid-2000s.
2. Where supply elasticity is equal to one, a 1% increase in the price of housing will result in a 1% increase in supply. Where the supply elasticity is greater than 1% (as is the case in Canada, Denmark, Sweden and the United States), a 1% increase in price will see the housing supply increase by more than 1%. With a long-run supply elasticity of less than 1%, an increase in the demand for houses in New Zealand is estimated to lead to a proportionately larger increase in house price than in new house construction. However, New Zealand performs rather better than many European countries and the United Kingdom.

International comparisons, such as those presented in Figure 3.12, however, can belie significant within-country differences. Figure 3.12 shows that in the United States housing supply is very responsive to price changes, with a 1% increase in price resulting in a 2% increase in supply. But Gyourko, Saiz and Summers (2008) find large differences in regulatory restrictiveness across the United States.

Their Wharton Residential Land Use Regulatory Index (WRLURI) compares the relative restrictiveness of land use regulation across the United States, suggesting that the responsiveness of supply also varies across states.

> While Hawaii is the most heavily regulated state in our sample, that is exclusively a Honolulu effect. Among states with relatively large numbers of communities in our sample, the Northeast dominates the most highly regulated slots, with Massachusetts, Rhode Island, and New Hampshire having WRLURI values that are about 1.5 standard deviations above the national average. The communities in the mid-Atlantic states of New Jersey and Maryland are the next most heavily regulated on average according to our overall index measure, with Washington state, Maine, California, and Arizona rounding out the top ten. The bottom ten states with the least regulated communities on average are all from the south or Midwest (plus Alaska). (Gyourko, Saiz & Summers, 2008, p. 695)

While housing supply might be responsive to changes in the price of housing in a country overall, within-country variations in supply responsiveness can be large, as a result of differences in land-use regulation in different localities.

F3.7 Although New Zealand's housing market is moderately responsive to changes in prices compared to other countries, an increase in demand for housing leads to a proportionately larger increase in housing prices than new house construction.

F3.8 Variation in the responsiveness of housing supply between different cities is likely to be a reflection of different land-use regulatory settings.

3.5 How does the planning framework respond to the demand for land?

In New Zealand, councils work within the planning framework set in statute and described in Chapter 2. The supply response to the demand for housing is determined by a policy and political process that attempts to reconcile existing community expectations and aspirations for the type of development and urban form that the city and region deem desirable, with projections of future population growth. Decisions are then made about the locations where new residential development will be supported, with plans for how and when residential land will be serviced with infrastructure. Box 3.1 provides an example of how this process works in the western Bay of Plenty.

Box 3.1 **Approach to urban land supply**

The approach to future urban land supply occurs in a number of stages as described by Tauranga City Council (TCC) and SmartGrowth (the western Bay of Plenty subregion) below.

Population projections

> The sub-region has been an area of rapid population growth since 1950. The population is projected to be 219 192 by 2033 and 256 696 in 2063. (sub. 27, p. 2)
>
> Tauranga has had one of the fastest population growth rates of any area in New Zealand for many decades. Tauranga's population grew from 66 731 in 1991 to 121 700 in 2014. This population is expected to grow to over 160 000 by 2033 and close to 200 000 by 2063 according to projections produced by the National Institute of Demographic and Economic Analysis (NIDEA) based on the 2013 census results. (sub. 47, p. 2)

Setting out where and when development will occur

> SmartGrowth takes a staged approach to land use and infrastructure which includes the use of urban limits as a planning tool to identify where urban development is expected to take place. The sub-region like many other cities and regions has identified certain areas where urban development will be supported and other areas where it is not. (sub. 27, p. 2)

Zoning land to meet projected population growth and planning when the land will be serviced by infrastructure

> The sub-region's sequencing/urban limits policy and maps identify land that can be developed for urban purposes now as well as land that is anticipated to be re-zoned for urban development in the future as far out as 2051. (sub. 27, p. 3)
>
> TCC has recently updated its calculations of land supply for housing. Based on the council's adopted growth projections produced by NIDEA, Tauranga currently has between 10 and 11 years of zoned greenfields supply. The vast majority of this supply is serviced and available for current development or will be serviced within the next three years based on the council's capital works programme. (sub. 47, p. 3)

Source: SmartGrowth, sub. 27; Tauranga City Council, sub. 47.

Councils are responsible for the amount and location of land available for residential use (through zoning and through the provision of infrastructure) and may also regulate the type of development that can be built. And while the supply response uses information such as population projections and projections of household composition (the underlying demand for housing) and how much land might be required to accommodate this growth, this approach does not use available price information that signals the effective demand for housing.[15] Prices provide information about where people want to live and the type of housing they prefer.[16] Prices also signal the adequacy of land supply.

There is a disconnect between the demand for housing and the supply response of the planning system – a disconnect that can persist over long periods unless some mechanism is available to bring the market back into equilibrium. Currently, high house and land prices are a function of both strong demand and a persistent shortage of supply to meet it. However, it is also possible that the disconnect could result in more serviced land being made available for development than is demanded. For example Tauranga City Council reported experiencing static growth during the Global Financial Crisis, leaving the council with underused new infrastructure. A system that allocates land in the absence of vital signalling provided by price information is flawed. Paul Cheshire, Emeritus Professor of Economic Geography at the London School of Economics, argues that in New Zealand (like in the United Kingdom) "there is an inbuilt logical inconsistency, indeed, even economic illiteracy, in how the planning system works to supply housing space" (pers. comm.).

Where the planning system allocates a limited supply of land in a particular location – including determining when the infrastructure to service that land will be provided and what types of dwellings can be built on the land – landowners and developers can behave like local monopolists (Chapter 4). They have an incentive to delay development in the expectation that prices will continue to rise. Where there is high demand and scarce supply, they are also able to drip feed the scarce resource to keep section prices high. The Commission has been told that councils also have an incentive to zone land that has fewer landowners, as it is easier for a council to negotiate with fewer parties over the provision of infrastructure.

F3.9 A fundamental disconnect exists between the demand for housing and the supply response of the planning system, which essentially is a policy and political process. Where land use regulation prevents an adequate supply response to the demand for housing, the price of housing increases.

F3.10 The planning system is not responsive to price signals that provide information about the location and type of housing that people demand, and about the available supply.

F3.11 Where demand for land exceeds the supply allocated through the planning system, landowners and developers act like local monopolists. They are able to restrict the supply of zoned and serviced land to maintain high prices.

Local variation in the supply response

Land use policy and regulation determines the supply of land. Because councils have considerable autonomy in determining land use policy and regulation in New Zealand and land-use planning reflects local circumstances and community values, it would not be surprising to find considerable variation across the country. The variation could show up in the types of land use regulation adopted or the stringency with which specific rules are applied. However, no comparable data on land use regulation, that might restrict the supply of land for housing, is currently collected.[17] Some detailed local information is available in council

[15] Projections of this type are very vulnerable to the assumptions made so they may not provide a good basis for future planning.

[16] Auckland Council has undertaken a survey of housing preferences (Auckland Council, 2015), yet it is market transactions that reveal actual preferences.

[17] The Ministry for the Environment collects information from local authorities on process aspects in the implementation of the Resource Management Act (RMA), such as the time taken to approve plan changes and obtain resource consents (MfE, 2014). The two-yearly Ministry for the Environment RMA survey of local authorities is being replaced by an RMA national monitoring system. Even so, the system will not capture the stringency of land use regulation across local authorities.

District Plans about council rules and regulations and where they apply. But a comparison of specific rules, such as height restrictions or minimum lot sizes across councils is problematic, as different councils have different zoning categories and may use different types of rules to achieve the same objectives. Plans also tend to contain only limited information on the stringency with which different rules are applied in practice (eg, the proportion of developments that council allows to vary from District Plan requirements).

F3.12 No consistently collected or comparable data is available on the stringency of land use regulation in New Zealand.

To better understand the extent of variation in practice across councils in New Zealand, the Commission contracted the New Zealand Institute of Economic Research (NZIER) to survey New Zealand's fastest-growing councils about aspects of land use regulation within their jurisdictions using the WRLURI developed by Gyourko, Saiz and Summers (2008). The methodology recognises that restrictiveness in the ability to use land for housing is not just about the rules around where and how land can be used; it is also how the rules are applied and the process requirements associated with applications, in particular, delays. The index is able to capture aspects of the regulatory behaviour of different councils into a single measure.

Ten councils were invited to participate in the survey.[18] The responses of the nine councils that responded were used to construct an index of the stringency of land use regulation using the weights used in the WRLURI.[19] An important caveat is that the WRLURI methodology relies on councils self-reporting their responses to the questions. Responses are therefore subjective and may be subject to inconsistencies, bias or strategic responses.

The WRLURI captures three components of regulation:

- the rules – such as minimum lot size requirements or requirements on developers to provide dedicated open spaces;
- the characteristics of the jurisdiction that can influence development – such as the influence of local community groups, local opposition to growth and the council's budget constraints; and
- process considerations – such as delays in getting development approved.

While Gyourko, Saiz and Summers (2008) combine all three components into a single index, the NZIER study treated the responses relating to delays in getting consents and approvals for development separately. Gyourko, Saiz and Summers rely heavily on the argument that delays are the result of complex and wide-ranging rules and therefore are a good indicator of regulatory stringency. This factor may not be valid in New Zealand, which has a statutory requirement to process resource consents within 20 working days.

Rules and characteristics that influence land use regulation

Figure 3.13 presents an index of the components relating to local rules and regulations and the characteristics that can influence development for the nine New Zealand councils.

"Rules" summarises the responses to questions about specific land use regulations, such as minimum lot sizes, requirements to provide affordable housing, and charges that developers may incur for infrastructure development and charges instead of providing open spaces. On this measure, Waikato District Council, Whangarei District Council and Wellington City Council have less stringent rules.

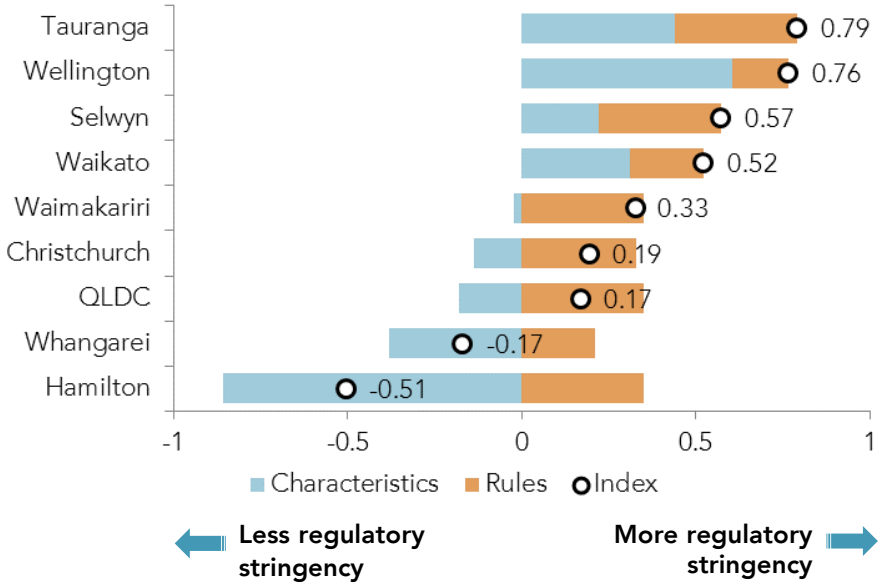
"Characteristics" summarises survey responses about the influence of different groups in the planning, zoning and approval of housing developments. Wellington City Council and TCC, and Waikato and Selwyn District Councils report characteristics in this sub-index that are likely to lead to them being more stringent in

[18] Responses were received from Christchurch City Council, Hamilton City Council, Queenstown Lakes District Council, Selwyn District Council, Tauranga City Council, Waikato District Council, Waimakariri District Council, Wellington City Council and Whangarei District Council. Auckland Council declined to participate.

[19] The full report (NZIER, 2015a) is available, along with raw council responses, on the Commission's website. While the NZIER methodology (survey questions and weightings of responses) followed as far as possible the methodology of the WRLURI, some adjustments were made to account for the New Zealand context.

their application of land use regulation.[20] Community pressure is reported to be highest in Wellington City and the Selwyn District. The Selwyn District Council and Tauranga and Wellington City Councils report strong regional council involvement in planning. The Queenstown Lakes District Council (QLDC) reported that the Courts are relatively more involved with planning. TCC reports relatively high values for the influence of the city budget on residential development. TCC and QLDC note particularly strong citizen opposition to developing apartments and townhouses.

Figure 3.13 Variation in the stringency of land use regulation across nine New Zealand councils



Source: NZIER, 2015a.

Note:

1. The index combines the impact of "rules" and "characteristics" sub-indices formed from responses to particular survey questions. The responses to the survey questions are weighted according to the weights within the WRLURI. Positive index values indicate more stringent land use regulation, while negative values indicate less stringent land use regulation.

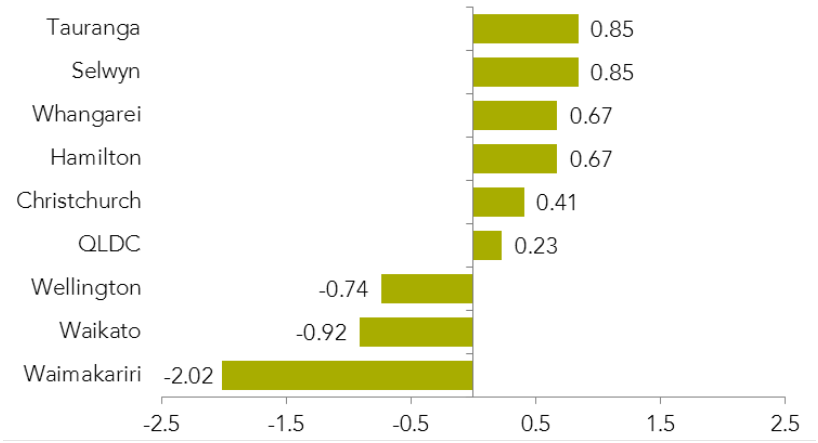
In combining the "rules" with "characteristics", the overall picture reported in the responses is one of considerable variation between councils. According to the index, the Waikato and Selwyn District Councils, and Wellington Council and TCC have the more stringent regulation, Waimakariri District Council sits in the middle of the bunch, and Christchurch City Council, QLDC, Whangarei District Council and Hamilton City Council are the least stringent.

Delays in acquiring approval for development projects

The survey asks several questions about delays in the consenting and approval process. Five of the nine councils report the statutory time for processing resource consents (20 working days), but differences are large where they exist. The fastest two territorial authorities complete consents in less than a quarter of the time of the five slowest. Wellington City Council and Waimakariri District Council report much shorter timeframes for attaining a consent than the other council respondents. Selwyn reports a relatively short timeframe (less than three months) for the amount of time between approving an application for subdivision and issuing consent across a range of housing types. Figure 3.14 summarises the differences across councils.

[20] NZIER (2015a) provides more detail on the survey responses relating to council characteristics.

Figure 3.14 Delays in acquiring approval for development across councils



Source: NZIER, 2015a.

Note:

1. The delay index is constructed by taking the response of average number of days to the question "What is the current average length of time required to complete resource consents for residential developments in your community?" and the response of average number of months to the question "For apartments and townhouses, what is the typical amount of time between application for rezoning and issuance of a building permit for development?" The sub-index is normalised to have a mean of zero. Delay has a relatively high weight in the WRLURI, but is excluded from the stringency index reported in Figure 3.13.

F3.13

A survey of fast-growing New Zealand councils found universally restrictive land use rules, but considerable variation in the overall stringency of land use regulation. This variation is due in large part to:

- differing levels of influence over planning by the courts, regional councils and community groups; and
- differences in the time taken to get approvals for development.

3.6 The political economy of local planning

Perkins and Thorns (2001) noted significant regional and local variation in the way the (then new) planning instruments under the Resource Management Act 1991 (RMA) were used. They found that "local politics have been a crucial medium shaping the planning outcomes" (p. 653). This section looks at the political economy of local planning.

Existing homeowners benefit from more restrictive land supply

For most New Zealanders, home ownership entails a significant accumulation of equity into one asset (the house) and is a commitment to living in a given community for a reasonable period of time (compared to renters). Policies that restrict the supply of effective land for housing are beneficial for homeowners because they increase the value of that asset. Policies that have the effect of preventing intensification are seen to be beneficial to homeowners because they preserve the character and amenity of the community the homeowner has chosen to live in – many homeowners value peace, quiet, privacy and light.

NIMBYs ("not in my backyard") are often described as merely opposing change. All change involves some loss, including disruption to the status quo, and uncertainty. But change can also bring benefits. Fischel (2001) argues that NIMBYism is a rational strategy for homeowners, even where proposed developments are likely to be beneficial to the homeowner, because of that uncertainty. Unable to insure against decreases in property prices and with their savings concentrated in one major asset, homeowners will be risk-averse in opposing development projects even if the expected impacts are benign or positive. Homeowners, particularly those who are highly leveraged, will be conservative in managing risks to their investment.

People's opposition to development, even where a rational calculation of the costs and benefits would suggest that they should welcome development, or be more neutral in their reaction, could be the result of the endowment effect (Thaler, 1980). The endowment effect has been observed in a wide range of different populations using different goods (Hoffman & Spitzer, 1993). People appear to value what they already have simply because they already have it, even favouring what they have over what they might gain, despite the gains being demonstrably higher. One explanation for the endowment effect is that people are simply loss-averse. People tend to prefer avoiding losses to acquiring gains. It could also be that people have a status quo bias. People tend to have a preference for the current state of affairs and perceive any change from the status quo negatively rather than positively.

Together, these characteristics mean that the potential negative consequences of development loom much larger in the minds of homeowners than the potential positive consequences, and contribute towards existing homeowners opposing change. TCC submitted that

> [m]uch of the NIMBY attitude seems to stem from a fear of change and often a perception that development may adversely affect property values. Given that the 'family home' is generally a household's most significant and often only asset of any note these attitudes are understandable and rational on an individual basis, but probably are not in the national interest. (sub. 47, p. 12)

In addition, regulatory and funding policies, that make housing more scarce overall, increase the value of homes to the direct benefit of homeowners.

A 2014 study comparing UK local authorities found that areas with higher rates of home ownership had smaller increases in the number of new houses between 2001 and 2011. On average the number of houses in a local authority area grew by 8.75% over this period. But a 10 percentage point increase in home ownership was associated with 1.2 percentage point lower growth in the number of houses. This shows a statistically significant negative relationship between rates of home ownership and new housing supply in the United Kingdom (Coelho, Ratnoo & Dellepiane, 2014).

F3.14 Restricted housing supply will tend to inflate the value of existing homes. Existing homeowners have an incentive to be risk-averse in opposing developments that could affect the amenity of their neighbourhood and the value of their home.

Inquiry participants told the Commission many times in engagement meetings that some councils consider growth and development to be an expensive inconvenience. One submitter argued that rates control is the dominant concern of local government:

> Elected members – and therefore staff – are strongly incentivised to ensure that uncertainty about future council plans is eliminated and that rates only rise within a narrow pre-determined range.
>
> … following these incentives may mean a council looking after its own interests at the expense of the community's… councils have a very narrow view of the world and are not responsible for the overall well-being of their communities. In fact they act very logically within the system in which they operate.
>
> … The general political incentives that apply in local government would suggest that spatial design considerations follow the need to minimise any rates impact from infrastructure development in support of population growth. So it would be just as valid to think of the planning and development system as a means of constraining infrastructure development for the political advantage of existing elected members. (Donald Ellis, sub. 44, pp. 3–4, 6)

Where growth is a burden on local government, rather than a boon, existing homeowners will have incentives to oppose development to control rates. In reviewing 11 land supply and planning systems, the Joseph Roundtree Foundation concluded that

> [a] lack of infrastructure – and indeed services more broadly – can not only stall development, but acts as a disincentive to existing residents to support new housing. (Monk et al., 2013, p. 37)

These sentiments have been expressed by the Mayor of Queenstown Lakes in the Otago Daily Times:

> The reality is that, while we welcome development and the growth that it generates, existing ratepayers should not have to foot the bill for new costs created by developers…

> Our message is simple – if you don't want to pay more as a ratepayer for existing or future community infrastructure, then you need to make your views known. ('Government change', 2014)

F3.15 Existing homeowners have an incentive to oppose development that involves council expenditure on infrastructure that does not benefit them but will be recovered through general rates.

Geography can also be "one of the most important determinants of housing supply inelasticity: directly, via reductions in the amount of land availability, and indirectly, via increased land values and higher incentives for anti-growth regulation" (Saiz, 2010, p. 1 286).

Saiz calculates the amount of developable land in US cities that is lost to geography (including large bodies of water within a 50 km radius of each city) and compares it to the WRLURI, housing prices and demographic growth. Physical land scarcity, such as in cities situated by harbours, is associated with stricter regulatory constraints to development:

> Empirically, I find that antigrowth local land policies are more likely to arise in growing, land-constrained metropolitan areas and in cities where pre-existing land values were high and worth protecting. (p. 1 255)

> In sum, the regulation equations … demonstrate that higher housing prices, demographic growth, and natural constraints beget more restrictive land-use regulations. … The impact of constrained geography is larger, especially in larger cities. For example, in a metro area with average regulations and a population of one million, the interquartile change in the share of unavailable land (from 0.09 to 0.38) [due to geographic constraints] implies a 50% reduction in supply elasticity. (p. 1 280)

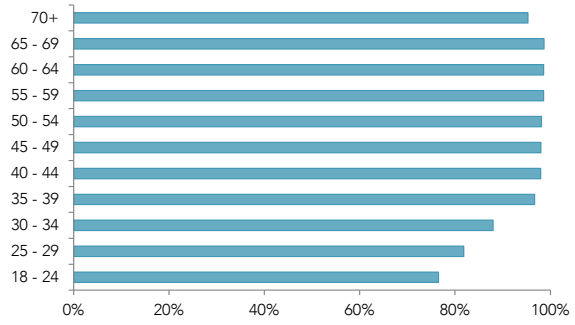
Geographic constraints to development lead to higher property prices earlier in a city's development because of the physical scarcity of land. These higher property values in turn encourage owners to support stricter regulatory constraints on development to protect the amenity of neighbourhoods and the value of their properties.

F3.16 Cities that are subject to geographic constraints to development (eg, near to a large body of water) show less supply responsiveness to housing demand, both because of the geographic constraints and because these constraints encourage higher land prices, strengthening the incentive for existing owners to support anti-development regulations. This is particularly true in larger and faster-growing cities.

Homeowners are more likely to participate in local political processes

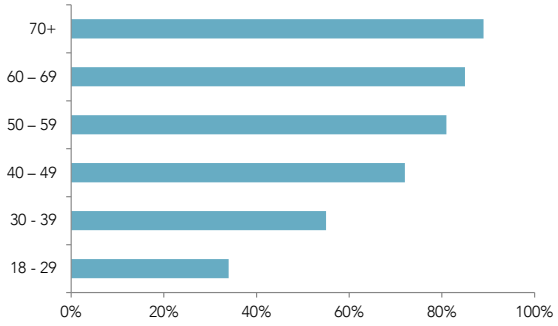
Although turnout in recent local body elections in New Zealand has been trending down and fell to 39% in 2013, older people are more likely to be enrolled than younger people and more likely to vote in local elections (Figure 3.15 and Figure 3.16). Further, a strong correlation exists between age and home ownership in New Zealand (Figure 3.17).

Figure 3.15 Voting enrolment by age



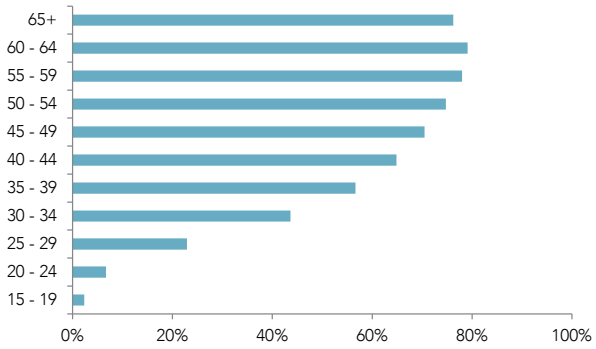
Source: Electoral Commission, 2014.

Figure 3.16 Voter rates by age



Source: LGNZ, 2013a.

Figure 3.17 Proportion of people who own a home by age



Source: Statistics New Zealand, 2013 census data.

The significantly higher voter participation of older groups in local government elections, and the markedly higher home ownership rates among older New Zealanders, means that homeowners are likely to be the dominant voters in local government elections.

Koff and Sen (2005) explain that as homeowners gain from increases in property values, they have an incentive to exert greater civic effort (which includes voting in local elections) to improve the quality of their properties and community so as to raise local property values.

The outcome of political processes will reflect the interests of those who participate

The dominance of homeowners in local government political processes could help to explain a number of the characteristics of land use regulation and the provision of infrastructure discussed in subsequent chapters of this report. For example:

- the existence of urban containment policies and density controls (Chapter 5); and
- a reluctance to use available funding sources resulting in the rationing of growth-enabling infrastructure (Chapters 8, 9 and 10).

Public choice theory suggests that political processes will serve the interests of a theoretical voter at the midpoint of a political spectrum (median voter theory – eg, Bergstrom & Goodman, 1973) or large groups with a homogenous set of interests (interest group/probabilistic voting theory – eg, Austen-Smith, 1987). The interest of homeowners in restricting the supply of new housing is readily explained by these models:

> While welfare economics assumes that government decisions are disinterested and wholly intended to maximise net social benefits, 'public choice theory' presumes that the decisions of politicians will be primarily determined by their wish to be re-elected. In practice this means that they will give greater weight to the benefits and costs affecting their most vocal constituents, and very little weight to those benefits and costs affecting the less vocal, or those who are not their constituents. (Evans, 2004, p. 199)

Modelling by Ortalo-Magné and Prat (2014) supports these theories, showing that cities will be smaller (approve less housing) than ideal, because in equilibrium the capital losses on housing experienced by existing residents more than outweigh any gains from lower future housing costs, even though all residents would be better off if the city was as large as possible. In particular, they find older homeowners suffer more of a loss from any drop in housing prices, and benefit less from any drop in future rents, because they will consume housing over shorter periods in the future. Dubin, Kiewiet and Noussair (1992) show a strong correlation between districts of San Diego with high home ownership rates, and districts that vote for growth-control measures.

The Urban Taskforce report (2009) said that one barrier to high-quality, larger-scale urban development was that

> delays in consenting come from NIMBY resistance [from] both people who live adjacent to developments, residents objecting to later development stages, and a presumption within the regulatory framework that people will be adversely affected by the development. (p. 17)

The removal of provisions that would have allowed higher-density development from the PAUP has been described as the result of lobbying by existing homeowners (Box 3.2).

Box 3.2 **Homeowners and density controls in the Proposed Auckland Unitary Plan**

The Proposed Auckland Unitary Plan (PAUP) released in September 2013 reduced the potential capacity of most of the Auckland isthmus and North Shore to carry dwellings compared to earlier drafts of the plan, through the creation of a Mixed Housing Suburban zone. Commentators uniformly attributed the down-zoning to lobbying by existing homeowners:

> Auckland developer Mark Todd has emailed councillors to say they have little understanding of how to motivate the private sector to build smaller, more affordable housing in places people want to live. His company, Ockham Investments, had been working on proposals for three large sites of 2, 3 and 9ha sites for up to 1000 high quality one, two and three-bedroom homes. "What a waste of time, because if the unlimited density is removed, they will be non-complying under the new plan and hence not eligible to receive preferential consent processing. What is happening is a real tragedy. Yet again, the older, wealthy, landed generation is behaving in a short-sighted, selfish manner. This is a huge lost opportunity," Mr Todd said. (Orsman, 2013)
>
> Auckland Community Housing Network chairman Peter Jeffries says Auckland councillors dealt "a disastrous blow" to young couples seeking their first house by caving in to an intense campaign by existing homeowners against high-density housing in almost all suburban areas. (Collins, 2014)
>
> The draft plan was designed to create greater housing choice. But this has been scaled back significantly during public consultation. Residents want to preserve their lot, but it comes at a cost to future Aucklanders. New height limits have been introduced in many suburbs, while existing height limits have been tightened, as have density constraints which means it will be harder to gain access to attractive suburbs. Present homeowners benefit by such policies, as restrictions create scarcity and increase house prices. But for the expected one million new residents over the next 30 years or for the poor seeking access to the city centre, the news is bad. (Cooper, 2014)

The Property Council submitted that the planning system needed to

> account for the needs of the region/district's future inhabitants and those who might not engage in the planning process. The current system tends to favour existing home owners (NIMBYs) over those looking to get on the housing ladder (young people and future residents) – eg in Auckland officials had to significantly down zone from their draft unitary plan due to pressure from existing home owners. (sub. 33, p. 4)

Local politicians will find it particularly difficult to resist the preferences of existing homeowners where those owners organise into residents' associations, where ward voting makes councillors responsive to particular communities, or where community/local boards are formally established to act as a voice for an area.

F3.17 Groups that have high home ownership rates have higher rates of participation in local government elections. The influence of homeowners in local government elections and consultation processes promotes local regulatory and investment decisions that have the effect of reducing land supply for housing.

3.7 The national interest

This chapter began with the proposition that allowing cities to grow is good for New Zealand. Yet while the benefits of growth accrue to the economy as a whole, the costs of growth are concentrated locally. Where decision making about whether to accommodate growth is made at the local level, it can result in a lower level of growth or a slower pace of growth than would be optimal from the perspective of the national economy. A council's policies are particularly important. Capturing the productivity benefits that large and growing cities offer their residents and the wider economy puts a premium on good infrastructure planning, and an adequate supply of land for housing.

The political economy of local planning, however – specifically the influence of existing homeowners on land use regulation and on infrastructure spending – can restrict the supply of land for housing and limit expenditure on the infrastructure required to support urban growth. The implications of local decision making on the nation's wellbeing can be significant. The failure to provide an adequate supply of infrastructure-enabled land to meet the demand for housing results in escalating housing prices that has impacts on individuals, society and the wider economy. Central government ultimately bears the risks and costs associated with these local decisions. Some of the impacts and consequences are discussed below.

Housing market impacts: High prices and restricted choice

Figure 3.18 depicts the percentage of households that spend more than 30% of their disposable income on housing in New Zealand.[21] The average share of disposable household income spent on housing is high in New Zealand compared to many other OECD countries (Figure 3.19).

Land use regulation such as height restrictions, minimum lot sizes and maximum site coverage prevent the construction of smaller and less expensive dwellings on smaller parcels of land closer to the centres of cities. Households can be restricted in their choice of housing type in the location they prefer. Restrictions can affect older people who might prefer to downsize, but are unable to buy a suitable small home or townhouse in the area where they currently live.

An increase in the price of housing will be felt as a rise in property values for existing property owners and in greater difficulty in making the first rung on the property ladder for people without property. This shows up in declining home ownership (Figure 3.20) and the rising importance of the private rental market.

In its inquiry into *Housing affordability*, the Commission (2012a) took the view that it is desirable that the housing market work in such a way as to maximise the range and quality of housing available for all New Zealanders regardless of income or tenure choice. The Commission concluded that to achieve housing affordability a housing market must have both depth and diversity of housing typologies and tenure choices.

Since the early 2000s, renting has been a more accessible option for many households. Rent increases have been significantly slower than real house price inflation, with the ratio of rents to house prices declining as a result. However, as the Commission's *Housing affordability* report explained, renting in New Zealand can be insecure and the available stock may be of poor quality. Renters consistently report lower satisfaction with the quality of their housing than owner-occupiers (Figure 3.21).

Social impacts: A greater impact on the least well-off

A number of studies have shown that more stringent land use regulations have a disproportionate effect on the less well-off. A large US study quantified the impact of regulatory restrictiveness on the low end of the rental and housing market in US cities (Malpezzi & Green, 1996). Bottom quartile rents in metropolitan areas with more stringent land use regulation were 20% higher than in less stringently regulated areas and bottom quartile house values were more than 60% higher. The largest price effects of restrictive land use regulations occurred in the market for lower-value housing.

In work on the impact of Auckland's Metropolitan Urban Limit, Zheng (2013) found that upward pressure on residential land prices on Auckland's urban fringe had a much larger impact on prices at the lower end of the housing market:

> Lower priced land is more often found further out on the fringes of cities. … When an artificial 'fence' delineates residential land from non-residential land on the urban fringe, it limits the supply of lower priced land, with a resulting impact on prices at the lower end of the housing market. (p. 10)

The effect is a combination of an urban limit and other regulatory constraints that limit the density within the city. Density controls tend to result in less well-off people moving out towards the urban fringe, while the urban limit restricts the supply of lower-priced land on the fringe. This increases the price of housing at the lower end of the market.

[21] Housing costs are a function of the capital cost, the size of the mortgage that must be raised and mortgage interest rates. If the cost of housing rises faster than the growth in incomes; the share of a household's spending on housing will increase. This spending includes both rent and mortgage expenses.

Figure 3.18 Share of households that spend more than 30% of their disposable income on housing in New Zealand

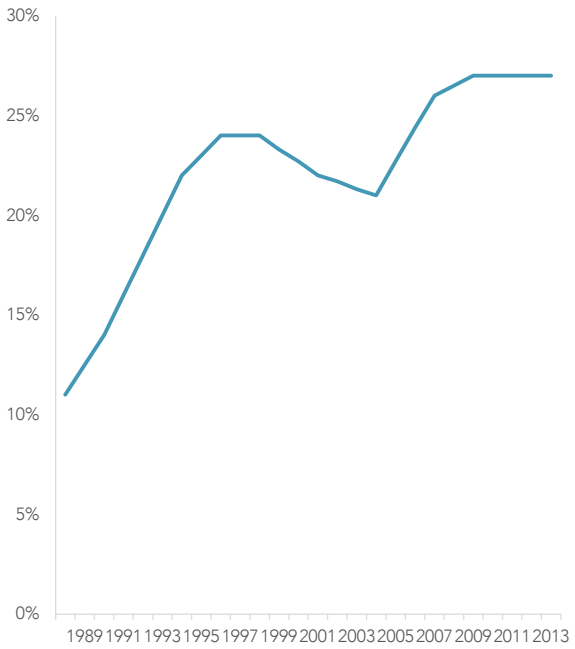


Figure 3.19 Average share of disposable household income spent on housing: selected OECD countries, 2012

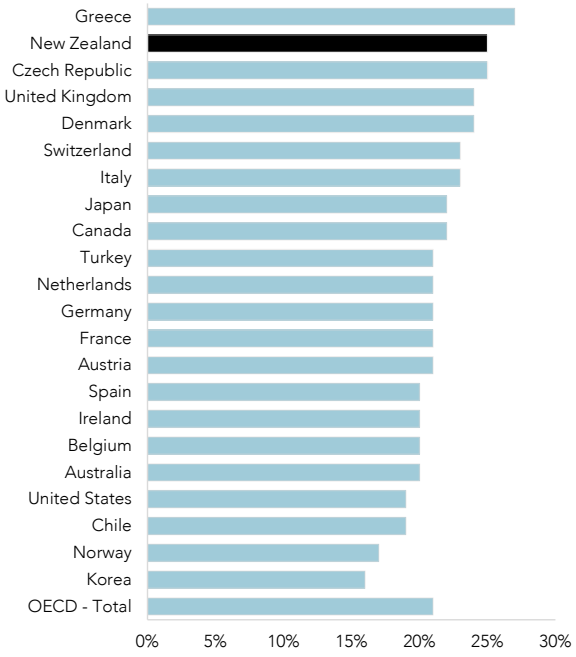


Figure 3.20 Percentage of households that owned or partly owned their dwelling or held it in a family trust

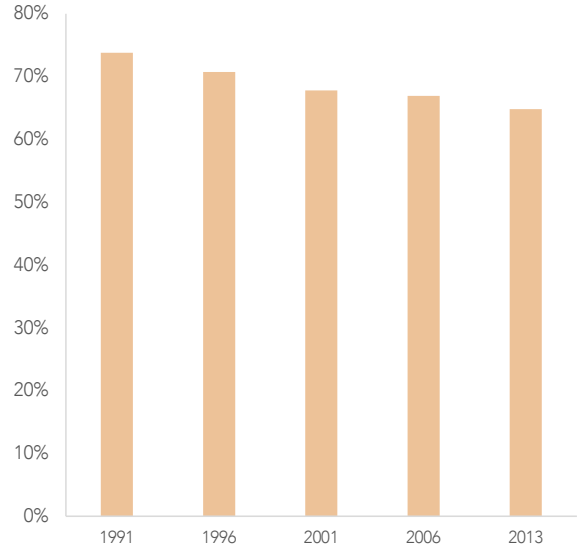
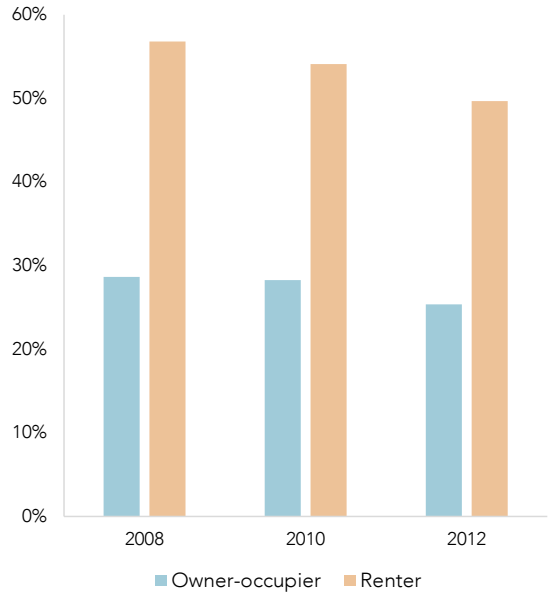


Figure 3.21 Percentage of people reporting major problems with their housing, by tenure type



Source: Figures 3.18 and 3.19: Statistics New Zealand, 2014; Figures 3.20 and 3.21: Productivity Commission analysis of Statistics New Zealand data.

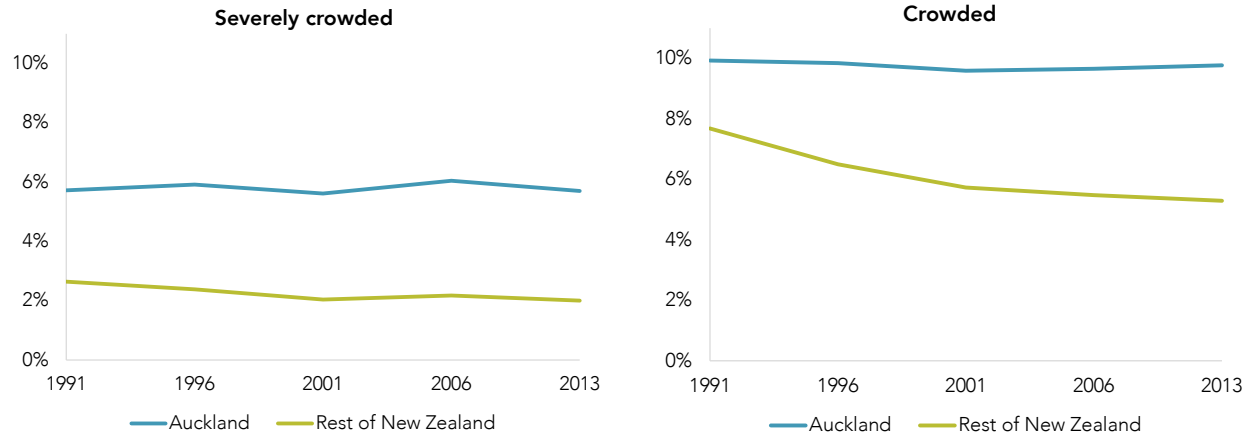
Notes:

1. For Figure 3.19, the reference year is 2012, with the exception of 2011 for Japan, New Zealand and Switzerland, and 2010 for Canada.

One manifestation of rising housing costs and a shortage of housing is household crowding. Although household crowding in New Zealand has declined over time (Statistics New Zealand, 2012), it has remained high in Auckland (Figure 3.22). This is reflected in larger average household sizes, inadequate housing supply in the city and higher housing costs. New Zealand has a higher crowding rate than the United Kingdom, Canada and Australia, but a lower rate than the United States (Goodyear & Fabian, 2012). Around half of people in crowded households in New Zealand in 2013 lived in Auckland.

Household crowding has been estimated as a leading cause of the more than 1 300 hospital admissions each year from infectious diseases. Māori and Pacific Islands people are overrepresented in both crowding and infectious disease hospitalisation figures (Baker et al., 2013).

Figure 3.22 Share of New Zealand's population living in crowded and severely crowded housing, 1991–2013



Source: Productivity Commission analysis of Statistics New Zealand data.

Note:

1. Crowding is defined using the Canadian National Occupancy Standard (CNOS). CNOS defines a household as crowded if it fails to meet all of the following characteristics: (1) Children aged under 5 may share a bedroom, but children aged 5 to 18 should only share a room if they are of the same sex. (2) Couples and people aged over 18 should each have their own bedroom. (3) No more than 2 people should share a room. "Crowded" means that one extra bedroom is needed to meet the CNO standard. "Severely crowded" means that two or more extra bedrooms are required to meet CNOS.[22]

Ultimately, government bears part of the cost where unaffordable housing leads to higher demands on the welfare system to meet housing needs (through, for example, rent subsidies and state-sponsored social housing). Government expenditure on housing assistance is significant, with yearly public financial support to assist with the housing costs of individuals estimated to exceed $2 billion in 2015/2016.[23]

A particular issue is the impact of government demand-side assistance when the supply of new housing is constrained by restrictive land use regulation. It might be expected that rental subsidies such as the Accommodation Supplement would facilitate new household formation and increase the demand for housing. Where the supply of housing is inelastic, the increase in demand could feed into higher house prices and rental prices at the lower end of the housing market.

As Grimes and Hyland (2013) explain:

> It is possible that housing assistance, provided by the Government through the accommodation supplement, may influence housing demand (and house prices) either through the "ownhome" or "renting" transfer categories. The former category provides assistance to lower income house owners to help meet mortgage payments. The latter provides assistance to lower income renters, which may induce landlords to bid higher prices for houses and then seek higher rents facilitated by renters' increased ability to service a higher rental. (p. 21)

It appears that the dynamic is quite nuanced. The overall supply of housing in New Zealand is relatively inelastic in response to demand. And housing at the low end of the housing market is arguably more inelastic in supply than higher value housing, for the reasons outlined in section 3.3.

But the market is very elastic with respect to new rental accommodation. This does not mean that new rental accommodation is quickly constructed; it is just that the existing stock of housing can shift quite readily between owner-occupation and renting at the margin (Stroombergen, 2004; Grimes & Hyland, 2013). Where demand for rental accommodation increases through a demand-side subsidy, landlords are induced to

[22] The definition of 'crowding' is therefore culturally defined according to cultural norms about bedroom sharing.

[23] Includes the KiwiSaver Homestart Grant and Community Group Housing MCA (Vote Building and Housing), Part Payment of Rent to Social Housing Providers and Accommodation Assistance (Vote Social Development).

increase their rental stock and houses can shift from owner-occupied to rental tenancy. The subsidy has the effect of increasing the price of homes at the lower end of the housing market (a part of the market where first home buyers are also competing) as demand from landlords bids up the price.[24]

F3.18 Stringent land use regulations have a disproportionate impact on the less well-off and contribute to the unaffordability of housing. Demand-side assistance for homeowners and renters puts pressure on public finances. Restrictive land use regulation means that demand-side measures, such as rent and home owner subsidies, lead to increasing housing prices rather than a greater supply of housing at the low end of the housing market.

Impact on wealth inequality

Recent research by Rognlie (2015) suggests that, in many countries, housing plays a much more important role in income, wealth generation, and inequality than it once did. Rognlie's work comes out of the debate re-ignited by Thomas Piketty (2014) about the relative income shares between labour and capital. The central thesis of Piketty's *Capital in the Twenty-First Century* is that the share of aggregate income of those who own capital is increasing, while the share of those who generate income from their labour is decreasing. This matters to the extent that capital income, which tends to be highly concentrated, can contribute to inequality.

Rognlie makes several contributions, but as a purely descriptive matter he shows that the recent behaviour of income shares is misunderstood. Rather than experiencing a steady rise, the net capital share for large developed economies has followed a U-shaped trajectory in the post-war era, and its long-term expansion originates entirely in the housing sector. This implies that Piketty's concern about a rising capital share being concentrated in the hands of a few is unfounded, as home ownership is relatively broadly based. But it also raises concerns about the relative income share of those who own housing and those who do not. He concludes that "given the important role of housing, observers concerned about the distribution of income should keep an eye on housing costs" (p. 32). Rognlie goes on to note the particular concern that the rising capital share of income generated by housing may be as a result of land use regulation and other restrictions on residential construction.

Muellbauer and Murphy (2008) commented on the issue of the high cost of housing and inequality in the United Kingdom:

> This is seen in the pricing out of the housing market of people without pre-existing housing equity or family connections with such equity. This perpetuates disadvantage through the generations…. Another consequence of the rise in real house prices has been a redistribution of living standards between the generations – from those younger than their early thirties to older people. (p. 14)

Data limitations mean that Rognlie's analysis of the relative income shares between labour and capital cannot be repeated for New Zealand. However, analysis of the longitudinal Survey of Family, Income and Employment (SoFIE) by Le, Gibson and Stillman (2010) and updated analysis by the Productivity Commission (Figure 3.23) reveals that:

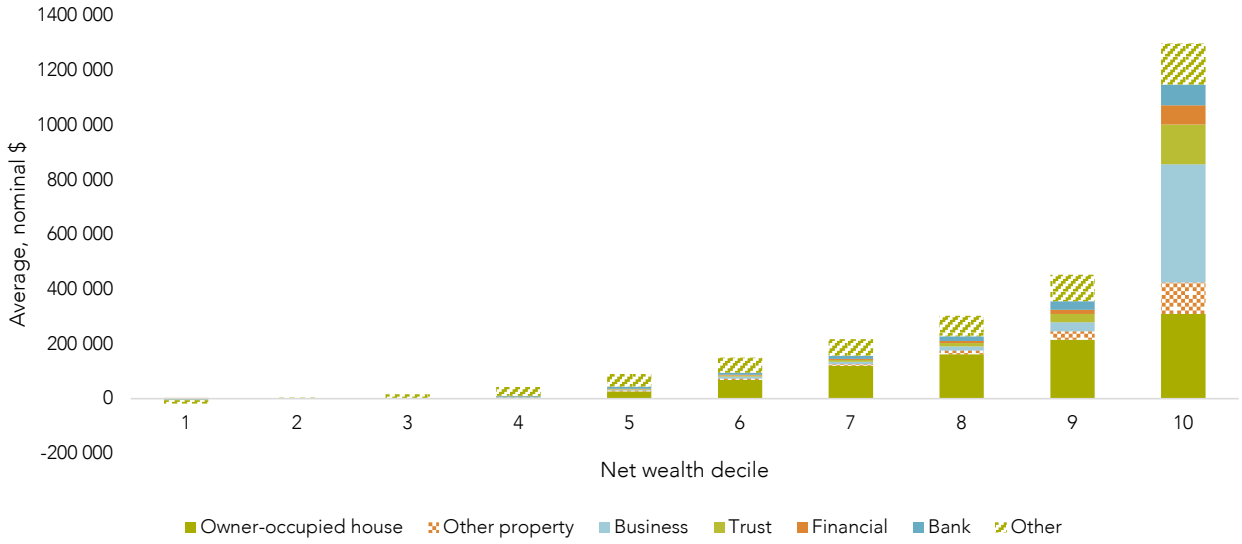
- The main asset of most New Zealanders is their home, with New Zealanders holding a similar proportion of their net wealth in property as individuals in other OECD countries (Le, Gibson & Stillman, 2010).
- Wealth is unevenly distributed. In 2010, the poorest 30% of the population had almost no wealth. About 20% of total wealth was shared by the bottom 70% of the population. By contrast, the top 20% of the population owned almost 70% of total net wealth, with the top 10% owning more than half of the total net wealth.
- Homeowners in New Zealand have higher net wealth than non-homeowners. The absolute increase in net wealth was higher for homeowners who owned a home throughout the entire period 2004–2010,

[24] First home buyer subsidies also serve to bid up the price of homes at the lower end of the market, with no real impact on supply.

compared to those who owned a home for only part of the period or those who were not homeowners over the period.

- Owner-occupied housing is not an important component of net wealth for those with low net wealth, as very few people in this part of the distribution own their own home. For those in net wealth deciles 5 to 9, housing makes up a significant share of net wealth. While the absolute amount of net wealth held in the family home is greatest for those in decile 10, owner-occupied housing is a less important component for this top decile because other assets account for a larger share of net wealth.

Figure 3.23 Average net wealth by decile 2010



Source: Productivity Commission analysis of Statistics New Zealand's Survey of Family, Income, and Employment data.

F3.19 Housing makes up a significant share of many New Zealanders' wealth. High housing prices have implications for the ability of some groups to accumulate wealth and for the distribution of wealth across the community.

Economic impacts: Risks to macroeconomic stability

The stock of residential housing, valued at about $768 billion, is the largest component of wealth of New Zealanders. Households also spend a significant share of their income on housing. Instability and poor performance in the land supply and development market can be transmitted to wider economic volatility and performance due to the links between house prices, credit availability, and household consumption and indebtedness.

Huang and Tang (2012) in a study of 300 US cities showed that restrictive residential land use regulations and geographic constraints are linked to larger booms and bust in housing prices. Evans and Guthrie (2012) developed a model to determine what fraction of actual price changes observed in 95 US cities over the period 1995–2010 could be explained solely by observed changes in construction costs, disposable income, interest rates and population. A key question is whether cities with constrained development opportunities due to geography and land use regulations experience much greater price volatility than less-constrained cities. They found that, for cities with relatively unconstrained development opportunities, housing prices could be predicted by changes in construction costs, disposable income, interest rates and population. Further, they observed changes in these variables cannot explain the boom and bust pattern observed in many other cities with constrained development opportunities. Importantly,

> [s]mall reductions in the long-run average level of the short-term interest rate and small increases in the long-run average growth rate in demand during the boom period generate large price swings in cities with constrained development opportunities, while leaving prices in cities with unconstrained development opportunities relatively untouched. (p. 1)

Creating an artificial scarcity in land incentivises speculation, and competition for land creates overly optimistic speculation. Milgrom and Weber (1982) point out that when people with varying beliefs compete for something of uncertain value, the winning bidder will be the person who has made the greatest upward error in estimating its value – what they call "the winner's curse". Tideman (2004) argues that these winning bidders are those least likely to invest in developing land now, because that would mean foregoing the even greater investments that they (wrongly) imagine will be worthwhile when their imagined higher value arrives. Glaeser and Nathanson (2015) argue that buyers of land look at past prices to inform their future forecast of the value of land; but that in doing so they wrongly assume that past prices reflected contemporaneous demand when, in fact, they reflected past buyers' (then) future expectations of value. This model leads buyers to expect that recent house price increases will continue, to fail to anticipate the price busts that follow booms, and to be overconfident in their assessments of the housing market. Glaeser and Nathanson conclude that small errors in filtering information from past prices help to explain volatility, momentum and mean-reversion in house prices.

Volatile house prices created by restrictive regulation can affect macroeconomic stability through wealth effects. The owners of rapidly appreciating assets feel wealthier and may decide to spend some of these capital gains in advance. This was seen in New Zealand during the house price boom of the past decade, and remains a concern for the Reserve Bank as Auckland prices have risen rapidly again over the past few years. As the Deputy Governor of the Reserve Bank commented in 2014,

> house price increases could cause households to increase their spending, reducing savings and putting additional pressure on overall domestic demand. The OCR [Official Cash Rate] increases that commenced in March are aimed at countering emerging inflation pressures in general, but their success, or otherwise, in moderating housing related pressures will be key. (Spencer, 2014, p. 12)

Interest rate rises to offset increased domestic demand increase the cost of borrowing to businesses and may discourage investment. Higher interest rates also put pressure on homeowners with high debt levels relative to their incomes (eg, new owners) and it becomes harder for people to enter the property market. As a result, the wider community can end up bearing the costs of gains created by an unduly restrictive planning system.

Economic impacts: Constraints on labour market performance and productivity

Mobility of the labour force within and between regions and work locations helps to avoid labour market shortages and reduces the divergence in income levels between regions (Yates, Randolph & Holloway, 2006). Ganong and Shoag (2012) show that the decline in regional convergence in the United States is due to a large increase in housing prices and housing regulation in high-income and high-productivity areas. Regulatory barriers make it harder for people from lower-income areas to move to higher-income areas and enjoy the better employment opportunities available in higher-productivity cities.

The impact of land use regulation in restricting labour market mobility and the potential for productivity gains in the US economy from the reduction in regulatory barriers have been explored by Hsieh and Moretti (2015). They argue that constraints to housing supply in high-wage cities price out workers who would be more productive by moving to take up the opportunities available:

> Constraints to housing supply reflect both land availability and deliberate land use regulations. We estimate that holding constant land availability, but lowering regulatory constraints in New York, San Francisco, and San Jose cities to the level of the median city would expand their work force and increase U.S. GDP by 9.5%. (p. 34)

The authors conclude that restricting housing supply in dynamic labour markets imposes significant externalities on a country's economy and that reducing regulatory barriers to increasing the supply of housing would increase a country's GDP.

F3.20 Restrictive land use regulations limit the ability of people to seek better employment opportunities in cities, are a barrier to potential productivity gains, and may create risks to macroeconomic stability.

3.8 The case for realigning local and national interests

One important strand of the academic literature on regulation posits that political processes allow special interest groups to get regulations introduced that will protect their incumbent position, to the exclusion of new entrants and to the harm of consumers at larger (eg, Stigler, 1971; Posner, 1974). Regulations may claim to protect the public; instead they protect concentrated, incumbent special interests.

Many features of the planning and development system exhibit these features. The system's outputs may be described as promoting amenity, character, productive agricultural land, the environment, or public health. But many decisions of local government through the planning system effectively protect the interests and wealth of those who already own housing, at the cost of those who do not. These decisions also create externalities for the wider economy, including:

- the potential loss of agglomeration benefits to the economy from restrictions on growth and higher living costs than are necessary;
- poorer housing outcomes especially for the less well-off, who may face overcrowding or live in substandard dwellings;
- pressures on the Accommodation Supplement and other social services that result from localised housing shortages; and
- risks of macro financial instability from increased house prices, and the effect of policies designed to mitigate these risks.

A "wedge" exists between the preferences of central government around accommodating growth in our fastest growing cities and the preferences of local communities represented by local councils. This raises the question of whether decision rights have been appropriately allocated in the planning system. This is particularly important, given that central government is the holder of residual risk. Ultimately, central government bears the consequences of local decision making.

In *Towards better local regulation*, the Commission said that "[w]hen the costs and benefits of a particular outcome spill over outside local boundaries, then decision makers that cover the spillover should have control over the regulatory policy" (2013, p. 120). The Commission also concluded that two questions to ask when allocating regulatory responsibilities locally or centrally are: "Who bears the costs of the regulation? Are they represented in the region making the policy?" (2013, p. 199).

A strong argument exists that those bearing the costs of regulatory constraints on land supply (locally and nationally) are not effectively represented in local authority processes at present. A greater balance between local and national interests is needed in the planning and development system.

F3.21 A "wedge" exists between the preferences of central government around accommodating growth in our fastest growing cities and the preferences of local communities represented by local councils. Local decision making has national consequences. The balance between local and national involvement in the planning and development system needs to shift in the national interest.

4 Incentives on landowners and ratepayers

Key points

- Local government rates allocate a fixed revenue burden among ratepayers. Although growth provides councils with the opportunity to spread expenditure over a larger rating base, new growth also increases expenditure. The direct incentives from the rating system on councils to accommodate growth are weak, and ratepayers do not like the financial costs of new growth.
- The first step to address this weak incentive is to make sure that the costs of growth are not unnecessarily passed on to ratepayers through general rates. More efficient pricing and cost recovery policies would mean that the infrastructure necessary to service growth is paid by those who benefit from it, and would provide better signals for where development should occur.
- A variety of influences can impact the choices of landowners with respect to holding or making land available for development. It is critical that councils are alert to those influences and can work with them to free up land.
- Owners withholding land from development is a symptom, rather than a primary cause, of land supply shortages. Strategies to encourage landowners to develop their land for housing rather than holding it should focus on:
  - increasing certainty about what can be developed on a site;
  - reducing the scarcity value of land, through a commitment to ensuring the zoning and servicing of land is responsive to demand; and
  - influencing holding costs, at the margin, to reduce the expected future returns on land development.
- Council rates are a type of tax, and can influence landowners' decisions about how they use their land. A capital value rating system taxes the improvements on land; so, at the margin, owners are discouraged from developing land or intensifying development on it. By contrast, a land value rating system encourages land to flow to its highest value use and, at the margin, discourages holding undeveloped land.
- A trend in recent decades has been for city councils to abandon land value rating in favour of capital value rating. The arguments that support this shift in policy are not as strong as commonly believed. Where councils review their rating policies, they should consider the merits of land value rating in encouraging the efficient use of land.
- Core Crown land is exempt from general rates. No principled reason for this is apparent. Rating Crown land would provide government agencies with the same incentives that private owners face to use land or release it to those who will develop it. Similarly, some land used by councils is non-rateable. Rating that land would help to make clear the opportunity cost of a council's land-use decisions.

4.1 Introduction

Chapter 3 explores how local politics shapes a council's attitude towards accommodating growth. This chapter builds on that analysis, and also considers the incentives that influence a landowner's decision to hold land in anticipation of higher future returns, or release that land for development. It considers how incentives could encourage landowners and councils to release more land for housing.

A number of policy settings influence a landowner's incentive to develop land, at the margin. This chapter considers:

- the valuation basis of councils' general rates;
- an idle land tax; and
- charging rates on non-rateable land.

4.2 Incentives to grow

How rates differ from other taxes

Local authority rates differ from central government taxes in one important respect that has implications for how local authorities act and respond to growth.

- For government taxes, the tax rate is set at a specified rate and applied to a defined tax base (eg, income, business profits and the purchase of goods and services). As the tax base increases (eg, through more sales of goods and services, higher profits and more people entering paid employment), revenue increases. The government then decides how it will use that revenue at the annual Budget round.
- For local authorities, the process works the other way around. By law, councils must decide how much they will spend in the coming year and then set rates to cover those expenses. Property values are used to allocate the burden of rates, and the share of general rates paid by an individual household or business depends on the value of their property relative to the value of other ratepayers' properties in the council area. The total amount of revenue raised does not change as property values change.

Taxes provide incentives for governments to favour growth policies, as this increases the revenue base. The incentives for local authorities created by the rating system are more muted. Increases in the number or value of rateable units (above what is expected in Annual and Long-Term Plans) do provide additional revenue. But the impact of this additional revenue is less direct than for taxes, because of the requirement that councils set their budgets each year and then recover costs. Depending on the decisions that elected representatives make on budgets, an increase in the number of rateable units could lead to:

- a reduction in the average level of rates paid by each unit (if councils decide to hold service levels steady or reduce them); or
- an increase in the average level of rates paid (if councils decide to increase service levels faster than the growth in the size of the rating base).

Unlike with taxes, there is no automatic connection between the size of the revenue base or its value, and the total amount of revenue collected. This means that councils face weaker incentives to grow the underlying revenue base.

This point was made by a number of submitters to the inquiry:

> As the Commission correctly identifies, the way rates are set in New Zealand means that value uplift following an activity, such as rezoning or infrastructure investment, is not additional to the overall rates base, but simply results in the reapportionment of the same rates across the council area. (NZCID, sub. DR132, p. 14)
>
> It is true that in New Zealand the way rates are set means increases in the value of the rating base will not of itself increase rating revenue. It is also true that the increased value of the newly-developed property reduces (marginally) the share of rates levied on every other ratepayer in the district. (Western Bay of Plenty District Council, sub. DR104, p. 9)
>
> It is fair however, to highlight the fact that additional ratepayers in and of itself does not create additional general rates revenue. Additional ratepayers can create additional revenue through other sources (for instance, user charges for council owned infrastructure) and reduce the per person costs of infrastructure (for instance, in respect to sewerage, water treatment or roading, where there is a significant fixed capital cost which does not directly correlate to the population being serviced). (Federated Farmers, sub. DR120, pp. 14–15)

F4.1 The way rates are set means increases in the value of the rating base (through increasing property prices or new development) will not of itself increase rating revenue. Unlike other taxes, there is no automatic connection between the size of the revenue base or its value, and the total amount of revenue collected. This means that councils face weaker incentives to grow the underlying revenue base than central government.

Local incentives and attitudes towards growth

Most councils told the Commission that they welcomed population growth and wanted to accommodate it, but many pointed to the financial costs of doing so. The construction of new dwellings expands a council's rating base, providing scope for increased expenditure over time, but this is a weak incentive. Accommodating population growth is not seen as financially beneficial to local government, but as a drain on resources:

> [T]he government appears uninterested in acknowledging the funding issues that growth councils face let alone addressing them. …
>
> One of the significant issues facing local government is the incentives it faces around growth management and urban development. TCC's [Tauranga City Council's] view is that central government benefits directly from growth in the form of additional tax receipts, job creation etc.; developers and associated parts of the development supply chain also benefit in terms of profits. However the funding system for local government works such that rate revenue as the result of additional rateable properties increases only to the extent that the costs of running a city increase as it gets bigger i.e. councils don't financially benefit from growth. (Tauranga City Council, sub. 47, pp. 17–18)

Donald Ellis also made this point in his submission to the inquiry:

> [T]he way the rating system works council revenue is not directly linked to the economic health of their community. So success for a council is self-defined and has more to do with delivering promised outputs within budget than achieving a measurable set of outcomes in the community. (sub. 44, p. 2)

In July 2015, Local Government New Zealand (LGNZ) published the report of its Local Government Funding Review: *10 point plan: incentivising economic growth and strong local communities.* The report argued that the funding arrangements of local government meant that it could be less than welcoming of economic opportunities, including facilitating new housing:

> Internationally, there are excellent examples of councils partnering with private interests to achieve positive outcomes for their communities. In New Zealand, at present, we often seem to struggle to make these sorts of win-win deals, whether in developing new housing, funding infrastructure needed to support new and existing communities and businesses, or gaining community consent to develop local resources. …
>
> Expanding the funding toolbox … would allow councils to better mix and match funding sources, offering the potential to increase community support for projects that might otherwise have been funded through increased rates, or foregone altogether. Our intention is to highlight funding options that help councils and communities to say "yes" to growth. (LGNZ, 2015b, p. 7)

In the course of the inquiry the Commission has been pointed to proposals that would provide local government with a 'share' of growth or economic activity, including reports from LGNZ (2015a, 2015b). Federated Farmers, for example, submitted that

> councils do not receive an appropriate share of any growth that results from infrastructure provision, and that this places significant costs on councils in high growth areas. We consider the most logical solution is a greater contribution from central government to local government where growth is a key driver for additional infrastructure spending.
>
> As noted in the Commission's report, growth and housing availability is a national issue; currently funding for the marginal infrastructure to accommodate growth is largely a local problem.
>
> Federated Farmers would welcome additional support for local government in this respect. (sub. DR120, p. 15)

Before government considers rewarding local authorities for growth, councils should ensure they are not unnecessarily imposing infrastructure costs for new developments on the wider ratepayer base. Rates are a highly visible type of tax, and ratepayers may be more acutely aware of the effect of expenditure on their rates than for other sorts of taxes.

Where new infrastructure benefits new developments, those developments should pay for the infrastructure. Where it benefits new and existing residents, those beneficiaries should pay. Where the wider community benefits, there is a public policy case for the community to bear part of the costs of development, proportional to the general benefit conferred.

This report has found evidence of poor practice on the part of councils and other infrastructure providers in implementing effective and efficient cost-recovery and pricing policies (see Chapters 9 and 10). In Auckland, infrastructure growth charges for water connections significantly under-recover the capital costs of growth and do not discriminate between new connections that entail high capital costs and those that require lower capital costs. Some councils are also unwilling to use targeted rates to recover the costs of community infrastructure from the beneficiaries of that infrastructure (see Chapter 9).

Pricing appropriately may mean higher charges on development (and particularly for new housing that requires greater infrastructure investment); but this would contribute to lower land prices. This is because:

- a more effective supply of developable land is available and the land market is more responsive;
- landowners with infrastructure connections face the threat of competition from other owners who are able to get land serviced much more readily; and
- the higher cost of some inputs (infrastructure costs) results in developers having less money to bid for land, which in turn depresses prices.

Ensuring that growth pays its way will mitigate community and council opposition to development, and is a better first order response to the problem of incentives on growth than new revenue streams for local government.

F4.2 High-growth councils tend to see new housing development as a net cost. The first response should be to ensure the costs of infrastructure are allocated appropriately.

4.3 Withholding land from development

This inquiry is about land, which is a critical input to the supply of housing. But landowners in New Zealand are a diverse group. Reed and Sims (2015) write:

> The landowner plays a critical role in the first stage of a development process. For example, they may be engaged in initiating the development itself due to their desire to sell the land, or alternatively they may seek to improve the value of their land. At times it can be a combination of both of these drivers. On the other hand, a landowner may be unwilling to sell their land and can become an obstacle to a proposed development. Without the willingness of the landowner/s to sell their interest or participate in the development, no future development can take place unless it is possible to acquire the land through compulsory purchase powers. Often the landowner's motivation will affect their decision to release land for development and this is the same whether the landowner is an individual, a corporation, a public authority or a not-for-profit organisation. (p. 17)

Zoning and connecting developable land to infrastructure does not necessarily mean that the land will be developed for housing. The practice of holding land back from market was identified by a 2012 Victorian Parliamentary inquiry into the liveability of outer suburban Melbourne:

> The identification of land within the UGB [Urban Growth Boundary] or within a PSP [a Precinct Structure Plan which outlines future growth along strategic transport corridors] does not necessarily mean that it is ready for development. Land within PSPs is often held by a variety of owners including developers, farmers, investors, and other private land owners, who are under no obligation to develop their land or sell it to a developer. The PSP provides a framework within which these private land owners can operate

> should they wish to develop the land. This has the capacity to increase delays in the development of the land, decrease the supply of housing, and exacerbate the affordability problem. In addition, developers are also entitled to retain their land until they wish to develop. The Committee notes that this situation is not unique to Victoria. … [The inquiry was told] that some developers in the outer suburbs of Perth are currently holding their land back from development because they are waiting for prime market conditions. He [the Director General of the Western Australian Planning Department] referred to this practice as land banking, stating that in some cases it is problematic for service authorities, because it is difficult to time the provision of primary infrastructure such as trunk mains. (Parliament of Victoria, 2012, p. 185)

Many submitters were emphatic that land banking was a problem in New Zealand. A L Christensen submitted that the existence of land banking was "patently evident", particularly in high-growth and demand areas. Christensen submitted that "in Takanini up to 90% of the developable rural land destined for urban development is already land banked", concluding that "[l]and banking is one of the scourges of land supply for housing and there is nothing remotely philanthropic about it" (sub. 7, p. 11). Registered Master Builders submitted that

> [i]t is easy to constrain the flow of land to the market. This constraint is possible because many local development markets are dominated by a few larger players due to the huge costs and uncertainty associated with development. There is little pressure on developers to bring land to market quickly (other than to cash up), meaning supply can be intentionally constrained. (sub. 23a, p. 15)

The New Zealand Transport Agency (NZTA) submitted that "land banking is an issue where developers may drip-feed zoned land on to the market to maximise the value of new sections" (sub. 73, p. 7). Future Proof, which represents councils in the Waikato region, submitted that land banking was a dominant cause of housing affordability issues (sub. 39); SmartGrowth, a similar group in Tauranga/Western Bay of Plenty, also considers land banking to be a concern (sub. 27). A report from Master Builders noted:

> Several developers commented that land owners often held onto land for several years even after it was rezoned residential, in the hopes of gaining a large windfall profit as demand built. Developers can also hold onto land when demand is high, hoping that prices will rise faster than the holding costs of the land. (Registered Master Builders & Construction Strategy Group, 2015, p. 31)

Queenstown Lakes District Council said:

> A seemingly high dwelling capacity may have limited value if that capacity is tightly held by only a very small number of landowners, with resulting land banking and speculation, and minimal release of land / dwellings to the market. (sub. 56, p. 2)

In its submission on the Resource Management Reform Bill 2012, Foodstuffs pointed out that perceived land banking can occur for legitimate reasons:

> (a) In practice, what is termed *"land banking"* involves the early identification by prospective developers or investors of land that is likely to become attractive for development in the future; the consolidation of ownership of those properties; the provision of appropriate zoning where needed; and, in some cases, the obtaining of resource consents. In many cases, those works occur many years before the market is ready or able to accommodate the proposed development but they give the developer and the wider community confidence that land can and in the fullness of time will be developed. Land banking is an example of strategic thinking and forward planning – qualities that are generally considered to be beneficial.
>
> (b) Holding costs on land are high. It is unusual for developers and investors to delay the implementation of zoned and consented development other than where market circumstances indicate that it is not economically viable to develop. In Foodstuffs' experience, most developers and investors would prefer to develop land relatively early and thus minimise holding costs and release the funds for investment in further development elsewhere. (sub. 50, p. 15)

This section explores why land is withheld from development. In its report into *Housing affordability*, the Commission said that "there is no easy way of determining whether land banking is taking place or for what reasons" (2012a, p. 118). In this inquiry, the Commission has considered the factors that cause owners to withhold vacant land from development and how owners can be encouraged to release or develop it.

Why do owners withhold land from development?

Land banking is typically described as the acquisition and holding of land in anticipation of future use. A landowner may be a farmer, investor or a developer; the land may be vacant, underdeveloped, or employed in a relatively low-value activity; and the land may be held in anticipation of future development opportunities or for as long as the most profitable use is unclear, which in some cases may be because of uncertainty about planning regulations (Evans, 2004).

The reasons why land is owned, and why owners may not develop land, are complex. Individual owners vary in their motivations, preferences, and initiative. Adams and May (1991) distinguish between active landowners, who are alert to development opportunities and may be active in pursuing them; and passive landholders who, while they may envisage developing the land in the future, are content to maintain land in its current state.

Evidence of some of this complexity in New Zealand is in a study undertaken for Auckland Council on long-term vacant residential land in Auckland. As part of its Capacity for Growth Study, Auckland Council (2013a) had found 5 007 vacant properties in built-up areas of Auckland. These sites are zoned residential and serviced with infrastructure, and so are "ready to build". Almost two-thirds of the properties had been vacant since at least 2006. Memon and McFarlane (2014) sought to understand why the sites were vacant, what owners' intentions for the sites were, and how barriers to developing the sites could be overcome (Box 4.1).

Box 4.1 **Long-term vacant, residentially zoned land in Auckland: Reasons for prolonged land vacancy and development potential**

Of the 2 979 long-term vacant properties, 74% were recorded as being 'residential vacant' and 1% as 'lifestyle vacant', indicating that there were no existing use barriers to their development for housing. A further 17.4% were recorded as being 'residential', suggesting that they formed part of a larger residential property (a backyard, or a tennis court), while 6% were recorded as being in 'other' use, which the authors suggest is likely to include being used as school fields, car parks, grassed reserves, or unimproved concrete next to commercial or industrial sites.

Of the land parcels, 60% were smaller than 900m², while 11% were larger than 2 000m². In total, the researchers estimated that the 2 979 properties could provide 8 608 dwellings based on the operative District Plan.

Most (65%) of the properties were owned by individuals, couples, families or partnerships. 19% were owned by companies, while Auckland Council owned 5% directly or indirectly. Religious groups or trusts owned 3% of the properties, although this accounted for 7% by value.

The researchers approached 180 randomly selected owners, and eventually conducted and reported on semi-structured interviews with 29 owners of sites from across Auckland. Of these owners, 17 were found to be "'mum and dad' type small scale investors" whose only other holdings were a home or bach; 12 owned other investment property, some with property development/investment as their primary occupation.

Of the 29 respondents, most had owned the property for more than 10 years, and five had owned it for more than 41 years. Almost all of the properties, 27, had been purchased (rather than inherited or gifted). Most respondents had bought with the intention of subdividing or building, either for personal use or financial gain.

Respondents were asked why the land was still vacant and pointed to a variety of causes.

- *Difficult financial situation.* At the time of the interviews the unfavourable financial situation in the wake of the Global Financial Crisis (GFC) was perceived as a major barrier by several respondents. Financial risk, including a fear that Auckland's property market was in a 'bubble' that might bust, and difficulty accessing affordable finance, were cited by respondents as influences.

- *Role of Auckland Council*. A number of respondents blamed Auckland Council's planning and regulatory functions for an inability to build. In particular, they pointed to inconsistency in how officials in different parts of the council interpret and apply building and planning rules.
- *Difficult sites*. A need to undertake significant earthworks or land remediation was a barrier to some respondents, and the authors note that councils may have taken a more precautionary approach following the 'leaky buildings' crisis.
- *Land banking*. Some respondents were happy to hold land because of the prospects of capital gain.
- *Lifestyle reasons*. For some respondents, a preference for a particular rural lifestyle, or family considerations (eg, elderly parents) was behind the lack of development.

However, most respondents intended to develop or sell the land at some point in the future.

Source: Memon & McFarlane, 2014.

Memon and McFarlane concluded:

> A number of inter-related perceived supply side barriers embedded in formal and informal institutional arrangements for the Auckland property market have arguably provided incentives to vacant land owners to defer house building ventures. The perceived barriers relate to increased cost and risks of housing development as an outcome of inter-related factors including the global financial crisis (GFC), the cost of planning and building compliance and the leaky homes syndrome, as explained above. From the land owner worldview, the alternatives of financially more rewarding land banking and land speculation options look much more appealing when seen against the backdrop of these perceived barriers. Likewise, land owners have had little incentive to sell their vacant land in the current market or when they do offer to sell, it is at an uncompetitive price. Vacant land has become an object of speculative investment for its own sake instead of for its value in providing housing for Aucklanders. (2014, pp. 45–46)

The Commission (2012a) has previously noted the potential for Māori land to increase the supply of affordable housing for Māori. But owners of such land also have diverse views about the desirability of developing such land (for example, sub. DR136) that need to be taken into account.

F4.3 Owners of land may choose not to develop their land for a variety of financial and non-financial reasons. Efforts to encourage the development of such land needs to acknowledge and account for these varying drivers.

Although there are non-financial drivers of withholding land from development, expectations or uncertainty about future market conditions can also cause an owner interested in developing land from withholding it. From a financial perspective, an owner will compare the returns from immediate development with their expectations of the returns from future development, taking account of holding costs and discounting returns to their present value (Ottensmann, 1977).

Differences between landowners – their income or tax positions, access to finance, alternative investment opportunities, whether they are able to put land to other interim uses – explain why owners of otherwise similar parcels of land may make different decisions about developing, selling or holding land.

As explained in Chapter 3, properties differ because of the particular package of characteristics and amenity associated with individual sites. Where no other similar sites are available, a landowner can command a higher price because of the local scarcity of the preferred site. Where land ownership is concentrated in a few hands in a neighbourhood, the effect of limited competition between land parcels is exacerbated. Owners are able to limit the release of parcels of land to the market at any one time to keep land prices high.

Importantly, expectations about a city's future growth also influence these decisions. Ottensmann (1977) compares two hypothetical cities that are identical in every respect, except one where there are expectations of slow residential growth, and one where there are expectations of rapid growth and high demand. In the first city, the lower expected present values of return from future development will cause landowners to release or develop land; in the second city, high expected demand and future returns will lead more landowners to withhold land from development. High expectations about future growth also drive up land values:[25]

> The quantity of land withheld from current development should vary directly with the levels of expectation concerning future residential demand. Put another way, landowners in rapidly growing cities will reserve more land for future development. The more growth they expect, the greater their tendency will be to sit tight and wait for higher returns to their land. (Ottensmann, 1977, p. 391)

F4.4 Expectations of high future demand can encourage landowners to withhold land from development.

Where a planning system creates uncertainty about what can be built, this can also discourage owners from developing their land. Comparing the British planning system to that of France and Sweden, Barlow (1993) concludes that "the British approach is subject to a high level of uncertainty, exacerbating risk-taking speculative behaviour and price inflation" (p. 1129). Titman (1985) also points to uncertainty about what can be developed on a site as a motivation for withholding land from development:

> [T]he range of possible building sizes provides a valuable option to the owner of vacant land that becomes more valuable as uncertainty about future prices increases. An implication of this relationship is that increased uncertainty leads to a decrease in building activity in the current period. …
>
> By waiting until some future date to build, the speculator is able to construct a building that is most appropriate given economic conditions at that time. Since the exact nature of these economic conditions are unknown at earlier dates, a building constructed earlier will not in general be the optimal size for the future. The decision to build or not build can be thought of as weighing the opportunity costs associated with keeping the land vacant against the expected gain from constructing a more appropriate building in the future. (p. 513)

As discussed in Chapter 6, this uncertainty is built into the way councils approach land use regulation in New Zealand.

Land shortages can encourage owners to withhold land

Studio D4 described the incentives on landowners in Auckland, an environment where supply is constrained by regulation, as follows:

> [T]he Planning Regime of the Regional Growth Strategy (RGS) … resulted in insufficient development land being zoned, relative to demand.
>
> The scarcity has led to the power being in the hands of those that control the land. Essentially almost all owners of suitably zoned land have seen their prices escalate rapidly, as a scarce resource is demanded by more and more people.
>
> Unfortunately some owners have seen this increasing "power" position, as an ability to ration supply even further to the point, where the ever increasing demand for their scarce land holdings has seen them either achieve, or attempt to achieve, what can only be fairly termed as "superprofits". This is where the returns are so high, relative to the initial capital provided and the risk taken, that this sort of opportunity must be reduced or eliminated for a future efficient functioning market place. (Studio D4, 2013, p. 37)

Philip Hayward submitted that the effect of an urban growth boundary around a city is effectively the

> …imposition of a quota of land within which participants in the urban economy must fight price-rationing battles for a share without regard to any factors beyond "the victory of the deepest pockets".

[25] Ottensmann notes that this decrease in the supply of land for current development in the second city will produce an increase in land prices and returns from current development, enticing some of the owners back to develop their land before an equilibrium is reached.

> … under these conditions, the owners of developable land cease to behave like the rational participants in markets that are assumed in economic theory, whereby "the market" merely allocates land to "best use"; and behave instead like the holders of a speculative commodity such as gold. (sub. 41, pp. 5 and 13)

Speculators play an important role in markets, providing liquidity and inducing production where there is demand, at their own risk. However, in a regulated land market the effective supply of land for any particular use is primarily determined not by the market, but by land use regulation and the availability of infrastructure.

Typically the purchase of land comes with a set of ownership rights,[26] but also restrictions about the uses to which the land can be put (including the intensity with which it can be developed). For example, regulations might stipulate the maximum proportion of a site that can be built on, or whether multi-unit or high-rise buildings can be built. Land that is subject to fewer regulatory restrictions, and so can be used more intensively, will be more valuable than adjacent land that is subject to more restrictions. However, land that is in locations with greater demand will also be more valuable. The cumulative effect of regulatory restrictions on the use of land across the city as a whole, including restricting the total amount of land that can be developed through urban containment policies, makes developable land scarce and so increases the expected future value and current price of all land parcels.

Glaeser (2013) reviews a series of real estate "convulsions" in the United States, from the 1790s to the "Great Housing Convulsion" that precipitated the recent GFC. He argues that while housing booms have unclear causes, they all end in the same way:

> There is no obvious common source of buyer over-optimism during booms, and simple models, such as extrapolating future growth rates, are usually too weak to definitively warn against over-paying. There is however a common mistake: ignoring the impact that added supply will have on long-term price. This ordinary, understandable error can increase the volatility of housing prices and raise the costs of policies that artificially induce leveraged speculation on real estate. (p. 4)

Expectations of future price increases will encourage owners to withhold land from development, but those expectations are typically shattered when supply increases:

> Many things are similar between the most recent boom and previous events. Rising prices are most strongly associated with optimistic expectations, and credit market conditions more typically played a supporting role. …
>
> Booms end when these optimistic projections fail to materialize, at least in the short run, but in many cases, the shocks seem like they should have been predictable to a forecaster with a Marshallian appreciation for the power of long-run elastic supply.[27] … In the recent boom, sufficiently well-informed buyers in Las Vegas presumably should have recognized that America's incredible abundance of desert space would ultimately limit the long run value of homes on the urban fringe of that metropolis.
>
> The difficulties in forecasting the impact of supply are both understandable and hard to arbitrage. (p. 40)

The effective supply of land in New Zealand is relatively inelastic (unresponsive to price signals reflecting a change in demand) – it is in practice controlled by local councils through land use regulation and infrastructure investment decisions, that are taken with little reference to effective demand or price. If land use regulations change, such that developable land is no longer scarce and expectations of future increases in land prices are undermined, then the expected returns on developing land in the future will decrease. Some sites have unique characteristics where an owner might continue to hold land in the expectation of prices continuing to rise, but most landowners would not continue to expect future increases in land values, and would face far stronger incentives to develop.

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[26] These "property rights" help to ensure that the market for land functions well. First, property rights define who derives the benefits and bears the costs of using the resource. Second, the rights, privileges and limitations can be transferred through sale to a new owner, and the property rights are crucial to determining the value of the land and therefore the sale price. Third, property rights define rights, privileges and limitations that can be enforced.

[27] Alfred Marshall (1842–1924) developed the economic concepts of the 'short run' and 'long run' and popularised the use of supply and demand functions. In the short run, some components of supply may be fixed (eg, by capacity constraints of machinery); so supply may not be very responsive to demand. In the long run, those constraints can be overcome; so supply can be more responsive (elastic) to demand.

F4.5 Expected returns from developing land in the future are increased by regulatory constraints that increase the scarcity value of land. Owners withholding land from development is a symptom, rather than a primary cause, of land supply shortages.

This analysis suggests that a number of approaches should be considered to encourage owners of land to develop it for housing:

- approaches to land use regulation that increase certainty about what can be developed on a site, including through reducing the exercise of discretion in consents (see Chapter 6);
- reducing the scarcity value of land, through a commitment to ensuring the zoning and servicing of land is responsive to demand (see Chapters 9 and 12); and
- influencing holding costs, at the margin, to reduce the expected future returns on land development (see sections 4.4 and 4.6 below).

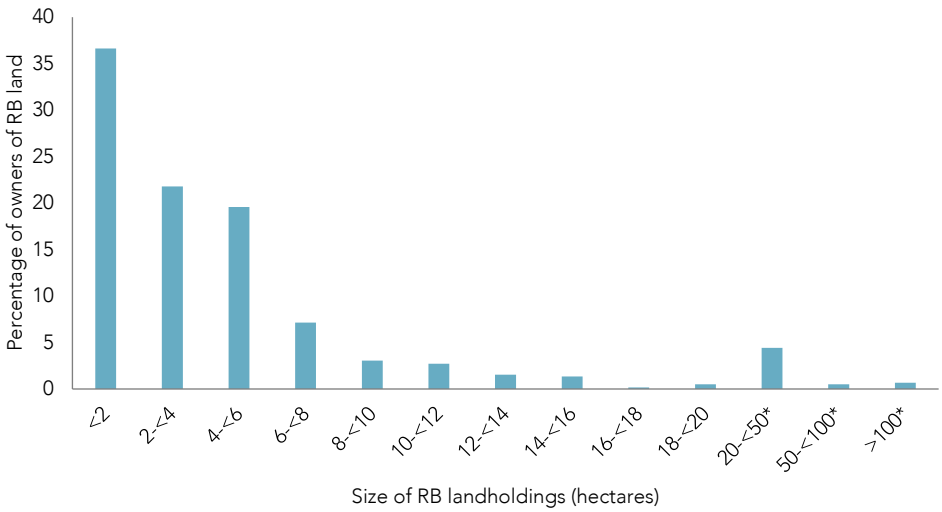
Vacant land in New Zealand cities

Auckland

The study by Memon and McFarlane (2014, Box 4.1) provides evidence about many of these sections in already built-up areas of the city that had been vacant for a long time. The Auckland Council District Valuation Roll shows that there are 12 013 individual vacant sections suitable for the construction of a single dwelling.

The District Valuation Roll also reveals information about the size and ownership of larger parcels suitable for subdivision ("bare or substantially unimproved land, which is likely to be subdivided into dwelling house sites"[28]; Land Information New Zealand, 2010, p. 64). It also shows that most of the land that valuers consider to be suitable for subdivision is held by a very large number of owners rather than concentrated in a small number of hands (Figure 4.1).

Figure 4.1 Size of landowners' total holdings of bare land suitable for subdivision for housing



Source: Productivity Commission based on Auckland Council District Valuation Roll.

Notes:

1. The graph shows owners' total landholdings, which may not be contiguous.
2. The scale on the landholding axis changes beyond 20 hectares.
3. Valuers categorise all land based on its highest and best use, or the use for which the property would be sold given the economic conditions prevailing at the effective date of valuation. This may be different to its current use. RB land is categorised as "bare or substantially unimproved land, which is likely to be subdivided into dwelling house sites".

[28] This category of land, bare land suitable for subdivision for housing, is coded RB in the District Valuation Rolls. This land was not considered by Memon and McFarlane in their 2014 study.

Figure 4.1 shows that more than one third of the approximately 587 owners of RB land each have total holdings of less than 2 hectares. More than 94% of owners of RB land have holdings of less than 20 hectares. Based on the Hobsonville development, which has density of 18 dwellings a hectare, and assuming that the landholdings are contiguous (which in many cases will not be the case), more than one third of owners own land that could hold 36 dwellings or fewer; a further 22% of owners own land that could hold between 36 and 72 dwellings; and a further 20% own land that could hold between 72 and 108 dwellings. Only 6% of owners could provide land for more than 360 dwellings, and only one landowner of RB land has a total holding that is as large as the area of the Hobsonville development (which will ultimately realise 3 000 dwellings). A high proportion of land suitable for subdivision is held in small parcels.

The total bare land in Auckland that is considered suitable for subdivision for housing covers about 3 600 hectares. The Ministry of Business, Innovation and Employment (MBIE) reported in February 2013 that about 560 hectares of this bare land has bulk clean water and wastewater supplies to the property boundary, with capacity for around 14 500 dwellings (MBIE, 2013).

At present, low interest rates mean that holding costs on land are relatively low. Auckland is experiencing significant demand for land for housing, which is forecast to continue into the future. The assessed value of bare land suitable for subdivision in Auckland (regardless of its current zoning) increased by 93% from 2011 to 2014. The Council's commitment to urban containment policies and limited future releases of greenfield land will also increase expectations of high returns from developing land in the future. Given these factors, many landowners, who are able to, will be encouraged to withhold land from development.

In Auckland developable land is not held by a small number of owners who are able to dominate the market, but individual owners may still have an incentive to hold undeveloped land in anticipation of higher future returns.

F4.6 Auckland has a large number of owners of bare land suitable for subdivision and the construction of dwellings. No evidence exists that a small number of owners have a dominant position in the Auckland market.

Special housing areas

The Commission was told several times that much of the land within Auckland's Special Housing Areas (SHAs) was not being developed, and was instead being "banked" or sold on for profit without the intention of developing it. The New Zealand Housing Foundation submitted that

> [t]o date, 80 special housing areas with the potential for 41,500 dwellings have been created in Auckland, however, only 350 houses have been built. Anecdotal evidence suggests some developers (and land bankers) who own land within the special housing areas are gaining consents for their properties and holding their properties waiting for values to rise. (sub. 69, p. 14)

Auckland Council has emphasised that dwellings realisation can take more than two years from the approval of a SHA.

> Even with the best possible regulatory and planning processes in place, there will always by necessity be a time lag in the delivery of new homes to the market. Gaining consent for a development is just one of the many steps a developer or builder has to take to complete a dwelling. (sub. 71a, p. 2)

Consents granted under the HASHA Act must be exercised within a year (rather than the standard five years) or they lapse. The most recent MBIE and Auckland Council report (2015) on the housing accord states that consents for 1 019 dwellings/sections have been approved in SHAs in Auckland.

At present, it is difficult to evaluate whether the lack of building indicates a significant problem, or whether it is merely a lag in consents and construction. Conceivably, the shorter period before consents lapse could cause developers to delay seeking consents until preparations for construction are more advanced. Owners of land within a SHA in some cases may be able to realise greater value from the land as a result of the streamlined planning requirements. But, otherwise, they have similar incentives to hold or develop land as other landowners.

Wellington City

The Commission was told that, within the boundaries of Wellington City,

> [t]he greenfield housing market is largely controlled by two developers who usually sell the land as 'land and house packages'. Between them they release only about 100-150 allotments/houses onto the market per year. During the GFC, these figures were halved. In these circumstances, relatively high house prices can be maintained through land-banking and controlling the supply of housing to market.
> …
>
> This is not necessarily land banking in the traditional sense, but rather limiting the release of land to control financial risk. (Wellington City Council, sub. 21, pp. 11, 51–52)

Another submitter says that the Council is to blame for this situation:

> One property developer who bought two large farms in Wellington North around 1980 has had a near monopoly on the supply of greenfields housing in Wellington since the 1990s as the Council has refused to enable any more leapfrog development. (Philip Hayward, sub. 41, pp. 62–63)

Wellington has a longstanding commitment to not growing beyond the outer green belt, which precludes residential development along Ohariu Valley. The result is that two owners dominate the supply of developable greenfield land, and can release land incrementally to maintain its value (Wellington City Council / The Property Group, 2014).

Despite this, Wellington house prices have not increased as dramatically as in Auckland. A large explanation for this is the significantly smaller population growth rate over that period, as well as lower expectations about future demand.

Wellington also has a regulatory environment that is more enabling of secondary units (granny flats/house and income units), and both medium-density and high-density dwellings. For example, minimum parking requirements in the Central Business District were removed in the 1990s, and balconies are not required for apartments (see Chapter 5). Wellington also has a comparatively high percentage of its population working in the central city, which is conducive to denser housing styles. Wellington City Council submitted that 77% of its new dwellings are infill or medium-density, or central city apartments (sub. 22).

Christchurch

In Christchurch the Commission was pointed to the 4.5 hectare vacant ex-Addington Saleyards as an example of land banking that frustrates the local council (Box 4.2).

Box 4.2 **Addington Saleyards**

Source: NCS photography. Used in accordance with Creative Commons License 2.0: https://creativecommons.org/licenses/by/2.0/

Between 1874 and 1997 the Addington Saleyards adjacent to Hagley Park was the hub of Canterbury's livestock trading. When the saleyards relocated to Wigram, the Addington site would have been a

prime candidate for redevelopment, but it has since remained vacant. The Greater Christchurch Urban Development Strategy described the situation as follows:

> The 4.5ha former Addington Sales Yard site is the largest undeveloped/underutilised site on the fringes of Hagley Park – Christchurch City's signature open space.
>
> Previously used, up until 15 years ago for the sale of livestock, it has remained undeveloped since that time despite approaches for its re-use for a range of purposes, not least medium density residential development for which it is zoned.
>
> The site was purchased in the late 1990s … for a commercial use of the site but this project fell away in light of the difficulties posed by the long standing residential land zoning. Periodic approaches, never formalised in the form of consents, for commercial uses on the site continued in the 2000s. In more recent years, at least three developers pursuing mixed use schemes involving residential uses have approached council for preliminary discussion. However, these have fallen away in light of an inability to reach a deal with the landowner on price. In 2013, responding to the potential decanting of car sales uses from the South Frame area designated in the Christchurch Central Recovery Plan, a scheme for 10 car dealerships was submitted for resource consent. This was understood to have the landowners support. However, being entirely at odds with the zoning, the application was withdrawn, prior to being refused following public notification. The most recent approach, involving a hotel, 100-120 high value, high specification apartments and park edge retailing (with a visitor hospitality focus) was well advanced by a speculative developer working with a high quality architect. However, once again the price being sought for the land was unrealistic leading to the project being shelved.

The site was purchased in 1997 for $4.56 million. It has a current land value of $12.6 million with no improvement value, and a yearly rates bill of $78 821.41, which is equivalent to 0.6% of the land value.

Source: Greater Christchurch Urban Development Strategy, sub. 18a.

The Commission was pointed towards other examples of land banking in other urban centres, including Tasman District, Tauranga City and Queenstown Lakes District.

F4.7 The practice of owners withholding land from development is widespread and has many causes. Patterns differs across New Zealand cities. In some cases owners may have a strong position in the local market for greenfield land that allows them to stage releases to control supply. In other cases ownership may be dispersed, but owners may withhold land from development because they expect higher returns from developing in the future.

4.4 Valuation basis of general rates

Local government choice of valuation base for general rates

New Zealand is unusual in giving local authorities the ability to choose the basis on which they levy general rates. They can choose from:

- capital value, being the value of land and improvements;
- annual value, which is the greater of either the estimated gross yearly rental less 20% (or 10% if there are no buildings on the land) or 5% of the property's capital value; or
- land value (originally called unimproved value), which is essentially a locally applied land value tax.

Between 1896 and 1976 councils could only adopt land value if a local referendum was held, though they could switch freely between capital and annual value rating. Despite this additional hurdle, land value rating proved popular. McCluskey, Grimes and Timmins (2002) note:

> After 1896, with the advent of three recognised systems of rating available to local authorities, there was a steady move away from annual value and capital value rating to unimproved value rating. By the Second World War, land value based rating had become the dominant system, and this trend continued through to the 1980s. However, since 1985 there has been a noticeable swing back towards the use of capital improved value. This is more evident in larger areas. (p. 3)

In 1985, approximately 85% of councils were using land value and 10% were using capital value; by 2006/7, the Shand Report (2007) records that only 42% were using land value and 52% were using capital value. Since then, government legislation has required that the new Auckland Council use capital value (at least for the first year when the local councils merged), with the North Shore having previously used land value and other councils having previously used annual value. Hamilton City Council has recently decided to shift from land value to capital value rating.

Auckland Council's Housing Action Plan (2012a) said that the Council would "investigate ways rating policy could be changed or improved to incentivise development of undeveloped land in existing urban areas and greenfields" (pp. 22–23).

Effect of rating valuation base on land-use decisions

Land value rating is particularly attractive in the context of this inquiry because it encourages (or rather, does not discourage) the development of bare land:

> The main advantage of site value [land value] taxes is their potential for improving the efficiency of land use. Site value, in principle, taxes the location rents (the return from a particular location regardless of the improvements to the site). If improvements are not taxed, the owner has an incentive to develop the land to its most profitable use. Compared with a property tax that discourages investment in property, a site value tax will encourage building and improvements. (Slack, 2006, p. 203)

The levying of rates on the basis of land value would have similar effects to a central government land tax (Box 4.3).

Box 4.3 **Land value tax**

There is a long literature in economics on the merits of a land tax, going back to Adam Smith (1776). Most taxes create deadweight costs (reduce economic activity). But a land value tax is extremely efficient, in that it does not deter production, distort markets or create deadweight costs. A land tax would reduce the price of land, and encourage the efficient use of land:

> A land tax does not distort investment behaviour as it applies to land which is in fixed supply. This creates a tax liability regardless of whether or how well the land is used. As the supply of land is perfectly inelastic (fixed in supply), market prices depend on what purchasers are prepared to pay rather than on the expenses of land owners. Accordingly, land taxes cannot be avoided or passed on and would be borne by land owners at the time the tax is announced. (IRD and New Zealand Treasury, 2009, p. 2)

Indeed, where a land tax encourages land to be improved and used more efficiently, or where some land is foreign owned, a tax on land value can be beneficial to the economy (creating 'negative deadweight loss' or 'negative excess marginal burden'). A 2015 working paper from the Australian Treasury found that of the major Australian taxes, only a land tax offered net benefits to the economy.

New Zealand's first tax in 1878 was a land tax. By 1982 it constituted just 1% of government revenue, and it was abolished in 1990. One explanation for its decline was that local government rating of the same tax base had effectively crowded out the benefits of a national land tax (Barrett & Veal, 2012).

From the perspective of supporting the release of land for housing, a land tax imposed by central government is attractive. However, it would also have significant effects on current landowners who would effectively bear a lump-sum tax on their wealth, and consideration would need to be given to the effect on those with low incomes, and ways to mitigate this (similar to those available to local government ratepayers).

A land value tax was recommended by the Victoria University of Wellington Tax Working Group (2010) as a way of improving the overall efficiency of the tax system, and funding rate reductions for other tax classes.

Source: Smith, 1776; IRD and New Zealand Treasury, 2009; Australian Treasury, 2015; Barrett & Veal, 2012; VUW Tax Working Group, 2010.

By contrast, rating based on capital value is a tax on improving land, and at the margin will discourage development. This is supported by modelling undertaken by Brueckner (1986) and DiMasi (1987) who find increased development, higher density and lower house prices as a result of land value taxation, as well as evidence from changes to property taxes in Pittsburgh (Oates & Schwab, 1997). Philip Hayward submitted that

> [s]imple fiscal incentives to increase the efficiency of use of land, are recommended by virtually all these authors [Alain Bertaud; Cheshire, Nathan & Overman; and Alan Evans] and by significant experienced urban economists in the US such as Edwin S. Mills and Alex Anas. That is, proper pricing of infrastructure use related to the cost of provision; road pricing; and shifting the burden of taxation off structures and onto land. (sub. 41, p. 3)

IRD and the Treasury in their briefing to the Victoria University of Wellington Tax Working Group were blunt in their assessment of a tax on the value of land and improvements (which they describe as a property tax):

> A property tax is calculated by reference to the value of land and any buildings or other improvements on it. It may therefore disincentivise landowners from investing in improvements on the land.
>
> A property tax may push up rental costs, and housing costs for owner-occupiers – no such effect is expected for a land tax.
>
> A property tax will reduce investment in housing. …
>
> We are not aware of any prima facie case that a property tax would be desirable, so property taxes are not discussed further. (IRD & New Zealand Treasury, 2009, p. 4)

Yet setting general rates on the basis of capital value is increasingly favoured by councils in New Zealand's fastest-growing urban areas, with the effect of raising housing costs, discouraging development and reducing investment in housing.

Rating based on land value, rather than capital value, would encourage land improvement, including the construction of housing, and could discourage the holding of unimproved land.

Is the difference between land value rating and capital value rating significant?

Despite the theoretical advantage of land value rating in encouraging the efficient use of land, many submitters questioned its practical impact. Tasman District Council submitted that "Whether rates (a property tax) are set on the basis of land value, capital value, or annual value, has no effect on the release of land on to the market" (sub. 25, p. 11). Tauranga City Council (sub. DR102) and Waimakariri District Council (sub. DR109) similarly doubted the effect would be large enough to alter landowners' incentives.

But local government is inconsistent on this point. Porirua City Council considered that "using land value as the basis for rating instead of capital value is unlikely to affect costs as this is just one small part of the rating system". In the next paragraph it advocated for adding general rates to Crown land as it would "incentivise government agencies to dispose of land that is no longer required" (sub. DR88, p. 2).

It cannot be the case that general rates are large enough to shift the incentives of central government landowners, but too insignificant to affect private owners. Nor, if the difference is as trivial as councils submit, is it easy to explain why many councils have been shifting to capital value rating.

The Commission considers that choice of valuation base for general rates does provide an effect at the margin that encourages either holding or developing vacant land. Hamilton City Council's recent adoption of capital value rating provides an illustration of the potential impact (Box 4.4).

Box 4.4 **Hamilton City Council's shift from land value rating to capital value rating**

Hamilton City Council's document proposing a shift from land value rating to capital value rating notes that "[i]t may inhibit development of property to avoid paying more rates" (Hamilton City Council, 2014, p. 6). On the Hamilton City Council website, the addresses of any property can be entered to see the effect of the rates switch. The Commission examined the implication of the switch on the rates for a number of Hamilton properties advertised for sale.

The effect of the switch will be to reduce the carrying costs of undeveloped or underdeveloped land. A large (14 636 m²) undeveloped residential section in Hillcrest, Hamilton East will see its rates decrease by 47% over 10 years, from $18 088.21 a year to $8 654.79 a year. A vacant 474m² section in Nawton will see its rates decrease by 52%, from $1 638.40 a year to $789.39 a year. A large (6 000 m²) section at Rototuna on the edge of the city, with one current dwelling, will see its rates decrease by 18%, from $4 397.38 a year to $3 180.70 a year.

By contrast, rates on more intensive developments generally increase. A block of six older flats in Hamilton East would see its rates increase by 29%, from $3 186.81 a year to $4 102.53 a year. A large modern townhouse in Claudelands that covers virtually its whole site would see its rates increase by 75%, from $1 161.07 a year to $2 028.07 a year.

Source: Hamilton City Council, n.d.

The effect of the rating change to capital value in Hamilton is small but real. The effect is to increase rates on more intensive uses of land, and decrease rates on vacant or underdeveloped land.

F4.8 The use of capital value rating systems makes it less expensive to carry undeveloped and underdeveloped land compared to land value rating systems. At the margin, the use of land value rating systems would encourage land to flow to its highest value uses, including more and denser housing.

Why have councils been moving to capital value rating?

The 2007 Report of the Local Government Rates Inquiry (the Shand Report) recommended the promotion of a common system of valuation for rating purposes, and strongly favoured a capital value system. Councils have accepted in good faith the findings of the Shand Report that capital value rating is preferable. Yet the evidence may not be as clear cut as suggested in that report.

Ability to pay

A major benefit often cited for capital value rating is its supposed fit with residents' ability to pay. For example, Wellington City Council submitted that "it is assumed that people who own higher value properties also have a higher ability to pay than people who own lower valued properties" (sub. 21, p. 52).

The Commission is aware of two national studies into this issue. Both find a stronger relationship between residents' income and the land value of their properties, than between income and capital value.

The first study (Kerr, Aitken & Grimes, 2004; and McCluskey et al., 2006) found that, within New Zealand territorial authorities, the ratio of improved value to land value falls significantly as income rises:

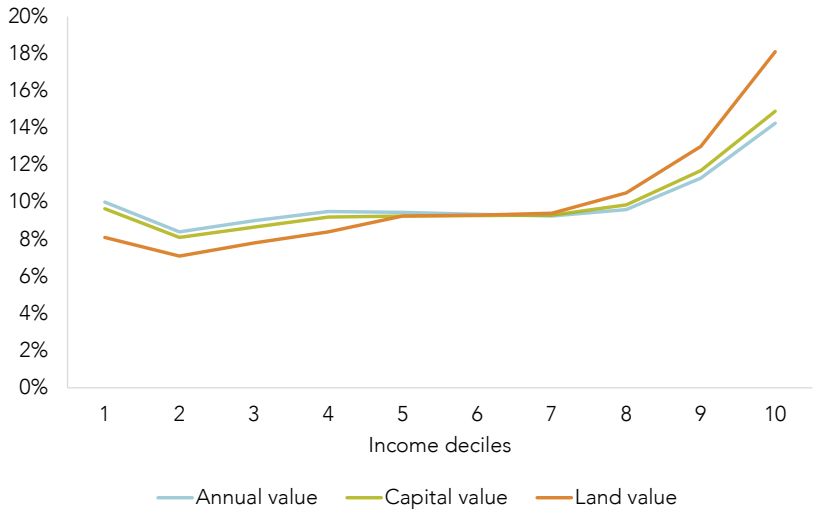
> This result in fact holds in every territorial local authority and in every time period, so is highly robust … These results indicate that a land value tax is more progressive than a capital improved value tax. For a fixed amount of total revenue to be raised, high income people tend to pay more tax in a land tax system because the value of their land relative to the capital value of their properties is greater than the ratio of total land value to total capital value in the TLA [Territorial Local Authority]. (McCluskey et al., 2006, pp. 392–93)

The second study (Covec, 2007)) was undertaken as an input into the Shand Report. It compared the land value and capital value of properties in meshblocks against income deciles:

> [W]e plotted the distribution of property values against income deciles [by meshblock] under each valuation system. Ignoring any differentials, these directly indicate the funding burden that each income decile will bear.
>
> As we can see … lower deciles account for higher shares of CV [capital value] and AV [annual value] than they do of LV [land value], and vice versa for higher deciles. Thus, ignoring any differentials, LV is more progressive than CV, which is more progressive than AV. But what explains these distributional variations? Differences in the distribution of LV and CV stem from the fact that the ratio of improved value to land value falls as income increases. From this it follows that lower deciles account for a higher share of capital values than they do of land values. (2007, p. 33)

Figure 4.2 from the Covec report illustrates this point. Low-income deciles have a smaller share of total land value than capital value; high-income deciles have a greater share of land value than capital value.

Figure 4.2 Distribution of property values across income deciles



Source: Covec, 2007.

The graph indicates the share of property values, under each valuation type, across meshblocks sorted into income deciles. In turn, this shows the share of a general rating burden under each valuation basis. Ignoring differentials, the lowest income meshblocks would bear a larger share of the rating burden under a capital value system than a land value system. By contrast, the highest income meshblocks would bear a smaller share of the rating burden under a capital value system than a land value system. This means land value is a more progressive valuation base for rating purposes, and a better fit for ability to pay.

A good explanation for why these studies find that land value is a better fit with income than capital value is because high-income people tend to live in desirable parts of town, where land is significantly more expensive. Although the improvements (homes) on that land may also be more valuable than homes in other areas of town, the land value effect is stronger.

The Shand Report draws the opposite conclusion to the evidence that was before it from Covec, by focusing on the quality of the fit, rather than the strength of the relationship between the variables. As a result, many officials in local government hold a strong belief that capital value rating is preferable from an ability to pay perspective. Many councils repeated this view in their submission to the Commission, without providing supporting evidence (subs. DR104, DR110, DR132, DR133). Wellington City Council, for example, submitted that land value rating would cause

> obvious fairness and equity concerns where such increases would be incurred by, and further marginalise, lower socio economic households … [that] do not generate incomes which reflect their properties' underlying land values. (sub. DR118, p. 18)

Yet the available national evidence suggests that a concern for the distributional effects of valuation base on low-income communities should lead councils to support land value rating.

Hamilton City Council provided evidence of the relationship between assessed land value, capital value, and data on meshblock income taken from the 2013 census. It finds a better relationship between capital value and income than land value and income in Hamilton.

Both land value and capital value are strongly associated with income and so are well aligned with ability to pay. Some national evidence shows that land value is more strongly associated, but Hamilton City Council has undertaken its own analysis and finds a stronger relationship between capital value and income in its city in 2013. When reviewing their rating policies, other councils should undertake similar studies.

F4.9 Both land value and capital value are strongly associated with income. National evidence shows that the relationship between land value and income is stronger; but councils should review the evidence in their own districts as an input into future local reviews of their rating policies.

Reliability of valuations

Another reason commonly cited in favour of capital valuation is the relatively better data that underpins capital valuations, because fewer sales of bare sections reduce the ability of valuers to assess and compare land values. Annual value rating is better still, because the compulsory lodging of tenancy bonds provides highly accurate information about market rents. Auckland Council expressed the common view that "capital values are more accurate as there is significantly more information available on market transactions for developed land as opposed to vacant land" (sub. DR135, p. 31).

In its draft report, the Commission asked for evidence of greater variance in assessed land value than capital values. No submitter provided any.

A review of the sustainability of council finances in New South Wales (Independent Inquiry into the Financial Sustainability of NSW Local Government, 2006), noted concerns that moving from rating based on land value to capital value "would significantly increase difficulties with valuations and their administration" (p. 213). Given the opposite concerns in New Zealand, this suggests that it is change, rather than inherent difficulties in assessing either valuation base, that is difficult.

F4.10 Although market transactions of unimproved land are fewer, little evidence is available of greater variance in assessed values of bare land than improved land.

Even if assessed land values are less likely to be accurate than assessed capital values, that does not necessarily mean that a capital value rating system should be preferred. Because rating is only a mechanism to allocate a revenue burden between ratepayers, valuation errors only matter for rating purposes to the degree they are different from each other for different categories of properties. So if all properties of all types are undervalued by 15%, this does not impact the rating burden of any individual ratepayer. By contrast, if one category of property is undervalued (say, bare land) then owners of those properties pay lower rates than they would if assessed values fairly reflected genuine market values. It is the variance of assessed valuations that matters.

Chapman, Johnston and Tyrrell (2009) argue that concerns about the inaccuracy of land valuations are misplaced in terms of efficient allocation of resources.

> Mills (1998) and others have demonstrated that the land value tax can be non-distorting in the sense that resource allocations will be the same as those without the tax. The concern with this tax is that land values are difficult to estimate without error. This has led some, including Mills (1998) to discount the practicality of a land value tax, suggesting that the likelihood of incorrect land value assessments eliminates the potential advantages of this form of revenue generation.
>
> The simple model outlined above demonstrates that this claim is overstated. For the case characterized by a Cobb-Douglas production function, a land value tax will have at most the distortion effects of a property tax of equivalent rate, even with the worst possible land value assessment errors. The less productive is capital relative to land, the more advantage the error-prone land tax will have over the

> property tax. That is, by applying a land value tax, one can likely avoid the misallocation of resources imposed by a conventional property tax even when the errors of land value estimation are large. (p. 584)

The authors demonstrate that the benefits of land value taxation exist, even in cases where land values are estimated with error.

If all land in a territorial authority is incorrectly valued, then the distortionary effects of this in terms of the burden of rates may be more significant under a capital value rating system. Additionally, under a land value rating system, valuers may need to pay more attention to the accuracy of assessed land values than under a capital value rating system, which should improve the accuracy of assessed values.

F4.11 The distributional effects of a systematic incorrect valuation of land on the rating burden may be greater under a capital value rating system than a land value rating system.

Matching of funding with benefits received

The final argument commonly used to support capital value is that it is a better fit for benefits received:

> Land values are likely to provide a poor match between funding and benefits received. To see why, consider the following example. Suppose a district contains two identical lots, one of which contains an occupied dwelling and one of which does not. It seems fair to conclude that, for the majority of council services, the occupied dwelling will receive more benefits than the empty lot. However, under LV rating, both properties pay the same level of rates. Clearly then, land values produce a poor fit between funding and benefits.
>
> So what about CV [capital value] and AV [annual value]? Continuing our simple example, the empty lot would continue to receive a lower level of benefit than its occupied counterpart, but would also pay a lower level of rates. Thus, CV and AV rating provide a better match between funding and benefit (at least in this example). (Covec, 2007, p. 36)

Covec notes capital value and annual value are still not particularly strong matches for benefits received:

> For example, a house worth $2m will pay five times as much as a house worth $400k (ignoring any differentials) but is highly unlikely to receive five times as much benefit. Indeed, benefits are more likely to accrue according to household size than property value. (2007, p. 36)

Not all benefits should be funded from rates. Environment Canterbury submitted that "capital value rating … generally represents the consumption of more resources (water, power etc) provided by the local authority" (sub. DR110, p. 9); yet neither water services (in most councils, including Christchurch) nor power (in any council) are paid for through general rates. Chapter 9 recommends that councils make more use of user charges to promote the efficient use of infrastructure. User charges (and commensurately lower rates) provide a number of benefits, including promoting the efficient use of infrastructure and an allocation of cost according to use.

Councils may choose to fund a range of services largely or wholly from rates, such as libraries, parks and reserves, swimming pools, street lighting, community halls, and flood protection. There are a variety of reasons why councils choose to do this, including the public good nature of the service, the difficulties in identifying beneficiaries, or there may be political reasons.

However, Chapter 3 explains how the benefits of these services are capitalised into land prices. The redevelopment and beautification of a local park will increase the value of all nearby properties, including vacant sections. The value of libraries, swimming pools, halls, reserves, street lighting, and flood protection activity undertaken by councils will be reflected in land prices. As Cheshire, Nathan and Overman (2014) note:

> The evidence overwhelmingly shows that the values of all desirable amenities, or locational attributes, of this type are reflected (capitalised) in house and land prices. This evidence has accumulated from an ever-increasing number of hedonic studies of housing markets: that is studies which break down the total price of housing into the prices paid for the particular attributes of the house including the amenities to which its location gives access. (p. 58)

As noted in Chapter 3, the impact of amenities and services on land prices diminishes as distance increases. The value of parks diminishes quite rapidly, but the value of access to a park-and-ride facility might be sustained over a greater distance. Access to more or better council services will increase the price that an owner can sell a property for, whether vacant or built (providing it is zoned for residential use).

Because councils use targeted rates and user charges to fund a range of council services, and the benefit of other services is capitalised into the value of the land, general rates based on land value are a better fit for benefits received by the ratepayer than capital value.

F4.12 Owners of undeveloped land benefit from council services and infrastructure funded from general rates because the value of these services is capitalised into land prices.

Other arguments put forward by submitters

Submitters made a number of other arguments about the relative merits of land value and capital value rating.

- Some submitters pointed to the detrimental effects of land value rating on the agricultural sector (subs. DR93, DR104, DR137). Federated Farmers submitted that land value rating without differentials would be "ruinous" to farmers (sub. DR120, p. 6).
- Some submitters argued that land value rating required the greater use of differentials (eg, sub. DR88). Tasman District Council noted these were open to abuse for "politically contrived reasons" (sub. DR96, p. 5).
- Taupō District Council (sub. 93) noted that its rateable properties were unusual, with hydro and geothermal generators paying 10% of rates, and a large number of holiday homes among its stock of residential dwellings. This underscored the importance of allowing local decisions about rating systems.

With respect to these points, the Treasury's analysis of farm values shows that across all area unit deciles, the share of farms' capital value that is made up of land value is consistently about 60% to 65% (IRD & New Zealand Treasury, 2009); this is quite close to the ratio for residential property in Auckland. Land value rating was the predominant rating system across New Zealand in the middle of the 20th century and continues to be common in rural and provincial districts.

The particular characteristics of the agricultural sector or electricity generators is usually accounted for through the use of differentials, in which rates are levied differently for different groups, often based on the land use. Concerns about the use of differentials are legitimate. But differentials are common, whether an authority uses land value or capital value rating. The Commission has seen no evidence that the use of differentials is more subject to abuse under land value rating than capital value rating.

- The Greater Christchurch Urban Development Strategy (sub. DR112) and Christchurch City Council (sub. DR128) submitted that under a capital value rating system, new properties pay a higher proportion of the total rates collected across the district, easing the burden on current ratepayers and directing the costs of growth towards those properties causing the growth.

New developments should pay for growth-related costs, but this should occur directly. The capital costs of growth should be cost-recovered through development contributions or targeted rates (see Chapters 8 and 9). Where councils do fully recover all of the costs of growth through these mechanisms, then this line of argument would have new dwellings paying twice for growth-related costs.

- Auckland Council (sub. 134) and Hamilton City Council (pers. comm.) emphasised the significant political and administrative challenges that had accompanied their recent shift to capital value rating. In their view, shifting back would cause further significant administrative and public disruption that was disproportionate to any gains that might be realised from land value rating.

The Commission is sympathetic to this argument, particularly in the case of Auckland where the adoption of capital value rating was required by legislation and has been complicated by the merger of several councils.

Summing up: how should general rates be set?

Capital value rating acts as a tax on development; it discourages owners from developing land, though it may make councils more receptive to development as a way of broadening the rating base. Under a land value rating regime, owners of land have an incentive to develop land to its highest value use, including through the construction of more dwellings.

By contrast, a capital value rating regime lowers the cost of holding vacant land. This is particularly true if there is a systemic undervaluation of land value, compared to capital value. It is higher income homeowners who benefit from capital value rating within a territorial authority. There are good reasons to prefer the use of land value as the basis for general rates.

In the Commission's view, the arguments commonly made in favour of rating on the basis of capital value – its fit with ability to pay or benefits received, or the reliability of valuation – are not as strong as is commonly accepted in the local government sector.

The effect of rating on the basis of land value on land supply may not be great, but at the margin such a basis for rating would encourage the development of new dwellings, as well as more intensive development. For these reasons, the Commission favours the use of land value as a rating basis.

F4.13 A good case appears to exist for setting general rates on the basis of land value rather than capital value, to encourage the development and the efficient use of land.

Among councils that submitted, only Bay of Plenty Regional Council was unequivocal in its support for land value as the basis for setting general rates. Councils that use capital value rating show clear resistance to land value rating, in part based on the conclusions in the Shand Report.

The adoption of land value rating would support the release of land for housing, and encourage the more intensive use of high-value land. It would be desirable if the recent trend away from land value rating in New Zealand cities was reversed, because it is a more efficient and fairer way of levying rates.

However, a change back to land value would cause significant administrative costs and disruption, particularly in Auckland and Hamilton. Auckland is already undergoing a period of change that is causing some relatively large swings in rates following amalgamation, and the Commission is mindful that Auckland Council was compelled to adopt capital value rating, at least initially. Because of this disruption, the Commission does not believe that councils should be required to adopt land value rating at this time.

R4.1 When councils review their rating policies in the future, they should review the evidence in this report with a view to adopting land value as the basis for setting general rates.

R4.2 In future local government amalgamations, central and local government should take the opportunity to consider the merits of adopting land value rating to encourage the efficient use of land.

4.5 An idle land tax

In its draft report, the Commission asked submitters about the merits of providing councils with the ability to levy special rates on vacant properties – an idle land tax. Such a tax could encourage owners to develop land or sell to those who will develop it.

Idle land taxes are common in East Asia and parts of the developing world. The Philippines has a tax (of up to 5% of the assessed value) on land within cities which is idle, non-agricultural, and greater than 1 000m^2. Brazil has a tax on vacant land that increases the longer a site is vacant, although it is not consistently applied (McKinsey Global Institute, 2014). Bird and Slack (2004), reviewing land and property tax systems

across 25 countries, conclude that such taxes are rarely effective, in part because of the additional effort that needs to go into designing them and the cost of implementing and administering them.

Most submitters did not express any view on the merits of an idle land tax. Tauranga City Council (sub. DR102) expressed support for the discretionary power to levy additional rates on vacant land that could be developed, but not without reservation. Wellington City Council (sub. DR118) said it would welcome additional powers to tackle land banking. Hamilton City Council (sub. DR114) expressed an interest in further exploration of the idea. Waimakariri District Council (sub. DR108) said that the proposal would be fraught with difficulties. Ngāti Tamaoho Trust was categorically opposed to any disincentive for undeveloped land to remain in that state, and noted that the appropriate use of land was a Western cultural construct that had been historically used to justify the taking of Māori land (sub. DR136).

The Commission agrees such a tax has risks. If applied generally to idle land, the risk is that such a tax would encourage gaming, or lead to token rather than substantive use of land. If the tax was applied selectively, the risk is that such powers could be used in an arbitrary and capricious way. As a result, the Commission prefers more general methods to encourage the efficient use of land, and does not recommend additional powers to tax idle land.

4.6 Non-rateable land

Wellington City Council submitted to the inquiry that

> [c]entral government is a significant landowner in the City but pays no rates. This places a burden on local ratepayers which should be met by the taxpayer. Being required to pay rates may encourage central government to more efficiently use these land and housing assets. This is particularly true where large tracts of land could be more effectively used for housing – for example, over 56 hectares of land in Tawa is for Arohata Prison with most of it in pines and not required for prison purposes. (sub. 21, p. 45)

An LGNZ discussion paper (2015a) on local government funding noted that the Local Government (Rating) Act 2002 provides for various categories of land to be non-rateable. This includes:

- conservation, health and education land, including Crown land that is used broadly for conservation and recreational purposes and land owned or used by District Health Boards or not-for-profit educational institutions, from early childhood to schools, to tertiary institutions;
- land used for religious worship and religious education, or for charitable purposes;
- land used for transport infrastructure (roads, wharves, railways and airports);
- land used by a local authority for conservation and recreational purposes; and
- Māori land of various types.

As LGNZ notes, councils can levy targeted rates for water, sewerage and refuse collection on non-rateable land, but cannot levy other types of rates, including uniform annual charges or general rates. State-owned enterprises and Crown research institutes are fully liable for rates.

LGNZ's discussion paper notes that "[t]here does not seem to be any coherent, principle-based reason why local government should be required to contribute to these services through a rating exemption, especially as local government has no control over the level of contribution it makes, or how that contribution is spent". In the case of transport exemptions, the paper says that "[o]n the face of it, there is no reason why commercial entities such as airports, ports and railways should not pay rates just as other businesses do" (2015a, p. 58).

This exemption has been in place since 1876 when New Zealand's provinces were disestablished and the funding of local government from rates was established. The Shand Report (2007) says that it is "reasonable to assume that exemption of Crown land reflected the historic perspective that the Crown was not bound by the law and the old common law concept that the Crown should not pay tax on the land it owns" (p. 229). However, it also notes that in the United Kingdom the Crown is not exempt from local council taxes, and that in Australia and Canada the federal government provides untied payments to local government (in Canada

this is "in recognition of the valuable benefits received from both provincial and municipal levels of government in Canada").

The Shand Report (2007) points to a 2000–2001 review of rating powers where officials advised that "no single clear and coherent policy rationale has been identified as underlying all the current exemptions" (p. 232), and that the reasons that could justify such exemptions were not strong (Table 4.1).

Table 4.1 Arguments for and against exempting Crown land from rates

Argument for exemption	Argument against exemption
Properties are held for a public good purpose (ie, they are meeting some national good purpose).	Activities on non-rateable land such as hospitals or schools provide local or even wider benefits. However, activities on fully rateable land can also provide considerable benefits for communities. Privately owned businesses can provide employment that sustains whole communities. A private hospital will pay rates, while a public hospital next door will not.
Properties have no or very limited economic use and therefore may not be able to pay rates.	In general this is appropriately taken account of through the valuation system, where land with little ability to generate income will not be valued highly for rating purposes.
Properties do not consume services provided by local authorities, or consume only limited amounts.	All properties benefit to a greater or lesser degree from the broader services undertaken by councils such as roading, planning, and governance. The extent of these benefits will vary. User charges, and the use of targeted rates, can also address this.

Source: Adapted from Shand Report, 2007, pp. 232–36.

The Shand Report points out a number of issues that result from the exemptions:

- ratepayers bear the costs of delivering services that primarily, or in some cases exclusively, benefit non-rateable land;
- the Crown benefits from services whose costs cannot be recovered through targeted rates (such as District Plan administration, or parking services);
- the non-rateable land reduces the total rating base, with the result that either a reduced level of service is provided, or the rates bill on other ratepayers is higher than it would otherwise be; and
- issues of competitive neutrality arise between public and private providers of health and education services.

The Commission agrees that the blanket rating exemption for properties owned by the core Crown does not appear to be justifiable.

F4.14 The rating exemption on core Crown land does not appear to have a principled justification.

Chapter 7 discusses the opportunity to use government land for residential development. Rating Crown land would encourage agencies to use land more efficiently, and release land that is not required. The Crown, in principle, should face the same incentives as the private sector to hold or release land for development.

In Auckland, the core Crown owns 41 100 hectares of land worth $11.9 billion (slightly more than 8% of the city); in Wellington it owns 1 030 hectares of land worth $925 million (around 3.5% of the city). As outlined in Tables 7.2 to 7.4, in Auckland the core Crown owns 72 hectares of land which is unimproved and considered suitable for residential development, worth $224 million; and in Wellington it owns 5.2 hectares of unimproved land suitable for residential development, worth $11.6 million.

Chapter 7 notes that the Government has recently moved to release some Crown-owned land for housing in Auckland. Had the Crown been required to pay rates on this land, much of it may have been brought to market earlier by government agencies.

The rating exemption depends on the use to which the land is put, rather than just the ownership. For example, the NZTA told the Commission that it pays rates on its land holdings and is only exempt from paying rates on land once it is formally registered as a legal road; as a result NZTA doubted that a change would materially alter its incentives to hold, use or release land.

In theory, capital charges (charges levied on the net worth of departments and some Crown entities to reflect the opportunity cost of money) should provide an incentive for agencies to use their fixed assets efficiently, including landholdings. However, baseline adjustments are available to "capital intensive agencies" to cover changes in capital charges, muting this incentive, although these agencies are also supposed to face higher asset management standards.[29] Existing capital asset management expectations do not appear to have encouraged the efficient management of surplus Crown landholdings. Proposed new expectations will require agencies to plan for the eventual withdrawal or sale of assets. It will also require their long-term investment plans to reveal assets that are expected to be surplus to requirements and whether such assets will be subject to formal Crown disposal processes.

LGNZ (2015a) estimates that the rates revenue forgone by councils from all non-rateable land is about $180 million a year. At the margin, this would make government agencies think harder about whether maintaining their holdings is in the public interest.

The Shand Report recommended removing the rating exemptions on Crown land (with a number of exceptions such as the conservation estate, the seabed and foreshore and the beds of navigable rivers, roads, Parliament and vice-regal residences).

Removing the rating exemption on Crown land would be complex, and come at considerable cost to the government, but the Commission recommends that the government investigate the issue. The Commission has not examined the case for removing the rating exemption for other categories of land, such as Māori land or land used for religious purposes.

Unsurprisingly, many councils and local government officials submitted in favour of removing the exemption (subs. DR82, DR88, DR96, DR102, DR114, DR130, DR135). Tauranga City Council (sub. DR102) submitted that the Crown was also exempt from the payment of development contributions, and that this should also be reviewed. Auckland Council submitted that "the main impact of continuing rates exemptions for Crown land is that there will be less funding available for investment in infrastructure" (sub. DR135, p. 31).

However, councils also use a lot of land that is non-rateable, including cemeteries, reserves, gardens, playgrounds, sports facilities, museums, galleries, libraries, and swimming pools. Similarly, no principled reason exists as to why some council facilities are subject to rates but these uses are not. The direct incentive effect of rating council land may be small, because for the most part a council will be paying itself (although it may also have to pay rates to regional councils). But the need to account for these rates through budgetary processes will help councils to recognise the opportunity cost of those land-use decisions.

R4.3 The Government should investigate removing the rating exemption on land owned by the Crown (including on land used for health and education purposes), land used by local government for recreation and community facilities, and the Crown's exemption from other local government fees and charges.

[29] Departments that are "capital intensive agencies" are: the Departments of Conservation and Corrections; the Ministries of Education, Foreign Affairs and Trade, Health, Justice, and Social Development; Inland Revenue, the New Zealand Customs Service, the New Zealand Defence Force, and the New Zealand Police. A number of Crown agencies are also "capital intensive agencies": the Accident Compensation Corporation, District Health Boards, Housing NZ Corporation, NZ Transport Agency, and the Tertiary Education Commission (for tertiary education institutions).

4.7 Conclusion

Some councils perceive growth as costly, both financially and in terms of the amenity of existing residents; this is particularly true in areas that experience the most acute demand for housing. Easing growth costs on existing residents by ensuring growth pays its way is the first step to shifting these incentives.

Owners of developable land face a choice between releasing land for development, and holding it in anticipation of greater future returns. Where such land is scarce, the incentives to hold can be strong. A council's approach to rating can influence these incentives at the margin, but its best response is to designate more land for development and service that land with infrastructure, and facilitate greater intensity of development within existing boundaries. The Crown is also a major landowner in New Zealand cities, and should face similar incentives to the private sector to hold or release land.

5 Regulatory barriers to the growth of cities

Key points

- Land use regulations affect the supply and price of development capacity, by limiting the use of particular pieces of land and adding steps and cost to development. They can constrain the ability of cities to accommodate growing populations by 'building up' and 'building out'. The impacts of tight regulation are most prominent in Auckland, but this partly reflects high demand. If other cities were growing as fast as Auckland, similar effects would be seen elsewhere.
- Overly tight urban limits increase land and housing prices. Many of New Zealand's high-growth cities impose, or intend to impose, urban limits. The limits vary in terms of their permanence and their ability to be adjusted in response to market developments. Councils should ensure that there are mechanisms to promptly review the placement and tightness of urban limits.
- Many high-growth councils seek to protect agricultural soil from residential development through policies such as large minimum lot size rules in rural and urban fringe zones. Such policies are unlikely to encourage the most efficient use of land. Land, like any other resource, will tend to migrate towards its highest value use. Prices indicate the highest and best use of a particular section of land, and should play a more prominent role in planning decisions.
- A number of land use regulations in District Plans have costs that exceed their likely benefits. Examples include minimum apartment sizes and balcony requirements, minimum parking requirements and density limits. Local authorities should remove regulations that do not pass robust cost-benefit tests.
- Other land use regulations can provide net benefits if designed well, but are applied in an overly broad manner in some District Plans. Examples include building height limits and heritage or 'special character' protection rules. Councils should review existing rules, to ensure that those rules are well-targeted and supported by robust analysis.
- Restrictive covenants are a private barrier to the growth of cities. While they restrict the current and future development capacity of land, they can also create incentives for development and allow private individuals to make arrangements that increase their wellbeing. The Commission does not see a strong case to regulate the content of covenants or give local authorities the power to overturn covenants. However, the Commission does think that time limits on covenants, and reforms which made it easier for landowners to modify or extinguish covenants, have merit.
- Key sources of unnecessary regulatory costs are multiple or conflicting objectives in District Plans, inadequate analysis before rules are introduced, and poor overlaps with other regulatory frameworks.
- More use of cost–benefit analysis (CBA) by councils, and technical assistance from central government to help local authorities assess the economically-viable development capacity created by District Plans, would help to reduce barriers to the growth of cities.
- Central government's existing policies and guidance on planning fail to meet the level of analysis now expected of local authorities. *The New Zealand Urban Design Protocol* and the *National Guidelines for Crime Prevention through Environmental Design in New Zealand* should be replaced with material that more clearly demonstrates and showcases high-quality CBA.

5.1 Introduction

Cities with growing populations need to provide for more housing. Broadly speaking, cities can 'go out' (enabling construction at the edge of the city), 'go up' (permitting more intensive development within established areas), or take a combination of the two approaches. The ability of a city to go up or out will depend on a number of factors, including capacity within the existing infrastructure network, local topography, and consumer preferences. However, as was discussed in Chapter 3, the planning system can also constrain the ability of cities to meet the demand for housing.

This chapter:

- considers the impacts of regulation on the cost and supply of housing;
- highlights particular regulations which create significant risks or costs to the supply of housing, by limiting the ability of cities to grow out or up;
- discusses the causes of unduly costly or restrictive regulation; and
- identifies opportunities to raise the quality of land use regulation.

5.2 The impacts of regulation on the cost and supply of housing

Land use regulations in District Plans affect the supply and price of development capacity, by limiting the use of particular pieces of land and adding steps to development processes. In some cases, District Plan rules also impose restrictions or obligations on the types of dwellings that can be built. This adds costs to development, reduces the supply of developable land and choice of dwellings, and adds to the final price of housing.

Increases in the cost of development

Grimes and Mitchell (2015) interviewed 16 Auckland developers to understand how pre-Unitary Plan rules and regulations influenced developments. The report focused on the costs created by rules and regulations, and explicitly did not look at benefits. The developers were selected to provide a range of development types, including greenfield subdivisions, infill/brownfield developments, residential builders, suburban and CBD apartment developers, and retirement village developers. The estimated cost impacts of individual rules are outlined in Table 5.1 below. According to Grimes and Mitchell, "the typical cost range of the total impact of regulations is estimated to vary between $32 500 and $60 000 per dwelling in a subdivision" (these figures exclude Watercare, reserve and development contributions). For apartments, the equivalent impact was $65 000 to $110 000 for each unit (2015, p. 2).

Table 5.1 Cost impacts of Auckland planning rules and regulations

Rule and regulations	Increase in the cost on each dwelling	
	Apartments	Subdivisions
Building height limits	$18 000 to $32 000	No definitive information
Section size / density controls	n/a	$11 000 to $19 000
Site coverage / setbacks / green space	n/a	$5 000 to $10 000
Floor-to-ceiling heights	$21 000 to $36 000	$8 000 to $15 000
Balcony area	$40 000 to $70 000	n/a
Green star ratings	n/a	$4 000 to $7 000
Extended consent process	$3 000 to $6 000	$4 000 to $16 000
Provision of additional infrastructure	n/a	$10 100 to $21 250
Mix of dwelling units	$6 000 to $15 000	n/a
Other urban design considerations	$1 500 to $8 000	$9 000 to $20 000
Heritage and tree protection	No definitive information	$6 000 to $10 000

Source: Grimes & Mitchell, 2015.

Loss of potential housing

Land use regulation can also reduce supply by prohibiting various types of housing, making them uneconomic to produce or limiting the ability of supply to meet consumer demand.

- Grimes and Mitchell's survey of Auckland developers compared the number of dwelling units under the developer's original proposal with the final number in the consented outcome. They found a median loss in capacity of 22%. The loss of capacity in apartments was primarily due to height restrictions or view shaft rules.[30] In other developments, the loss in capacity related to urban design requirements, tree and heritage building protection, and extra infrastructure requirements (2015, pp. 35–36).
- In a report prepared for Wellington City Council on housing and residential growth, The Property Group reported that the introduction of stricter controls on infill dwellings and subdivision had "materially reduced development capacity" in the city (Wellington City Council / The Property Group, 2014, p. 42). Partly as a result of this tighter regulatory regime, The Property Group concluded that the actual forward supply of infill capacity was "in the order of 10 years", not the 28–55 years estimated by Council officers (2014, pp. 54–55).
- A study prepared for the Registered Master Builders Federation and Construction Strategy Group highlighted the impact of a council requirement that terraced housing developments are serviced by a separate garage access laneway: "This reduced the net space devoted to housing within the subdivision, and required larger individual section sizes" (2015, p. 10).
- The New Zealand Housing Foundation commented that an increase to minimum floor-to-ceiling heights in the Proposed Auckland Unitary Plan (PAUP) "increases the cost of an apartment and reduces the number of apartments within the same building envelope. It is difficult to understand the justification for such a rule. This makes for a less efficient use of the land for housing" (sub. 69, p. 9).
- Queenstown Lakes District Council (QLDC) noted that, in reviewing its operative District Plan, it had found that the Plan's rules did not deliver on the objective of promoting housing diversity:
    - Development controls in the High Density Zone are so restrictive as to make meaningful intensification on many sites difficult. In particular, height and recession plan controls make even two storey building form hard to achieve in some locations.
    - There is no Medium Density Zone to provide for more affordable housing typologies such as townhouses, duplexes and terrace housing.
    - Onerous private open space requirements affect development feasibility, and do not necessarily offer significant amenity value. (sub. 56, pp. 3–4)

5.3 Barriers to cities moving out

Specific regulations can have particularly harmful impacts on house and land prices and therefore on housing affordability. This section explores regulations that limit the availability and cost of land by introducing barriers to the outward expansion of cities. The following section looks at regulations that constrain the ability to make the greatest use of land for housing within established urban areas.

Urban limits

All local authorities effectively limit the growth of cities by setting the overall supply of zoned and serviced land. However, many cities around the world have also introduced regulatory limits on their outward expansion. In some cases, urban limits (along with policies that limit investment in roads) were put in place to reduce carbon emissions. In other cases, urban limits were put in place to prevent the encroachment of cities on agricultural and rural land. Some submitters argued that urban limits helped to provide greater certainty for developers and manage the provision of infrastructure (eg, subs. DR89, DR127). Whatever the case for their existence, considerable evidence shows that binding urban growth boundaries can have major effects

[30] Viewshaft rules limit the ability to build up in particular areas of Auckland, so as to maintain public visibility of key geographical icons (eg, hills and volcanic cones).

on new housing supply across cities and on housing prices (Malpezzi, 1996; Ryan, Wilson & Fulton, 2004; Pendall, Puentes & Martin, 2006).

Some of the most compelling work on the impact of an urban limit was done by Grimes and Liang (2009), using Auckland data over 12 years from 1992 to 2004. The authors found that land just within Auckland's Metropolitan Urban Limit (MUL) was valued at about ten times the rate of neighbouring land just outside the MUL. In 2012, the Commission used a similar methodology to estimate the impact of the MUL between 1995 and 2010. The Commission found that the value of the land price differential has increased since the late 1990s, indicating that the MUL has become increasingly binding as housing demand pressures have intensified within Auckland city (NZPC, 2012a).

In work on the impact of Auckland's MUL, Zheng (2013) found that upward pressure on residential land prices on Auckland's urban fringe had a much larger impact on prices at the lower end of the housing market:

> Lower priced land is more often found further out on the fringes of cities. … When an artificial 'fence' delineates residential land from non-residential land on the urban fringe, it limits the supply of lower priced land, with a resulting impact on prices at the lower end of the housing market. (p. 10)

In its *Housing affordability* inquiry, the Commission found that binding urban limits are problematic, as they tend not to be accompanied by greater opportunities for intensification within existing areas and therefore push up land and housing prices (NZPC, 2012a, pp. 115–17). Instead, the Commission recommended that councils adopt "a strategy that allows for both intensification within existing urban boundaries and orderly expansion beyond them" and use alternatives to binding urban limits such as "using infrastructure planning to signal where development will take place" (pp. 117 and 124).

Most of the high-growth cities investigated through this inquiry apply urban limits (Table 5.2), although they vary in terms of their expected permanence. All the limits have been designed with the aim of including sufficient land for expected future urban development needs.

Table 5.2 Urban limits in high-growth areas

City / region	Urban limit imposed?	Comment
Whangarei District	No	Whangarei District Council has an 'Urban Transition Environment' zone at the fringe of the city where smaller-scale development can take place, but where the Council "will resist [infrastructure] service expansion on the basis that it would constitute unplanned expansion of services beyond its predetermined limits" (Whangarei District Council, n.d., p. 1).
Auckland	Yes (proposed)	Proposed Auckland Unitary Plan would establish a Rural-Urban Boundary (RUB) that "defines the maximum extent of urban development to 2040" (Auckland Council, 2013c). All land within the RUB will be identified for future urban use, with staged land release in "approximately ten-year steps" (Auckland Council, 2012b, section D, para 138).
Greater Hamilton	Yes (proposed)	Proposal to embed settlement pattern in the new Waikato Regional Policy Statement
Greater Tauranga	Yes	Settlement pattern embedded in the Bay of Plenty Regional Policy Statement
Wellington	No	Wellington City does not have clear geographic limits around the city. The Council's Northern Growth Management Framework (which is now embedded in the District Plan) seeks to discourage development beyond the "Outer Green Belt as it is considered that continued expansion beyond the Outer Green Belt will not promote sustainable management". However, "provision has been made for some minor subdivision on an incremental basis in these areas".

City / region	Urban limit imposed?	Comment
Greater Christchurch	Yes	Settlement pattern embedded in the Canterbury Regional Policy Statement
Queenstown	Under consideration	The District Plan currently includes provisions to introduce urban growth boundaries as a 'strategic growth management tool', and Arrowtown's urban boundaries became operative in May 2015. Proposed Plan Changes 20 and 21 sought to introduce urban boundaries on Queenstown and Wanaka. These issues are now being considered through the review of the Queenstown Lakes District Plan.

The proposed Auckland Rural-Urban Boundary (RUB) is arguably the hardest limit, in that it is intended to be "a permanent rural-urban interface" (Auckland Council, 2012b). In comparison, the operative Canterbury and Bay of Plenty Regional Policy Statements (RPSs), and the proposed Waikato RPS, contain provisions to modify and review the settlement patterns. Method 14 of the Bay of Plenty RPS, for example, requires that

> [g]rowth patterns within the western Bay of Plenty sub-region shall be regularly monitored and this Statement's provisions relating to urban and rural growth management shall be reviewed in the event that monitoring shows that actual sub-regional growth patterns are or are likely to be such as to render the growth strategy (see Section 2.8) inappropriate. Other triggers for review shall include the occurrence of any one of the following:
>
> (a) The population predictions in Figure 9 of the Western Bay of Plenty sub-region Growth Management Strategy (3 May 2004) vary by more than 10% from actual Census figures for all of the growth for the relevant Census period;
>
> (b) It can be demonstrated that insufficient land exists within all of the Urban Limits shown on Maps 5 to 15 (Appendix E of this document) to cater for growth anticipated to occur within 10 years of the analysis;
>
> (c) It can be demonstrated that exceptional circumstances have arisen in one or more of the management areas shown on Maps 5 to 15 (Appendix E) and a review is necessary to achieve the objectives of this part of the Statement;
>
> (d) Any review of the Western Bay of Plenty Sub-region Growth Management Strategy amends the strategy to the extent that the urban and rural growth management objectives, policies and methods are in conflict; and
>
> (e) As a result of Method 15 an amendment is required. (Bay of Plenty Regional Council, 2014, p. 175)

Method 16 allows minor amendments to the settlement pattern, where a certain set of criteria are met, including "where there is insufficient development capacity in other parts of the sub-region" (2014, p. 176).

F5.1 Many of New Zealand's high-growth cities impose, or intend to impose, urban limits. The limits vary in terms of their permanence and their ability to be adjusted in response to market developments.

All mechanisms to review urban limits in current or proposed RPSs are new; so it is too early to assess their responsiveness to market changes. The SmartGrowth partnership in Western Bay of Plenty has recently commenced a review of its settlement pattern, to:

- Identify new Urban Growth Areas required to accommodate the projected population
- Confirm existing Urban Growth Areas
- Confirm the amount of growth allocated to Urban Growth Areas
- Confirm the sequencing of development of Urban Growth Areas
- Confirm the infrastructure triggers required for development of Urban Growth Areas
- Confirm projections for residential intensification. (SmartGrowth, sub. 27, p. 5)

R5.1 Councils with urban limits should ensure that they have mechanisms to promptly review the placement and restrictiveness of those limits, in light of market developments.

Regulatory barriers on the outward expansion of cities are not always set by local government. In Auckland's case, expansion to the west has been constrained by the Waitakere Ranges Heritage Area Act 2008. The Act was a local bill passed to protect the Waitakere ranges from "unprecedented pressure from urban growth and development, largely due to its location immediately adjoining Auckland" (explanatory note, Waitakere Ranges Heritage Area Bill). The Act requires the Auckland Council to protect the Heritage Area in its spatial plan, Resource Management Act 1991 (RMA) plans and any resource consent decisions, and the RUB has been placed to exclude the Heritage Area. The effect of the Act is to remove 17 000 hectares of land from development, and to constrain intensive development on a further 7 000 hectares. A Regulatory Impact Statement was not prepared for the Bill,[31] and it does not appear that any detailed consideration was given to its possible impact on future development capacity.

R5.2 The Government should ensure that any future legislative proposals to permanently remove or limit specific areas near cities from being developed are assessed for their impacts on housing supply and costs.

In other cases, changes to local government legislation may have made it harder for councils to reach mutually beneficial agreements about how to manage the growth of cities. In the Western Bay of Plenty, the relevant territorial authorities (Western Bay of Plenty District Council and Tauranga City Council (TCC)) have traditionally dealt with growth at the fringes of Tauranga by moving the local authority boundary, so that new suburbs over the border fall within TCC's jurisdiction. This helps to ensure that the growing city is governed by one entity, with one set of regulations and plans.

TCC stated in its submission that changes to the Local Government Act 2002 (LGA) in 2012 have complicated this process:

> The Local Government Act reorganisation provisions were amended in recent years and no longer make specific provision for small boundary changes of this nature. The revised provisions add significant risk and uncertainty to minor boundary adjustments of the nature outlined above, especially in regard to alternative proposals being put forward through the public consultation phase e.g. regional-wide amalgamation. TCC seeks a streamlined process for boundary adjustments that affect sub-parts of a district, especially where they are for growth management purposes to ensure on-going land supply for housing and other urban land uses. (sub. DR102, p. 5)

The 2012 changes to the LGA expanded the range of people and groups eligible to seek a local council reorganisation (defined as including "the alteration of the boundaries of any district or region" (section 24 (d)), and set down a process that the Local Government Commission (LGC) must follow in considering applications for reorganisation. The process requirements include an obligation on the LGC to invite the submission of "alternative applications in relation to the affected area" (Clause 9(2)(d), Schedule 3).

It is not clear that applications for minor boundary changes such as those previously used by TCC would necessarily prompt alternative applications to merge or fundamentally reshape local councils. Nor is it obvious that the LGC would act on any such applications. Even so, the new statutory process and consultation obligations – while appropriate for proposals to abolish or amalgamate local authorities – seem onerous for minor boundary changes that are supported by the relevant local authorities.

R5.3 The Government should amend the Local Government Act 2002, to enable faster and more streamlined approval of minor changes to local authority boundaries.

[31] Preparing Regulatory Impact Statements for local Bills is not currently required.

Rules to protect 'highly productive' agricultural soils

A number of the RMA plans for high-growth cities include policies aimed at protecting 'highly productive', 'versatile' or 'elite' soils from residential development (Table 5.3). Such policies have a historical precedent; three of the 'matters of national importance' listed in the Town and Country Planning Act 1977 (which preceded the RMA) were

> (d) The avoidance of encroachment of urban development on, and the protection of, land having a high actual or potential value for the production of food:
>
> (e) The prevention of sporadic subdivision and urban development in rural areas:
>
> (f) The avoidance of unnecessary expansion of urban areas into rural areas in or adjoining cities (s. 3)

Table 5.3 Agricultural soil protection goals and policies

City / region	Goals and policies in RMA regulatory plans?
Whangarei	**Yes:** objective 6.3.13 and policy 6.4.10 of Whangarei District Plan
Auckland	**Yes (proposed):** rural subdivision policies 29 and 35 of Proposed Auckland Unitary Plan
Greater Hamilton	**Yes (proposed):** objective 3.25, implementation methods 6.1.4 and 14.2.1, Section 6A, policy 14.2.1 of proposed Waikato Regional Policy Statement Objective 1A.6.1 of Waikato District Plan
Greater Tauranga	**Yes:** Policy UG 19B, objective 26 of the Bay of Plenty Regional Policy Statement
Greater Christchurch	**Yes:** Policy 5.3.2 of the Canterbury Regional Policy Statement Policy B.1.1.8 of the Selwyn District Plan
Queenstown	**Yes:** Objective 4.9.3, policy 1.2 of the Queenstown Lakes District Plan

Source: Auckland Council, 2013b; Bay of Plenty Regional Council, 2014; Environment Canterbury, 2013; Queenstown Lakes District Council, 2012a; Selwyn District Council, 2008; Waikato Regional Council, 2013; Waikato District Council, 2013; Whangarei District Council, 2007.

Examples of policies applied by councils to protect agricultural soils include urban limits (discussed above), large minimum lot size rules, stricter subdivision rules and density controls in rural zones, and specification of areas with high amounts of elite soils where development is prohibited or controlled.

F5.2 Most of the high-growth cities investigated in this inquiry have goals and policies in their RMA plans to protect high-class agricultural land from residential development.

Policies to protect agricultural land from development are supported by farming organisations. Federated Farmers in its submission expressed its concerns with

> the potential implications for New Zealand's productive capacity if further land for housing is developed without considering the impact on our productive capacity, particularly in the area of greenfield development. (sub. 51, p. 3)

Horticulture New Zealand said the primary issue for them was "the impact of urban sprawl on rural production systems", as "the impact of poor decisions could be catastrophic on the productive capability of nationally significant production land and threaten food security" (sub. 64, p. 2). Horticulture New Zealand has been actively participating in the planning system to discourage the use of rural subdivision "to support the erection of new dwellings" and "prevent the expansion of urban areas…on to elite or prime land" (p. 4). In their own assessment, "Horticulture New Zealand has been successful for many years in restricting greenfield land supply in trying to minimise urban expansion across elite and prime land" (p. 4).

Local authorities have an obligation to consider the impact of different land use activities on soil and on agricultural activity. The purpose of the RMA is to "promote the sustainable management of natural and physical resources", which is defined in section 5(2) as including "safeguarding the life-supporting capacity of air, water, soil, and ecosystems". In addition, one of the aims of zone-based planning systems is to

prevent incompatible activities co-locating and to manage pressures on existing land-use activities arising from new activities (commonly referred to in New Zealand as "reverse sensitivity").

However, there are a number of issues with regulatory approaches that seek to prevent the expansion of cities into nearby agricultural land. Tensions between the growth of cities and agricultural activities are inevitable, since many cities in New Zealand are located near land that is, or has been, used for agricultural purposes and land uses change over time in response to differing demands. Andrew and Dymond (2013) cite a newspaper article from 1916 bemoaning the subdivision of market garden land in the Hutt Valley – land that now hosts two cities and about 140 000 people:

> [The area] is so close to Wellington that it is gradually being cut up for residential sections. Gardeners have already been driven out of this portion, so the city must look elsewhere for its market supplies. (p. 128).

Because cities are almost always located on or near valuable soils, population growth will lead to development on such land.

F5.3 Tensions between the growth of cities and agricultural activities are inevitable, since many cities in New Zealand are located near land that is, or has been, used for agricultural purposes.

Efforts to prevent 'urban sprawl' may also not be the efficient and effective way to protect 'elite' or 'high-class' agricultural land. Cities make up a very small share of New Zealand's land. According to the Ministry for the Environment (MfE)'s Land Cover Database 2, "artificial surfaces such as urban and built up areas, landfills and transport infrastructure" made up 0.8% of New Zealand's land mass in 2002. And while the amount of New Zealand's land cover made up by artificial surfaces increased between 1997 and 2002, this increase was roughly of the same magnitude of increases due to horticulture and 'other native land cover', and a small fraction of increases due to exotic forestry (Table 5.4).

Table 5.4 Changes in New Zealand's land cover between 1997 and 2002

Land cover class	1997 area (hectares)	2002 area (hectares)	Change in area (hectares)
Exotic forest	1 822 300	1 961 800	139 500
Exotic shrubland	370 900	363 300	-7 600
Native forest (including mangroves)	6 485 400	6 483 100	-2 300
Native vegetation	5 263 400	5 248 500	-14 900
Other native land cover	1 588 400	1 589 100	700
Primarily horticulture	413 000	417 400	4 400
High-producing exotic grassland	8 985 200	8 885 800	-99 400
Low-producing grassland	1 678 100	1 652 300	-25 800
Artificial surfaces	215 000	220 500	5 500
Total	26 821 600	26 821 600	

Source: MfE, n.d.

Note:

1. Figures rounded to the nearest 100 hectares.

Further, as Andrew and Dymond (2013) note, "while 29% of new urban development since 1990 has occurred on high-class land, this represents only 0.5% of all high-class land" (p. 137). By comparison, lifestyle blocks "occupy 873,000 ha, or about 5% of New Zealand's non-reserved land. One-sixth (17%) of these are located on high-class land" (p. 137).

Lifestyle blocks are clearly valued by many New Zealanders, and represent a valid housing choice. The findings of Andrew and Dymond do raise questions about the zoning practices of some local authorities that control rural subdivision by requiring large minimum lot sizes at the fringes of cities or in other rural areas. Large minimum lot sizes may reduce the risk of owners in new residential developments pressuring councils to limit the operation of pre-existing farming operations ('reverse sensitivity'), by creating an effective 'buffer' between housing and agricultural activities. But they also seem likely to tie up large areas of land, discouraging its efficient use for housing.

Several local authorities opposed the Commission's recommendation that large minimum lot size requirements be reviewed. Key arguments made against the recommendation were that:

- versatile soils needed to be protected as a "nationally-significant" asset (TCC, sub. DR102, p. 7);
- larger lots were "more productive for food and fibre" (Western Bay of Plenty District Council, sub. DR104, p.5);
- larger lots made consolidation of land for housing development easier (Western Bay of Plenty District Council, sub. DR104, p.5);
- "ad hoc development in rural areas" needs to be avoided due to the high costs of infrastructure servicing (Auckland Council, sub. DR135, p. 23); and
- there is a need to avoid "reverse sensitivity impacts on existing rural areas" and to maintain "a strong rural economy" (Auckland Council, sub. DR135, p. 23).

The Commission agrees that the need to balance the interests of existing and new residents (ie, through reverse sensitivity impacts) is an important consideration for local authorities. However, the Commission is less convinced by many of the other arguments. In particular, the Commission did not agree that planning rules should be designed to maintain "a strong rural economy". Rather, planning should seek to manage externalities and enable resources to flow to their most-valued use.

Nor was it clear to the Commission why the higher productivity of larger lots required larger minimum section size rules. Where larger lots are more productive, landowners have weaker incentives to break them up, regardless of minimum lot size rules. The removal or easing of lot size rules creates the opportunity for other uses. To the extent that development in rural areas creates high infrastructure costs, these are more appropriately managed through infrastructure pricing that better reflects the actual cost of expanding the network (see Chapter 9 for more detail on infrastructure pricing).

The main argument in favour of large lot size requirements is that it makes larger-scale housing development easier. However, this is largely an argument around the *timing* of development, rather than whether or not development should occur in rural areas. At some point in the future, when housing development occurs, the large lot size requirements will need to be reduced. In this sense, large minimum lot size requirements now can be thought of as a way to retain the ability to develop housing in the future. However, in areas with poor housing affordability and large shortfalls, it would seem sensible to exercise this option of permitting development now.

F5.4 Zoning practices that require large minimum lot sizes in rural areas are unlikely to encourage the most efficient use of land.

R5.4 High-growth councils should review minimum lot size rules, subdivision and density controls in rural zones to ensure they provide the right balance of promoting efficient use of land for housing and managing externalities.

Finally, it is worth recalling that land, like any other resource, will tend to move towards its highest value use. Even where land is used solely for agricultural uses, it may shift between raising sheep and beef to dairy or

forestry depending on the relative prices of each primary product. Where land prices for housing are high, it is not surprising that there will be pressure to convert land from agricultural to residential uses.

Land prices for residential housing are not always higher than prices for other uses. Indeed, Western Bay of Plenty District Council noted that a "significant problem" in their district was "that the value of the land can be greater for the current land use (eg, horticulture) than it would be if converted to housing. This is an issue in our District where both Katikati and Te Puke are effectively being strangled because of the high value of kiwifruit orchards" (sub. 36, p. 8). Brueckner (2000) similarly notes that

> evidence has shown that in regions where agricultural land is productive and its value high, cities are more spatially compact than in regions where agricultural land is unproductive and therefore cheap. (p. 162)

F5.5 Land, like any other resource, will tend to move towards its highest value use. Prices indicate the highest and best use of a particular parcel of land. In some cases, the highest value use will be residential housing; in others, it will be agriculture or horticulture.

Prices contain information about the highest and best use of a particular section of land (unless the supply is artificially constrained in some way). In an unconstrained market, land prices tend to be highest towards the centre of a city, reflecting proximity to employment and valuable amenities. Land prices then 'decay', as the distance from these amenities increases. In theory, the price differential between urban land at the edge of a city and the neighbouring agricultural land should be small. In practice, this is not the case, as was demonstrated by research on the Auckland MUL.

If agriculture is a higher-value land use than housing, this will be reflected in the price of land and there will be no incentive to convert that land into residential use. Planning rules that restrict the ability to convert agricultural land to residential use can inflate prices for existing residential land, and artificially suppress the price of neighbouring land. Allowing neighbouring land to be more easily converted would help ease these pressures, allow land to move to its most valued use, and improve overall welfare. Land prices, especially price differentials between different types of zones, should play a more prominent role in planning decisions.

F5.6 Land prices, especially price differentials between different types of zones, should play a more prominent role in planning decisions.

Some submitters to the draft report challenged the notion that prices should drive land use and play a stronger role in planning. Horticulture New Zealand said that

> it is short-sighted to suggest that prices indicate the highest and best use of a particular section of land. If food security for our growing urban communities is to be protected then the planning framework must support the productive use even if the market land value is worth more in housing or lifestyle use. (sub. DR127, p. 7)

The New Zealand Planning Institute argued that "planning needs to also consider land uses that service urban centres; for example, ensuring that there is sufficient agricultural land available within such a proximity that would not result in higher costs for produce" (sub. DR125, p. 1).

Federated Farmers stated that

> the benefits derived from agricultural production extend beyond the direct benefits derived by the producer from that land use. Primary production offers the opportunity for significant 'value added' through processing, packaging and exporting. This value is not directly reflected in the price of land; as a result 'best use' is captured only in an indirect (downstream economic) sense and is not reflected in relative property prices. (sub. DR120, p. 5)

The Commission disagrees with these arguments, for three main reasons.

- Price signals and the efficient allocation of resources matter for productivity. Artificially suppressing the price of land at the margin of cities to provide "food security" will therefore not contribute to higher prosperity.
- Restricting the ability to convert agricultural land to residential use is an extremely clumsy and indirect way of keeping produce costs down. Other factors, such as greater competition and improvements in the performance of the logistics network, are likely to be better targets for policy interventions. The ability to move production to cheaper, larger lots further away from cities may also contribute to lower costs.
- It is not clear that agricultural landowners fail to gain from the wider benefits from food and fibre production. Such benefits should be reflected in the prices that growers receive from downstream processors. Nor is it clear that such benefits are not reflected in "relative property prices". The experience of horticultural land prices in the Western Bay of Plenty suggests this can be the case.

Overseas investment framework

In the course of the inquiry, the Commission spoke to two developers that are New Zealand-registered companies with enough foreign shareholding to trigger the provisions of the Overseas Investment Act 2005. These developers reported that the overseas investment framework caused unnecessary costs and delay in acquiring land for development.

Foreign-owned companies require the consent of the Overseas Investment Office (OIO) to purchase sensitive land. The definition of "sensitive land" is very complex, and professional assistance may be required to assess whether or not the land being acquired meets the definition. Generally speaking, however, "sensitive land" is usually greenfield land.[32]

These companies told the Commission that they have no problem gaining the consent of the OIO, on the basis that the projects benefit New Zealand. But the process causes additional costs and delays. Where they are competing to buy land against other companies, their offers must be made subject to OIO approval, putting them at a competitive disadvantage.

Where land is purchased by a developer for the purpose of being redeveloped into housing and resold in a reasonable time period, no good reason seems to exist to screen foreign investment. This process is also likely to deter other foreign developers, who may be able to innovate or in time operate on a larger scale than New Zealand firms, from entering the New Zealand market. The Treasury should investigate whether an exemption is justified in these situations.

R5.5 The Treasury should review the foreign investment screening regime for developers with a view to enabling foreign developers to purchase land without gaining consent from the Overseas Investment Office, providing that it is developed into housing within an acceptable timeframe.

5.4 Barriers to cities building more densely

Minimum floor size and balcony requirements for apartments

MRCagney (2014) assessed the impact of minimum apartment floor and balcony size requirements in the PAUP. It sets minimum floor areas of 30–40 square metres (depending on the zone) and minimum balcony areas of 8–10 square metres. MRCagney found that:

[32] According to Land Information New Zealand, "Sensitive land is determined by the types of land and area thresholds detailed in the legislation. While determining sensitive land is sometimes straightforward, often significant legal and land expertise is required, particularly if there are any nearby waterways. In short, sensitive land includes land of a particular type, such as farm land, that exceeds a particular area threshold. For example, five hectares of farm land is considered sensitive land, but three hectares of the same land is not. Land is also sensitive if it adjoins land of a particular type and exceeds an area threshold. For example, three hectares of farm land would be considered sensitive if it adjoined a recreation reserve on the edge of a lake." (LINZ, n.d.)

- these rules were "likely to have a material upwards effect on the costs of small apartments", with an expected price increase of "approximately $50 000-$100 000 per apartment, or 25-50%";
- the rules are "expected to be associated with economic costs of approximately $10 million p.a."; and
- no evidence exists "to support the contention that the PAUP rules will result in material improvements in the well-being of affected residents….the PAUP rules would need to reduce the total burden of illness in the affected population by approximately 9% in order to generate economic benefits that exceeded their costs. Such an improvement in well-being is unlikely." (MRCagney, 2014, p. 22)

QLDC noted that an "8 square metre balcony can add between $30,000 to $40,000 to the purchase cost of an apartment, depending on structural approach". As a result, the Council is now proposing to remove minimum private open space requirements in its high-density residential zone, on the grounds that "the decision on how much and in what form private open space is provided is best left to the market" (sub. 56, p. 4).

A few submitters opposed the Commission's recommendation in the draft report that local authorities remove District Plan requirements to provide balconies for apartments. Auckland Council considered that "the costs of requiring balconies have been overstated, particularly in light of the fact that the market will pay a premium for an apartment with a balcony as opposed to one without" (sub. DR135, p. 21). Allison Tindale pointed out "that reported surveys of apartment occupiers have indicated that this is very desirable feature. Urban Taskforce May 2015 publication 'Urban Ideas' identifies the balcony as the most important feature for occupants of Sydney apartments" (sub. DR84, p. 4).

Auckland Council's response appears to accept the Commission's argument that apartments with balconies cost more, by noting that the price of such apartments includes a "premium". And the fact that balconies are desired by a significant portion of the market strongly suggests that developers and builders would continue to produce apartments with balconies without a blanket regulatory requirement. However, the blanket requirement limits their ability to provide lower-cost apartments, or to meet the demand of people who do not place such a high value on balconies.

F5.7 Balcony requirements for apartments create costs that appear to outweigh any likely benefits.

R5.6 Councils should remove District Plan balcony requirements for apartments.

Minimum floor size rules limit the ability of individuals to trade off private space for location, and limit the supply of smaller, cheaper dwellings, increasing housing costs more widely. As a result, they can have the effect of encouraging crowding and other undesirable behaviours, as people with limited incomes seek to minimise their housing costs (Schlesinger, 2014; MRCagney, 2014, p. 20).

A number of North American cities have relaxed or waived minimum floor size rules in specific cases to allow the development of "micro-apartments" (Wong, 2013; Romney, 2012). In New York, the city government launched a competition to pioneer the development of innovative 25–28 square metre micro-apartments on a publicly owned site. These developments are seen as playing an important role in better matching housing supply with changing demographics (eg, more single-person households) and providing cheaper living options.

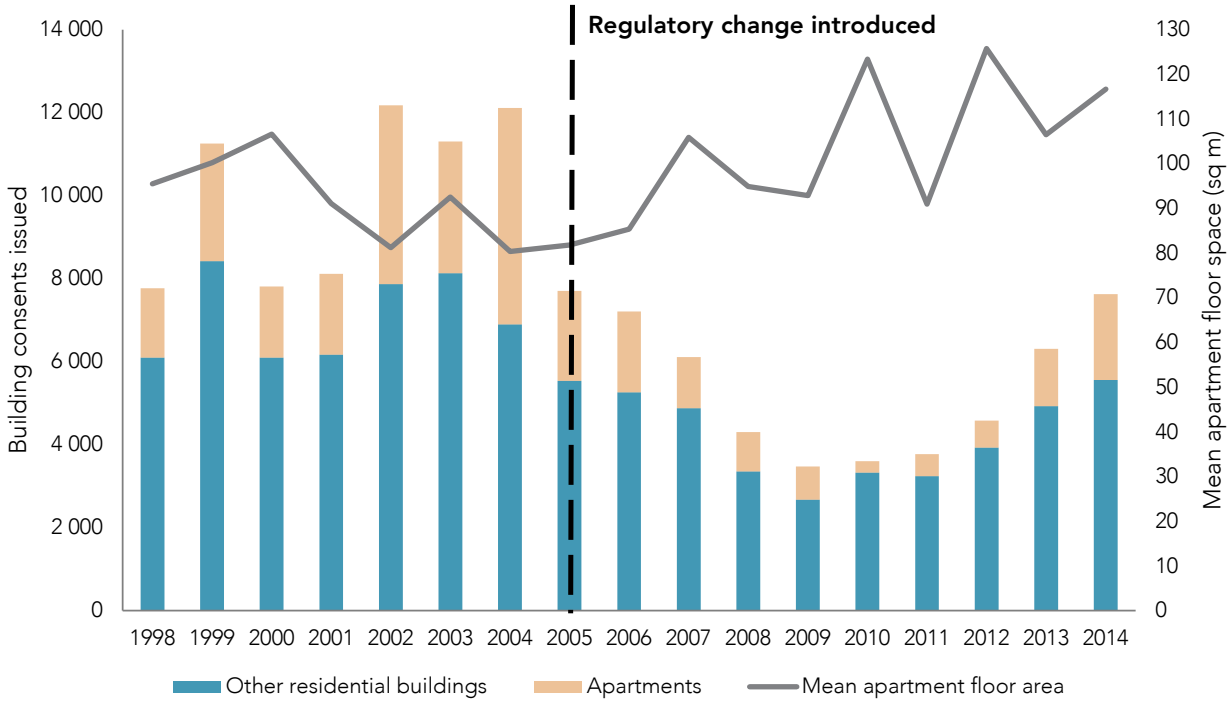
Auckland faces similar demographic and affordability pressures to some North American cities. The Auckland Plan notes that

- over two thirds of Auckland's current housing stock has three bedrooms or more, although nearly half of all households consist of only one or two people, and

- [f]amily types will continue to change over the next 30 years…[with] a greater proportion of couples without children, and a smaller proportion of two-parent families with children. (Auckland Council, 2012b, paras 620–21)

Auckland Council has estimated that the city needs to produce 13 000 new dwellings a year to keep up with population growth and change (Auckland Council, 2012b). Auckland got closest to this level in the years 2002–2004, driven significantly by a growth in apartments. The growth also coincided with falling average apartment sizes. The trend of falling average size stopped after the introduction of Auckland City Council's minimum apartment size rules in 2005 (Figure 5.1).

Figure 5.1 Building consents and mean floor area of apartments consented in Auckland, 1998–2014



Source: Productivity Commission analysis of Statistics New Zealand data.

A number of reasons are cited for the imposition of minimum apartment size rules in New Zealand – in particular, concerns about the adequacy of ventilation, natural light, internal noise insulation and visual amenity (Bird, 2005; Orsman, 2005). While issues such as ventilation, natural light and noise insulation are important, they are better resolved through targeted regulation rather than blunt tools such as minimum size rules. In addition, given that these are largely issues of building safety and sanitation, they are best dealt with through the Building Act 2004 and Code rather than District Plans. The Ministry of Business, Innovation and Employment (MBIE)'s 2014 *Briefing to the Incoming Minister of Building and Housing* noted that a need exists to update the "code and associated guidance relating to multi-unit dwellings (air quality, lighting, acoustics, access etc)" (MBIE, 2014b, p. 14). This work should proceed as a priority, and should include a review of the Housing Improvement Regulations 1947, which currently set down size requirements for different types of rooms and which have not been reviewed for many years. Once this work is complete, urban local authorities should review minimum apartment size rules in their District Plans, with a view to removing them.

F5.8 Controls on apartment sizes were introduced in New Zealand in part because of concerns about the adequacy of ventilation, natural light and internal noise insulation. These concerns are best dealt with through targeted regulation and through amendments to national regulations such as the Building Code and /or the Housing Improvement Regulations.

R5.7 Councils should remove minimum apartment size rules in District Plans, once the Ministry of Business, Innovation and Employment has:

- completed planned work on updating Building Code rules and guidance related to air quality, lighting, acoustics and access in multi-unit dwellings, and
- reviewed the Housing Improvement Regulations 1947.

Minimum parking requirements

Minimum parking requirements (which oblige developers to provide a certain number of parking places with a development) also contribute to higher housing costs.

- Jia and Wach's (1998) study of the San Francisco housing market found that off-street parking (required for each new dwelling unit) increased the price of a single-family dwelling by 11.8% and the price of a condominium by 13%.
- An analysis of a new apartment project for the University of California Los Angeles found that parking requirements added 25% to the cost of building (Shoup, 2005, p. 148).
- Grimes and Mitchell (2015) were unable to accurately assess the impact of parking requirements in Auckland, but reported developer comments that the net cost could be $32 000 for each car park.

Two key reasons for why parking requirements lead to higher housing costs are inefficient use of land and increases in construction costs, especially where parking is provided underground. In New Zealand, land use inefficiencies through the requirement to provide for car parking can be significant. Donovan and Munro (2013) note that many

> cities and towns in New Zealand require approximately one car-park for approximately 30m^2 of gross floor areas (GFA). Every individual car-park typically requires 30m^2 (once space for access and manoeuvring is considered), so these requirements mean that 30m^2 of parking needs to be provided to support 30m^2 of GFA, ie, a 1:1 ratio between space used for parking and floor area. In this situation parking will take up as much space as the development itself. (p. 50)

Minimum parking requirements are often supported on the grounds they can offset congestion on roads, although their effectiveness is contested. Shoup cites evidence from a number of cities of congestion created by drivers circulating looking for "free" parks (2005, pp. 276–94). Donovan et al. (2011), using the example of the Sylvia Park commercial development in Auckland, suggest that

> minimum parking requirements, rather than being a minimum, are actually far in excess of what should be considered 'reasonable.' We should also note that minimum parking requirements are based on surveys results of free, unrestricted parking. Obviously, these demands will be far higher than the 'true' demand. (p. 49)

In effect, parking minimums act as a subsidy to car owners by oversupplying parking and are likely therefore to encourage excess use and congestion. An assessment of the economic impact of parking minimums in Takapuna, Onehunga and Dominion Road (areas considered to be "typical of the medium density, mixed use urban areas in Auckland that the dUP [draft Unitary Plan] expects will intensify in future") found that the costs exceeded benefits by a ratio of 6 to 1 (MRCagney, 2013, p. 39).

To the extent that removing parking requirements creates congestion problems, demand management techniques can alleviate such problems (Donovan et al., 2008). Auckland Council's introduction of variable time limits in its parking places is one example. Wellington City Council is considering introducing dynamic pricing for parking in the central city, with fees changing in response to the number of available parks (Wellington City Council, n.d. a). A similar scheme in San Francisco was found to have reduced "cruising" for parking by about 50% (Millard-Ball et al., 2014).

A number of New Zealand cities have removed or eased parking minimums in their centres, with positive results. Donovan and Munro (2013) attribute the "renaissance" of the Auckland city centre and increased

density to the removal of minimum parking requirements by the then City Council (p. 50). The Property Council New Zealand commented that removing minimum parking requirements for residential development in the Wellington CBD had "really helped create a vibrant central city" (Annex 7 to sub. 33, p. 4) and

> has enabled the market to determine the number of car parks required; and meant that money, which would otherwise have had to be spent on providing car parks, can be spent on better design and features. It has also enabled more affordable housing and apartments to be built. (Annex 9 to sub. 33, p. 2)

In their submissions on the draft report, Wellington City Council, Hamilton City Council and TCC argued that local authorities should retain the ability to set parking controls for outlying suburbs, where "car-based traffic is likely to remain as the predominant transport choice" and the potential for spillovers from insufficient parking on the transport network (TCC, sub. DR102, p. 18; Hamilton City Council, sub. DR114, p. 6; Wellington City Council, sub. DR118, p. 10).

The Commission entirely agrees that local authorities need the ability to manage negative externalities on the transport network, and that the extent of these externalities may vary from one area to another. However, the Commission considers that minimum parking requirements are too blunt and inflexible and probably unfair, in that they do not directly target the causes of the externalities. Charging for on-street parking – including in outlying suburbs – is a more efficient response, and could generate more revenue to pay for other improvements to the transport network.

F5.9 Minimum parking requirements create land use inefficiencies and higher construction costs, contributing to increased housing costs. In addition, they represent an effective subsidy to car users, encouraging excessive use.

R5.8 Councils should remove minimum parking requirements in District Plans and make more use of traffic demand management techniques (eg, variable pricing for on-street parking).

Building height limits

Height limits can significantly reduce development capacity. This has implications not just for housing supply, but also for individual incomes and wellbeing and for the environment (as cities are forced to move outwards, increasing transport times). These impacts are likely to be felt most strongly by people on lower incomes, who are unable to afford the higher housing prices in the inner city that result from the restrictions.

- Ding's (2013) review of height restrictions in Beijing suggested that they had caused

  > housing output to drop by 70%, and land investment to drop by 85%...Unachieved construction space caused by the building height restrictions also leads to a shortage in the housing supply, which in turn contributes to urban sprawl and shift [the] housing demand curve outward. As a result, housing prices increase by 20% and the city edge increased by 12%. (p. 494)

- Bertaud and Brueckner's (2005) welfare-cost calculation of height restrictions in Bangalore found that they were likely to have increased the overall footprint of the city by up to 17%, leading to higher transport costs for people living at the fringe. These higher transport costs made up 1.5%–4.5% of household consumption. Bertaud and Brueckner observed that

  > in a country like India, where vast numbers of people live on the edge of impoverishment, a welfare loss of this magnitude may represent the difference between poverty and non-poverty status for many households. (p. 123)

- Montgomery's (2003) study of the introduction of height restrictions in New York in 1885 concluded that they helped to artificially protect rents and returns on unsanitary and crowded tenement blocks. By inhibiting the development of new, taller residential buildings – which were built to a higher quality than

> the existing tenements – the rules "derailed a natural market process that would have lowered rents and increased quality" (p. 505). Rising vacancies and rent declines that had resulted from "moderate overbuilding" of higher buildings prior to the introduction of the restrictions "reversed sharply over the 1885–87 period" and crowding in some of the Lower East Side tenements increased (pp. 504 and 506).

In the case of New Zealand, Grimes and Mitchell (2015) found that height limits in Auckland had a large impact on the number of units produced in a development. Reductions ranged from 0–29% and, in the single case where capacity was not reduced, the developer was required to significantly change the development's design (p. 29).

NZIER found that:

- Auckland was less dense at its centre and denser at the fringes than would be the case in the absence of land use rules such as height limits[33] (2014a, p. 12); and
- each kilometre a household lived away from the Auckland city centre increased the yearly cost of commuting by $738 (2014a, p. ii).

Building height limits do have a role to play in managing negative externalities created by development, such as overshadowing of neighbouring properties or the creation of wind tunnels in streets. The New Zealand Centre for Sustainable Cities also noted that, in some circumstances, higher buildings may contribute to a deterioration in air quality (sub. DR131, p. 5). However, many of the benefits created by height restrictions are likely to be private and/or localised. Donovan and Munro (2013) state that building height limits

> often become a tool through which local residents seek to block new development. In these cases building height limits effectively get hijacked by pecuniary local interests (ie homeowners) who have a vested interest in constraining the supply of new development in their surrounding areas because of negative localised effects (perceived or real). (p. 49)

In comparison, as noted in the studies cited above, the costs of reduced development capacity, higher housing and transport costs are felt across a city and can be large, particularly for some members of the community. Donovan and Munro concluded that while "tall buildings no doubt do have negative impacts, we have not found any evidence to suggest that the economic costs imposed by building height limits outweigh the economic benefits of increased density" (p. 49).

It is notable that no cost–benefit analysis (CBA) was prepared as part of the section 32 evaluation report for the proposed building height rules in the PAUP (Auckland Council, 2013b, p. 9). Before introducing building height limits, local authorities should consider the relative sizes and distributions of the resulting costs and benefits.

F5.10

Building height limits significantly reduce development capacity. Such restrictions contribute to housing shortages and higher house prices, and force cities to move outwards, increasing transport costs for some residents. They weigh against objectives of increasing urban density and using city land more efficiently. Although building height limits can play a role in managing local externalities from development, they also create costs that are felt across a city.

R5.9

Councils should:

- lift current height limits where it cannot be demonstrated that the benefits outweigh the costs; and
- undertake robust cost–benefit analyses before considering the introduction of building height limits.

[33] The study used a hypothetical three-storey height constraint limit as a proxy for the combined effect of land use regulations.

Heritage and 'special character' controls

Heritage and character controls limit the ability to significantly modify or demolish properties or sites with historic or cultural value. Heritage sites or properties are identified through

- *the Heritage List,* which is maintained by Heritage New Zealand Pouhere Taonga. The Heritage List "identifies New Zealand's significant and valued historical and cultural heritage places", including buildings, structures, wāhi tapu and archaeological sites. The List currently has more than 5 700 entries, with over 7 000 properties. The Heritage List has no regulatory force, and does not provide identified sites or buildings with any protection.
- *Council District Plans.* Other than through private mechanisms (such as restrictive or heritage covenants), District Plans are the primary mechanism by which heritage or character items are protected from modification or destruction.

Heritage controls took on greater significance in District Plans in 2003, when the RMA was amended to add "the protection of historic heritage from inappropriate subdivision, use, and development" as a matter of national importance.

Councils apply heritage and character protection through District Plans in three main ways. The first is to list specific buildings, trees or sites that are subject to tighter development controls. This is the approach taken by TCC. In many cases, the listed structures, features or sites are also identified on the New Zealand Heritage List, although councils may add other items.

The second is to identify particular areas where stricter development controls apply. For example, the Queenstown-Lakes District Plan establishes a "Residential Historic Management Zone around the historic town centre of Arrowtown in which particular controls are applied to conserve the residential heritage and building character" (QLDC, 2012a, pp. 7–15). These controls include

> lot sizes sufficient to provide for low site coverage; using existing buildings to determine street setbacks; limiting multi-unit development; reduced site coverage; strict control on building heights; identification and protection of groups of buildings [and] protection of the historic roading pattern and street trees. (2012a, pp. 7–16)

The third is to set city-wide controls that apply to particular types of structures, features or sites. One example of this is the pre-1944 building demolition overlay[34] in the notified PAUP, under which people wishing to demolish or remove buildings built before 1944 would need to apply for a resource consent and meet a number of conditions, such as assessment of the property against "historic heritage and special character values" (Auckland Council, 2013b, Part 2, Chapter E, section 3.2). Wellington City Council similarly "manages the demolition of pre-1930 buildings in much of the Inner Residential Area in order to maintain townscape character." (Wellington City Council, 2015, Volume 1, Section 4, pp. 1 – 2)

There are benefits to protecting buildings and sites of major historical significance. Such features can be thought of as providing benefits to the wider community, which are not always fully reflected in the price of a house or site or which cannot easily be recovered from fees and charges. However, restrictions on the ability to modify or replace buildings also create costs, most obviously by making it more difficult to increase the housing stock.

These restrictions can have regressive effects. Glaeser (2011) observes of New York City's heritage protection policies:

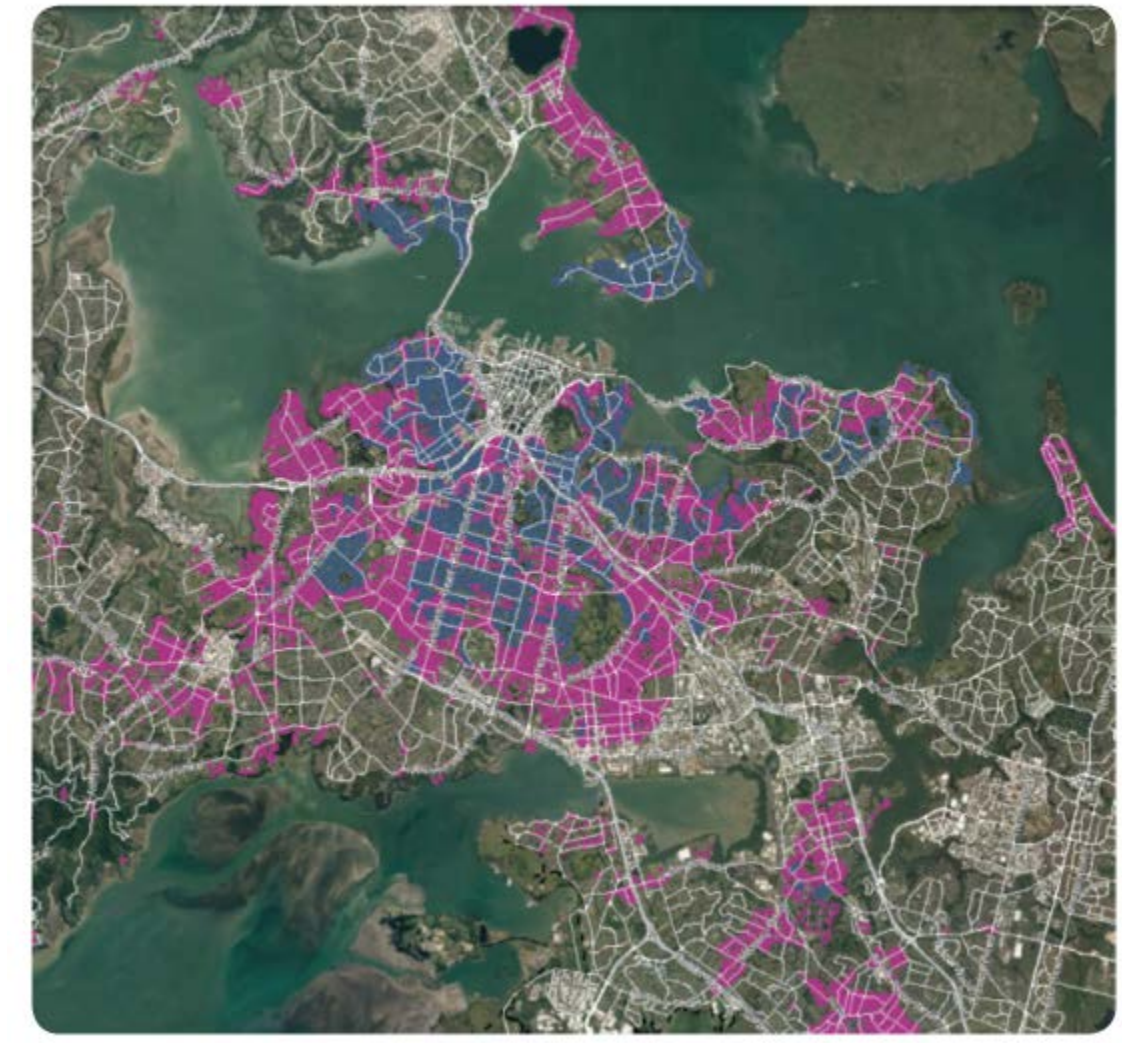
> The cost of restricting development is that protected areas become more expensive and exclusive…The well-heeled denizens of historical districts convincing the Landmarks Preservation Commission to stop taller structures have become the urban equivalent of those restrictive suburbanites who want to mandate five-acre lot sizes in order to keep out the riffraff. It's not that poorer people could ever afford 980 Madison Avenue, but restricting new supply anywhere makes it more difficult for the city to accommodate demand, and that pushes up prices everywhere. (p. 150)

[34] An 'overlay' is a rule or policy that applies across multiple zones or the entire region covered by a District Plan.

F5.11 Protecting buildings and sites of major historical significance can provide benefits to the wider community, but also create costs, most obviously by making renewing and increasing the housing stock more difficult.

The wider the reach of a heritage policy or rule, the larger the likely costs. In the case of the PAUP pre-1944 building overlay, the Property Council estimated that it would "cut 30 000-40 000 intensification dwellings off the [Auckland Council's] targets" (Annex 1 to sub. 33, p. 23). An assessment of the overall impact of the Draft Auckland Unitary Plan by Boffa Miskell and Cranleigh concluded that "[r]emoving pre-1944 building stock…further reduces the available land [for housing] by 700ha" (Property Council New Zealand, annex 4c to sub. 33, p. 19). A graphic prepared by lawyer Stuart Ryan shows the cumulative impact of the special character zones in the operative District Plans (purple) and the proposed pre-1944 overlay (coloured pink) of the PAUP on the housing stock in the Auckland isthmus (Figure 5.2).

Figure 5.2 Coverage of special character areas and pre-1944 overlay on central Auckland



Source: Ryan, 2013.

F5.12 The wider the reach of a heritage protection policy or rule, the larger the likely negative effects on housing supply.

Restrictions on the redevelopment and replacement of older houses also affect the ability to renew, and raise the overall quality, of the housing stock. Older houses were built to lower builder standards and lack many of the features of modern housing that contribute to better health outcomes and higher energy efficiency (eg, full insulation, double glazing) (Cheshire, 2013, p. 178).

While the requirement to undertake a heritage assessment as a condition of approval to remove or demolish does not prohibit development, it is highly likely to make it harder and more expensive. In the case of the Wellington City Council rules, the District Plan states that there is "a strong presumption against the demolition of pre-1930 buildings unless the above analysis indicates that the existing building makes little contribution to valued aspects of the townscape character" (Wellington City Council, 2015, p. 4/10).

The section 32 evaluation report prepared for the Auckland pre-1944 overlay rule acknowledges some of the direct costs, but does not explore the indirect costs (eg, costs associated with notifications and hearings for any resource consents) in any detail:

> The direct cost to applicants associated with the rule will be conservation architect services to assess the historic values of a building….The costs of this type of assessment may vary considerably from $3,500 for a building with no established values to around $7,000 if a building has demonstrated values and there is a sound body of evidence to support it. Indirect costs for applicants may include potential for delays caused by the commissioning of these reports prior to lodgement with Council, and delays caused by Council's process to reach a decision. The rule may also affect the property values of sites covered by the overlay. Some landowners and purchasers may choose to retain sites as "single houses" and not risk re-development. This could have an impact on growth projections for Auckland, with more intensification required in other parts of Auckland. The overlay could also have a similar effect on business zoned land and curtail or limit re-development opportunities. (Auckland Council, 2013d, pp. 8–9)

In addition, while the pre-1944 demolition control was justified on 'precautionary' grounds, no similar caution was taken around the possible impacts of the regulation on housing supply. The Auckland Unitary Plan Independent Hearings Panel recently criticised the pre-1944 overlay for its "lack of robust s32 analysis and evidence to justify [its] inclusion" (p. 5). The Independent Hearings Panel also observed:

> There is also no evidence to show that [pre-1944 buildings] are at any significant risk of demolition or relocation or that the areas where there are pre-1944 buildings are at risk of losing their character….The Panel is also concerned that this provision has not been assessed in the wider context of the strategy of the PAUP for a more compact and higher density city…In light of the above, it is the Panel's view that the Pre-1944 Demolition Control Overlay is placing unnecessary constraints and burdens on landowners seeking to develop their properties. (2015a, pp. 4–5)

The evaluation report prepared for the plan changes that introduced pre-1930 demolition controls in the Wellington suburbs of Newtown, Berhampore and Mount Cook similarly lacked an assessment of the negative impacts on housing supply. If anything, the Wellington reports appear to have considered the emergence of more intensive developments in these suburbs as a threat:

> …multi-unit developments have introduced a significantly different style of housing into suburbs that traditionally feature one or two storey wooden villas or cottages, and one house per site. (Wellington City Council, 2007, p. 6)

F5.13 The wider costs and impacts of imposing heritage and special character protection policies and rules, which can be substantial, have not been fully accounted for in the underlying analysis supporting such policies.

Given the potentially large and negative impacts on housing supply, it is important that all Councils:

- carefully assess the costs and benefits of their heritage protection policies, especially on housing supply;
- tightly focus their polices on structures or items with high, genuine and significant historical or cultural value (ie, identifying individual protected sites, rather than imposing wide-ranging rules); and

- avoid introducing wide-ranging heritage or special character policies or areas, which restrict the redevelopment of a large share of the housing stock.

R5.10

Councils should:

- undertake a review of their existing heritage and special character protection policies, carefully assessing the costs and benefits of such policies and their impacts beyond protected areas, and identifying constraints imposed on housing supply;
- tightly focus heritage and special character polices on specific structures or items with high, genuine and significant historical or cultural value; and
- avoid introducing wide-ranging heritage or special character policies that restrict the redevelopment of a large share of the housing stock.

Density limits

All planning systems affect how densely a particular area can be developed, through the application of controls such as minimum lot sizes, height limits, site coverage rules and greenspace requirements. Some RMA plans also set explicit limits or targets for the number of dwellings that can be built in a specific area. Examples include the Proposed Auckland Unitary Plan (as notified), the proposed Waikato RPS, and the operative Bay of Plenty and Canterbury RPSs (Table 5.5).

Table 5.5 Density controls in proposed and operative RMA plans

RMA plan	Density controls
Proposed Auckland Unitary Plan (as notified in September 2013)	The notified PAUP set the following maximum density limits for residential zones: • **Large Lot zone:** one dwelling per site. • **Rural and coastal settlements zone:** one dwelling per 4000m² net site area. • **Single House zone:** one dwelling per site. • **Mixed Housing Suburban:** one dwelling per site; or one dwelling per 300m² net site area (subject to setback, width and frontage conditions); or one dwelling per 200m² net site area (subject to setback, width and frontage conditions). • **Mixed Housing Urban:** one dwelling per 300m² net site area; or one dwelling per 250m² net site area (subject to setback, width and frontage conditions); or no density limits where four or more dwellings are proposed and minimum site area, frontage and other conditions are met.
Proposed Waikato Regional Policy Statement	Proposed RPS includes the following 'average gross density targets': • Hamilton Central Business District (50 households a hectare); • Hamilton Intensification Areas (30 households a hectare); • Hamilton Greenfield [Rototuna, Rotokauri, Ruakura, Peacocke] (16 households a hectare); • Greenfield development in Cambridge, Te Awamutu / Kihikihi, Huntly, Ngaruawahia, Raglan/Whaingaroa and Te Kauwhata (12–15 households a hectare); and • Greenfield development in Waikato District rural villages where sewerage is reticulated (8–10 households a hectare).
Operative Bay of Plenty Regional Policy Statement	The RPS sets the following 'residential development yields': • **Greenfield urban growth areas:** an average net yield of 12 dwellings or more per hectare from 1 July 2012, rising progressively to 15 dwellings or more per hectare by 1 July 2037

RMA plan	Density controls
	• **Urban intensification areas:** an average net yield of 20 dwellings or more per hectare of developable land within each urban intensification area.
Operative Canterbury Regional Policy Statement	The Canterbury RPS sets the following density targets: • 10 lots or household units per hectare in Greenfields Areas in Selwyn and Waimakariri District, • 15 lots or household units per hectare in Greenfields Areas in Christchurch City, • 50 lots or household units per hectare for intensification development within the City Centre Area; • 30 lots or household units per hectare for intensification development elsewhere as identified in the Christchurch City Plan.

The PAUP provisions differ from the others in that they set *maxima* that should not be exceeded, while the other plans seek to increase the density of development.

Density limits are generally used to protect the 'amenity' or 'character' of a neighbourhood. However, density limits are very blunt tools that are likely to have negative impacts on innovation and affordability, as Raewyn Catlow commented:

> [D]evelopers will usually choose to develop a greater number of small houses rather than a lesser number of large houses if they are not constrained by density. It follows that, the smaller the site, the smaller will be the dwelling, the less it will cost to produce the more affordable the house and land package will be. It will also increase the rate at which housing supply is augmented. As an example, take a typical 1:500m² density control on a 1000m² site. If this was removed most developers would choose to construct three or four small houses rather than two big ones. The cost of the land will be spread between four houses instead of two, and the cost of constructing four small houses will clearly be less than the cost of constructing two large ones. (sub. 87, p. 1)

Mark Todd of Ockham Holdings Ltd similarly noted that density limits restrict the ability to produce smaller, more affordable housing:

> Density, as defined in the PAUP, economically precludes the production of smaller one, two and three bedroom units. A density of one dwelling per 200sqm in any existing brown field location will not result in a small affordable house on that lot – it is an economic impossibility. Because unit size and section size are the metrics that are most closely correlated with affordability, the PAUP density definition is a failure and runs counter to the aims of the AP [Auckland Plan] because it precludes 'density' levels that promote affordable housing typologies. (Ockham Holdings Ltd, 2014, p. 15)

Minimum section size rules have the same effect as maximum density limits, and academic literature provides considerable evidence about the upward pressure that section size minima put on house prices (eg, Glaeser & Ward, 2009; Glaeser, 2011, p. 192; Zabel & Dalton, 2011). Although minimum lot sizes can sometimes be justified in rural or other areas where septic tanks are necessary, this is not the case in metropolitan areas.

Todd and Catlow argue that the externalities arising from denser and more intensive development (eg, overshadowing) would be better managed by clearer rules about overshadowing, the bulk and location of buildings and requirements to retain a minimum proportion of green space (ie, grass, soil or other permeable areas that can absorb stormwater runoff) (Raewyn Catlow, sub. 87, p. 1; Ockham Holdings Ltd, 2014, pp. 18–22).

Since the notification of the PAUP in September 2013, Auckland Council has submitted changes to the residential zone provisions for mediation before the Independent Hearings Panel, which would ease some of the density limits and create the opportunity for further densification (Auckland Council, 2015).

F5.14 Limits on density – either explicit restrictions on density or implicit controls such as minimum section size rules – are blunt tools that have a negative impact on development capacity, affordability and innovation. Externalities arising from more intensive development can be better managed through other controls and policies.

R5.11 Councils in high-growth cities should avoid introducing explicit limits on housing density, and review existing limits with a view to lifting them.

Covenants

Restrictive covenants in new subdivisions are a very common feature of property development in New Zealand. The mayor of one fast-growing New Zealand city told the Commission that all subdivisions in their area were subject to detailed covenants. Typically, such covenants will prevent the erection of more than one dwelling on each lot and prevent further subdivision of the land. Any landowner can enforce the provisions of the covenant against another landowner, and covenants typically continue in perpetuity.

The Commission was also told that covenants are increasingly binding landowners with respect to more detailed matters, such as requiring minimum floor areas or minimum costs of a dwelling, banning off-site construction, controlling detailed landscaping decisions, or purporting to prevent certain vehicles being parked on the property or even on the adjoining road (Box 5.1).

Box 5.1 **Examples of subdivision covenants**

The covenants at Karaka Harbourside Estate in south Auckland are good examples of the restrictions in many new subdivisions.

- No further subdivision is permitted.
- The developer must approve in writing the dwelling and landscaping plan, including the design and location of fencing, paths, driveways, plantings, and external amenities.
- The dwelling must have a floor area of not less than 180m². The dwelling must not be rectangular or square, and the roof must have at least three planes (unless it is a flat roof).
- The types of construction materials that can be used are restricted. Fibrolite, hardiflex, hardiplank or similar products are prohibited. Flat plywood wall-cladding is prohibited unless it is coated externally with a plaster or rendered finish. Second-hand material is prohibited apart from decorative stone or timber.
- Fences may not be more than 1.8m tall or built of corrugated iron, cement fibreboard, fibrolite, hardiflex, hardiplank or similar flat sheet products (unless coated externally). No fence can be erected on the front of property, and no side fence is permitted any further forward than the front of the dwelling. Fences adjoining a reserve may not be more than 1.2m tall, and must be translucent.
- The sizes of antennae and satellite dishes are restricted. They must not be visible from the road; nor must the washing line or any heating or air conditioning equipment.
- Garages must be attached to the dwelling. No other structures, including caravans, huts and carports, are permitted, with the exception of a small garden shed with a factory colour finish.
- The front yard may have no fewer than two trees of at least 2.5m height. Grass must not exceed 150mm. Trees or vegetation may not grow higher than 5m.
- The letterbox may not be more than 1 200mm x 1 200mm x 600mm and must be of the same construction material as the exterior cladding of the dwelling.

- The exterior of the dwelling must be completed within 6 months, and interior within 12 months of commencement.
- The owner may not permit any occupant to park any caravan, boat, trailer, truck, commercial vehicle or van on the road. The owner may not park any vehicle of any type on the road at any time.
- The developer can grant exemptions to non-compliant dwellings or landscaping at its sole discretion. The developer can nominate another person or persons to exercise any approval functions in the future.
- The owner may not object to the developer's future activities.
- A penalty of $500 each day is payable for being in breach of the covenant.
- The requirement to pre-approve the dwelling and landscaping plan expires at the end of 2016. All other requirements, including permitted and prohibited construction materials and landscaping, continue indefinitely.

The covenants for Karaka Harbourside Estate are fairly typical of the subdivision covenants that the Commission reviewed, although each is different. Four examples are noted below.

- Kaipara Meadows in Kaukapakapa, west Auckland, requires dwellings to have a minimum value of $350 000 in 2012 dollars, prohibits overhead power and telecommunication lines, prohibits bright or vibrant colours, and has a penalty of at least $20 000 for breaching the covenant.
- Stonebrook in Selwyn prohibits multi-storey dwellings on most lots, prohibits owners from using the land "in any way which in the reasonable opinion of the Developer detrimentally affects the amenities of the neighbourhood including permitting noise to escape from the Land which is likely to cause offense or a nuisance to occupiers of other land", and allows the developer to enter the land with 48 hours' notice to monitor compliance with the covenant.
- The Lakes in Tauranga requires dwellings to be at least 100m^2 (pre-built or transportable dwellings require the developer's written approval).
- In Parklands, Napier, where the developer is the Napier City Council, the covenant appears no less restrictive than usual. Only single-storey homes of at least 185m^2 or 175m^2 (depending on the lot) are permitted, relocatable structures are prohibited, granny flats are prohibited, and a breach of the covenant carries a penalty of 25% of the dwelling's value.

Source: Kaipara Meadows, n.d.; Karaka Harbourside Estate, n.d.; Parklands Residential Estate, 2015; Stonebrook, n.d.; The Lakes Tauranga, n.d.

Submitters had mixed views on whether or not restrictive covenants unduly restricted the carrying capacity of land. Developers did not consider that covenants were a problem:

> Covenants have not impacted on the supply of land. Covenants are all about giving comfort to purchasers that the amenity value in the development is going to be maintained. (Carrus, sub. 10, p. 6)
>
> In TGH's [Tainui Group Holdings] experience, the use of covenants in new housing developments is extremely common. In TGH's experience, the use of covenants does not impact on supply and has limited impact on demand. (Tainui Group Holdings, sub. 53, p. 3)

Evan Keating submitted that the goals of ensuring adequate supply of land for housing, including through the more intensive use of land "can be undermined by the use of such covenants and currently there is nothing that local councils can do to alter them" (sub. 35, p. 1).

Most objections to covenants related to their exclusionary effects, or overly detailed nature:

> Private covenants seem to provide an elevated social status for a subdivision. This reassures buyers that their housing investment is assured a set of aesthetic standards and commands a higher land price due to its exclusiveness. This causes affordability issues for lower income people. It is in effect social discrimination by post code. (Ralph Broad, sub. 3, p. 3)

> Covenants are very common for new greenfield housing developments and can help play a role in ensuring the marketed subdivision concept is maintained during its build out. Covenants will however often be unnecessarily restrictive (e.g. no relocations, on-site construction, minimum building platforms, etc) and sometimes misused, becoming overly pedantic and dogmatic (front door colour, gardening dress code, etc). Whilst recognising that developers have a desire to protect the value of their development this blunt mechanism often stifles creativity, innovation, diversity and affordability. The need for covenants for anything but the initial phase of a development is also questionable. (Greater Christchurch Urban Development Strategy Partnership, sub. 18, pp. 9–10)

TCC pointed to some particular examples of covenants being used in a concerning way:

> In one instance a developer has used covenants to prevent sections in its subdivision being used to provide road access or services to adjoining land zoned for residential development. … The site has the capacity to deliver approximately 200-250 sections. TCC looked to applying to the Court to change these covenants as well as to designate under the Public Works Act to deliver the necessary infrastructure, however legal advice suggested there was significant risk in being able to overcome the covenants and even if this was achieved significant financial compensation may be payable to those that could claim they had relied on these covenants. The Commerce Commission also advised that the covenant was unlikely to be in breach of section 28 of the Commerce Act which prohibits covenants that substantially lessen competition. Ultimately TCC has been unable to do anything about the situation. (sub. 47, pp. 25–26)

F5.15 Covenants established in new subdivisions are increasingly common and impose detailed restrictions on purchasers.

Covenants, by their nature, restrict certain uses of land in the future, and restrict the supply of land for housing in two main ways.

- As subdivisions are established, they impose more restrictive planning rules than are provided for in District Plans, restricting the capacity of the land to carry dwellings. So, for example, a covenant might prohibit secondary units (granny flats) even though they may be allowed by council rules.
- As these covenants and the subdivisions age, the covenants prevent the redevelopment of a neighbourhood (for example, through the construction of infill housing) that would otherwise occur.

Covenants can also increase the cost of housing:

- through direct requirements that dwellings are of a minimum cost or size (larger than required by council rules); and
- by prohibiting efficient building techniques, including the use of building materials that may be developed in the future.

F5.16 Covenants reduce the flexibility of use of land now and in the future, and increase the cost of constructing dwellings.

In the Draft Report, the Commission sought comment on the need for controls on the use of covenants, to prevent undue restrictions being placed on the supply of land for housing now and in the future. Options cited for restricting the use of covenants included:

- placing a time limit on subdivision covenants;
- restricting the subject matter of covenants;
- allowing councils to void provisions of covenants that are inconsistent with local plans; and
- providing easier mechanisms to extinguish covenants.

In considering the case for any new regulatory controls, it is important to keep in mind the benefits that covenants create. Covenants can play an important part in encouraging development. By placing binding restrictions on how the land can be used, prospective purchasers can receive assurance as to the quality of the development and therefore support for the value of their purchase. The reduction of risk can be particularly important for early purchasers, allowing them to invest with confidence in what will follow. Reducing risks for buyers increases the likelihood and pace of sales for developers.

In addition, covenants allow landowners to introduce restrictions that provide a higher level of amenity than is provided for in planning regimes, or which better reflect the preferences of the individuals concerned. The prevalence of subdivision covenants is prima facie evidence that they are valued by landowners. A 1984 UK Law Commission report concluded that prohibiting the use of covenants would "serve to curtail a freedom which people do in fact exercise to a very considerable degree" (quoted in UK Law Commission, 2008, p. 132).

F5.17 Covenants provide a number of benefits, including encouraging development by reducing risks for buyers and sellers, and allowing landowners to set rules and conditions that reflect their preferences. Regulatory controls on covenants should reflect both the costs and benefits of covenants.

Because of these real and potential benefits provided by covenants, the Commission was wary of wide-ranging regulatory controls. Restrictions on the subject matter of covenants would limit the opportunity for private individuals to make welfare-enhancing arrangements, as would allowing councils to overturn covenants that are inconsistent with the District Plan. Some submitters argued that giving councils the ability to void covenants would be undesirable because it:

- would significantly increase the workload of local authorities (Allison Tindale, sub. DR84, p. 2); or
- could undermine the overall effectiveness of covenants, by allowing members to opt out of their commitments:

> If power was given to Councils to over-ride covenants, they would undermine the whole value of covenants. You could have for example, a person approaching the Council to get the covenants on their section overridden and they proceed to build a bach in a residential subdivision and they have no regard to maintaining it nor their section. Would you like to have invested in a $500,000 house and then have an eyesore built next door? (Carrus Corporation, sub. DR78, p. 1)

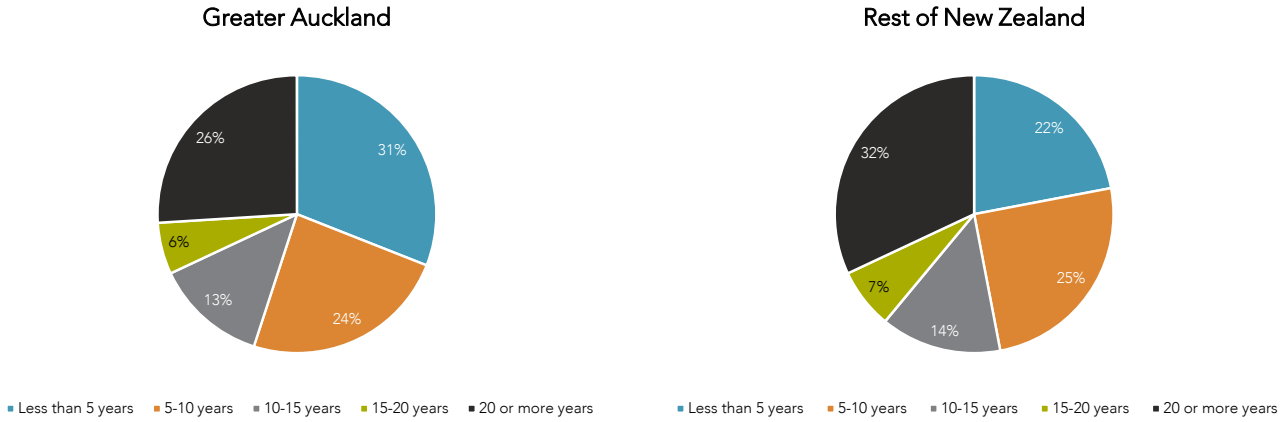
The Commission did consider that there was more merit in options that made it easier for participants to extinguish covenants. Under current arrangements, covenants can only be modified or extinguished by the agreement of all landowners who benefit from them, or by a court order. The courts have broad grounds to extinguish or modify covenants, and the power to order compensation. However Mead and Ryan (2012) argue that the courts in practice will prioritise the private considerations of landowners, rather than any public interest.

While the requirement for *all* landowners to agree helps to ensure that covenants provide a credible commitment, it also makes it significantly harder to change covenants and creates the potential for a small minority to 'hold out' against changes preferred by most. One option would be to reduce the proportion of landowners required to agree to covenant changes from all to a super-majority (eg, 75%). This is the approach taken in reforming the unit title legislation, where the previous requirement for all unit owners to agree to significant change has been reduced to allow the more efficient operation of multi-unit buildings (Jones, 2008). In a number of Australian states, unit title reforms have reduced, or sought to reduce, the threshold required to terminate unit plans, to enable the easier redevelopment of older apartment blocks (eg, New South Wales Office of Fair Trading, 2015). Such reforms would need to be designed to ensure that all affected landowners are adequately informed of proposals to change or remove covenants, and that votes are fairly and transparently run.

Another option is to place a statutory time limit on the duration of restrictive covenants. For example, in Massachusetts in the United States, burdens exist for 30 years and can be renewed every 20 years. Ontario, Canada, limits the term of covenants to 40 years (Scottish Law Commission, 2000, pp. 73–74). Some developers limit the terms of their own covenants. The Commission met with a number of Australian developers who said that they commonly established covenants that expired upon completion of the last dwelling in a subdivision. This practice appears to be more common in Australia than in New Zealand.

The challenge with this option is finding the appropriate period after which a covenant should expire. The Victorian Law Reform Commission recommended a maximum duration of 20 years, on the grounds that "more than 90% of homeowners who take out a mortgage to buy a home will not be there in 20 years' time" (2010, p. 91). Introducing a sunset provision on this basis would enable the initiators of covenants to enjoy their benefits, while helping to ensure that subsequent purchasers are not unduly restricted in their ability to use their property. Analysis conducted by CoreLogic of residential sale periods suggests that turnover of houses in New Zealand is somewhat less rapid than in Victoria, although over half of properties sold in 2014 had been held for less than 15 years (Figure 5.3).

Figure 5.3 Hold period for residential sales in 2014



Source: Goodall, 2015.

This suggests that a suitable sunset period for New Zealand covenants would need to be longer than the 20 years proposed for Victoria. A statutory expiry date in the vicinity of 25 to 30 years would cover the majority of house sales. Other confirmation for an expiry period in this range comes from research from the United States, which shows that the effect of covenants on house prices (reflecting capitalised higher amenity) falls to zero after 25 years (Rogers, 2010).

R5.12

The Ministries of Justice and of Business, Innovation and Employment should review the legislative provisions governing covenants with a view to:

- reducing the proportion of landowners required to agree to covenant changes from all to a super-majority; and
- introducing a statutory sunset period on restrictive covenants of 25–30 years.

5.5 Problems with regulatory development

Three sources of unnecessary regulatory costs emerged from the inquiry:

- multiple or conflicting objectives in RMA plans;
- inadequate analysis before rules and regulations are introduced; and
- poor interaction with other regulatory regimes.

Multiple or conflicting objectives

District Plans cover a range of issues and include a number of policies and rules. In part, as Hamilton City Council argued, this reflects the requirements of the RMA (sub. DR114, p. 7). However, in some cases, the policies and rules in District Plans can conflict. Conflicting objectives were particularly prominent in commentary on the PAUP and the proposed Christchurch Replacement District Plan (CRDP).

- MBIE and the Property Council highlighted the tension within the PAUP between the Plan's objectives of encouraging the provision of lower-cost housing and its requirements for new developments with more than five dwellings to achieve "a minimum 6-star level from the New Zealand Green Building Council Homestar Tool (2013), or certification under the Living Building Challenge (2013)" (MBIE, 2014c, pp. 13–19; Property Council, sub. 33, pp. 1–2). A similar requirement exists in the CRDP (Property Council, sub. 33, p. 9).
- The combination of zoning rules and "overlays" (which apply specific rules across all or a number of zones, such as controls on modifying or demolishing heritage buildings) significantly reduces the opportunities for new housing in the Auckland region. This runs against the PAUP's objective of providing sufficient land and development capacity (Property Council, Annex 1 to sub. 33, p. 29; Boffa Miskell / Cranleigh, n.d.). The complex interaction of rules and overlays also creates inconsistent controls and increase costs (Vector, sub. 11, pp. 2–3). The Canterbury Earthquake Recovery Authority (CERA)'s submission on the CRDP similarly commented:

> The detailed rules and development controls do not give effect to the objectives [of increasing housing supply]. It appears likely that the proposals will fall short of delivering the level of capacity that will be needed in Christchurch to provide for housing needs and to support the vision from the CCRP [Christchurch Central Recovery Plan] for central Christchurch to become the thriving heart of an international city. (CERA, 2014, p. 15)

The cumulative effect of multiple rules can also lead to disconnects between the stated objectives of a District Plan and its actual impacts on development capacity:

> While most RMA plans endorse some degree of residential intensification, many plans contain provisions that can act as disincentives to achieving this aim. These include provisions such as requiring a minimum area of land per dwelling (irrespective of dwelling size), open space requirements per dwelling, car parking rules and restrictions on converting existing houses into flats. (New Zealand Transport Agency, sub. 73, p. 12)

> The proposed Christchurch District Replacement Plan is very large and complex. There is a clear disconnect between the Plan's objectives (broadly stated), which encourage development, and the many and varied detailed requirements which have to be worked through to establish the status of an activity and determine whether a consent is required. (Foodstuffs, sub. 50, p. 4)

F5.18 Multiple and conflicting objectives in RMA plans reduce the ability of those plans to enable the provision of sufficient land and development capacity.

Inadequate analysis before rules and regulations are introduced

The quality of underpinning analysis for new land use regulation by councils can be variable. The Commission explored this issue in its *Towards better local regulation* inquiry and sought an independent assessment of nine zoning decisions by councils. The results were that:

- only three decisions had "complete and convincing" analysis of the options; a further three had "partially complete and convincing", and the remaining four had "incomplete or unconvincing"; and
- five of the nine decisions had "incomplete or unconvincing" or "partially complete and convincing" implementation and monitoring advice (NZPC, 2013, pp. 261–62).

More broadly, the Commission found that local government regulation in general could be improved by "more specific tailoring of regulatory objectives to local conditions, better options analysis and better implementation analysis" (NZPC, 2013, pp. 156–57).

Recent examples further illustrate the point. MBIE's submission on the PAUP highlighted flaws in the analysis underpinning the proposed Homestar certification requirements. MBIE concluded that the assumed benefits to homeowners were overstated, and that

- the cost-benefit analysis underlying the introduction of these provisions is questionable, such that the increase in threshold costs to purchase a new home for first home buyers is not substantiated by the medium-term payback
- the benefit in reducing costs to society of infrastructure development is not substantiated, and is problematic given the targeting of the provisions to only certain developments. (MBIE, 2014c, pp. 13–14)

Similar points were raised by the Property Council New Zealand in its submission on the PAUP. It also noted the lack of consideration of voluntary or incentive-based approaches to encourage greater environmental sustainability (Annex 1 to sub. 33, pp. 12-14).

In some circumstances, underpinning analysis is missing entirely. This appears to particularly be the case with design guides, which are used in many District Plans to encourage particular forms of development. A review by the Registered Master Builders and Construction Strategy Group on the impacts of building regulation on housing affordability concluded that the

> quality of the Section 32 analysis varies widely … and is often absent….Although Section 32 mandates an environmental, economic, social and cultural cost-benefit analysis of proposed District Plan changes, there appears to be no explicit evaluation of these impacts in Design Guides. (2015, p. 8)

The Property Council New Zealand suggested that a key weakness in much local authority regulation was a lack of understanding of the commercial impacts of requirements and decisions:

> In practice, many council officials do not take into account the needs of developers and implications on commercial feasibility when taking decisions and imposing requirements. In this respect, we are not advocating that development feasibility is the only factor that is relevant – rather that it is a key relevant matter for consideration, which is currently largely ignored or misunderstood by council officers. This leads to disproportionate and often conflicting requirements being placed on developers and has significant implications for the commercial viability of development and housing supply. (sub. 33, p. 1)

The outcome of insufficient consideration of commercial impact is often impracticable or inflexible rules:

> An example of inappropriate use of design guidelines is a development in Snell's Beach (Auckland) where the million dollar view was to the water but Council rules required the main living area to face the street (CPTED) [Crime Prevention through Environmental Design] – the rules did not fit the site. (Western Bay of Plenty District Council, sub. 36, p. 4)
>
> An example of a rule lacking practical implementation ability is the requirement, in the Wairakei residential zone, for garages to be located behind the line of the primary building frontage. Most current home building designs do not meet the requirements of this rule, as they place the garage in front of the primary building frontage of the site. (Property Council New Zealand, Annex 9 to sub. 33, p. 4)

F5.19 Inadequate underpinning analysis for District Plan rules and provisions is a key source of unnecessary regulatory costs for developers.

Poor interaction with other regulatory regimes

A number of current or proposed District Plans impose controls on the internal design or construction of buildings. In some cases, these controls appear to exceed the standards set by the Building Act 2004. Recent examples include the proposals in the PAUP and CRDP to introduce Homestar or other environmental certification requirements on new dwellings. Such overlaps between regulatory regimes create uncertainty for developers. More importantly, recent court cases suggest that District Plan provisions which exceed the Building Act 2004 may be unlawful (Box 5.2).

Box 5.2 **University of Canterbury v The Insurance Council of New Zealand**

University of Canterbury v The Insurance Council of New Zealand (2014) concerned the extent to which the Christchurch City Council (CCC) was entitled, under the Building Act 2004, to require the strengthening of earthquake-prone buildings (being a building below the 34% threshold for seismic strengthening in the building code, or any new building standard).

CCC had changed its policy regarding earthquake-prone buildings in 2010, following the September earthquakes. The new policy provided that 67% of the new building standard was the preferred level of seismic strengthening when repairing or reinstating damaged buildings. The Insurance Council of New Zealand applied for judicial review of aspects of the CCC's policy, and the University of Canterbury and Oxford Body Corporate were added as parties.

The High Court, Court of Appeal, and Canterbury Earthquakes Royal Commission each found that a council is not entitled to require an earthquake-prone building to be strengthened greater than 34% of the new building standard. The Supreme Court dismissed an appeal from the University against these legal judgments.

In reviewing the decisions of the lower courts, the Supreme Court touched on the issue of the division of responsibility between central government and local government. It observed that the Building Act 2004 gives a limited role to territorial authorities to set standards under the Act. In particular:

- section 17 requires that all building work must comply with the building code to the extent required by the Act;
- section 18 provides that a person carrying out building work is not required to achieve performance criteria additional to or more demanding than those in the building code; and
- section 49 provides that a building code must be granted if the plans and specification are such that the building work complies with the building code.

The Supreme Court considered that this allocation of powers between central government and local government was relevant to the interpretation of a territorial authority's powers to require work on earthquake-prone buildings. It said that Parliament adopted the 34% of new building standard benchmark as the standard at which a building is considered sufficiently safe to take it outside the scope of the power given to territorial authorities to require such strengthening work.

Based on the Supreme Court decision, it would seem that territorial authorities probably do not have the power to impose requirements that are more stringent than those provided for in the Building Code, unless the Building Act 2004 or Code has an explicit provision to the contrary. This is likely to include requirements for energy efficiency or environmental standards (such as Homestar) that are more stringent than the Building Code's standards.

MBIE has similarly raised concerns about proposals in the PAUP to set building rules that exceed those in the Building Act 2004, describing them as "legally problematic…potentially ultra vires and open to challenge" (2014c, pp. 13 and 15). Given the apparently shaky legal foundations for such provisions, local authorities should review controls on the design and construction of buildings or dwellings in their District Plans that exceed standards set under the Building Act 2004, with a view to removing them.

Some submitters argued in response to the draft report that the Building Act 2004 failed to sufficiently recognise local circumstances or was too broad in its application. For example, Christchurch City Council said that

> [t]he Building Code is too broad in its zone categories (the South Island is a blanket R3 category and doesn't allow for local intervention). (sub. DR128, p. 6)

Tasman District Council commented that

> [d]istrict plans have forever used standards that are presumably to deal with the effects of development on people, on adjoining land uses, or for some other environmental reason. One example we have been under pressure to consider, for instance, is requiring on-site capture of stormwater which would exceed Section G12 of the Building Code. (sub. DR96, p. 4)

MBIE currently has a rolling programme of reviews to the Building Code under way. If current Building Code provisions do not suitably reflect local conditions, local authorities should work with MBIE to find solutions.

F5.20 District Plan provisions which impose controls on the internal design and construction of buildings that are more stringent than standards set under the Building Act 2004 may be unlawful.

R5.13 Councils should review District Plan controls on the internal design and construction of buildings or dwellings that exceed standards set under the Building Act 2004, with a view to removing them.

5.6 Moving forward

Better tools to assess development capacity

A challenge for many cities, both in New Zealand and overseas, is determining how much development capacity is available under current or proposed plans. Local authorities and developers often disagree over the difference between the 'theoretical' capacity provided by a District Plan and the 'actual' or 'economic' capacity (ie, the number of dwellings that are likely to actually be built). Such a debate has recently taken place over the PAUP, with the Property Council New Zealand arguing that Auckland "could end up around 130 000 dwellings short of short of the targeted 280,000 dwellings which the Auckland Plan envisaged being developed inside the rural urban boundary" (Annex 1 to sub. 33, p. 7). The difference between the Property Council's assessment of development capacity and Auckland Council's estimates was due to the high cost of constructing apartments, topographical challenges, the likelihood that some property owners will choose not to develop their land to the maximum potential, and misclassification of some sites as vacant. As a result of this analysis, the Property Council argued that "Auckland Council needs to up-zone at least 250–400% of the theoretical capacity for every neighbourhood, to achieve the target intensification dwelling numbers" (Annex 1 to sub. 33, p. 7).

Other submitters pointed to difficulties that local authorities face in assessing development capacity. QLDC, for example, noted that revisions to its Dwelling Capacity Model in 2014 reduced the expected capacity of the city's urban areas. According to the council, the

> lack of sophistication in the model has meant that for a number of years dwelling capacity has been significantly overstated. As a result planning decisions around density may not have been as enabling as they should have been – adding to the housing demand / supply imbalance. (sub. 56, p. 2)

New South Wales provides an example of how to develop more commercially viable land-use rules. A similar tool could be useful for New Zealand local authorities. To deliver on Sydney's new metropolitan plan (which intends to accommodate 70% of population growth within existing urban areas), the NSW Department of Planning and Environment (NSWDPE) developed an Urban Feasibility Model (UFM), in consultation with a number of independent bodies and industry partners. The UFM calculates both housing potential (ie, the number of additional homes that could be built under a particular local authority plan) and development feasibility – ie, "how likely it is that the market will deliver these homes" (NSWDPE, n.d., p. 1).

- *Housing potential* is measured by taking into account the controls used in the relevant plan:

  > This includes land use zoning, floor space ratio, building height limit, minimum lot size and frontage, building setbacks, communal and private open space, landscaping and car parking requirements. The

> UFM also considers development constraints including heritage items, schools, existing strata plan and community title, environmental constraints and committed community uses. (NSWDPE, n.d., p. 1)

- *Development feasibility* is measured by incorporating

> a range of development costs and revenues associated with developing the housing potential of each site. This includes site acquisition, construction costs, approval and construction timeframes, government fees and charges, holding costs, finance costs, sales and marketing costs, development margins and sales prices of new product. Development costs and revenues vary depending on building type, size and height, site location and tier of developers operating in the market. The UFM uses a range of key performance indicators including Internal Rate of Return (IRR) and profit on cost to determine whether a site is feasible to develop or not. (NSWDPE, n.d., p. 1)

Tools like the UFM allow planning documents and controls to be tested for their impact on actual development capacity. It also provides a common methodology that developers, officials and local authorities can use to consider different planning options, rather than resorting to 'competing consultants'. The NSWDPE is currently using the UFM to test how well local authority plans provide for economically feasible development and to indicate how specific changes to planning controls could increase development levels (Box 5.3).

Box 5.3 **Applying the Urban Feasibility Model to the Illawarra region**

The UFM was used to assess the differences between the potential numbers of dwellings permitted under planning controls in the New South Wales region of Illawarra. The assessment indicated that

> there is a significant zoned capacity for new housing in existing urban areas across the Illawarra under current planning controls – almost 215,000 potential new dwellings. The UFM also reveals, however, that the realistic and feasible capacity is a much smaller 24,100 dwellings…
>
> Changes to planning controls were tested to see if this would increase the level of feasible development. The UFM showed that there are some changes to planning controls that will increase the supply of feasible development in certain areas, for example, lot width controls in Wollongong, and height and density controls in Kiama, however, changes to planning controls in most other areas are unlikely to make housing more feasible, given the mismatch between what people are prepared to pay for that form of housing and the costs of development.

Development type	No. of dwellings Ilawarra plan estimated were enabled	No. of dwellings UFM assessed would be feasible	Feasible as % of Illawarra plan estimates
Single-dwelling Housing	9 500	5 600	59%
Multi-dwelling Housing	145 000	12 200	8%
Apartments	60 500	6 300	10%
Total	215 000	24 100	11%

Source: NSWDPE, n.d.

A number of existing processes and models could helpfully contribute to the development of a UFM, such as the Development Capacity Modelling prepared under the aegis of the Auckland Unitary Plan Independent Hearings Panel (Auckland Council, sub. DR135, p. 15). Other local authorities indicated a desire to be included in development of a UFM.

F5.21 The New South Wales Urban Feasibility Model is a leading practice tool that can be used to develop and test commercially viable land-use rules, especially for infill and brownfield development.

R5.14 The Ministry for the Environment, in partnership with urban councils, should explore the potential to develop an Urban Feasibility Model that New Zealand councils can use to develop and test suitable planning controls.

More and better cost–benefit analysis

Developing proportionate and well-targeted regulation is challenging for all levels of government, as the Commission found in its inquiry into central government *Regulatory institutions and practices* (NZPC, 2014). Even so, as noted above, considerable scope exists to remove unduly costly regulation and raise the quality of underpinning analysis. One example of a leading practice is the steps Auckland Council has taken over the past few years to commission more detailed CBA (Box 5.4).

Box 5.4 **Leading practice: Auckland Council and cost–benefit analysis**

In recent years, Auckland Council has been commissioning cost-benefit studies to assess the impacts of particular land use rules. Studies completed to date cover the economic impacts of minimum parking requirements in Auckland (MRCagney, 2012 and 2013) and of minimum apartment sizes and balcony requirements (MRCagney, 2014).

While Council has not always accepted the policy recommendations in such studies, the studies provide good examples of the depth and rigour of analysis that should accompany the introduction of new rules and which is expected following recent amendments to section 32 of the RMA.

F5.22 Auckland Council's commissioning of detailed cost-benefit studies for particular land use rules is a good example of the depth and rigour of analysis that should accompany the introduction of new rules. Their findings should be better taken into account in council decisions.

R5.15 Councils should make more use of cost–benefit analysis in assessing the merits of proposed new land use regulations.

A number of submitters expressed reservations about the Commission's recommendations in the draft report that specific land use regulations should be removed and that greater CBA be undertaken, on the grounds that councils need to be able to respond to the desires of local communities:

> While, on one level, we accept that …the absence of demonstrable benefit is certainly a good reason to reconsider the (costly) requirement … planners, Councils, communities themselves are enmeshed in complex local dynamics and must consider a range of other considerations too (Bay of Plenty Regional Council, sub. DR89, p. 5)

> TCC agrees there is a need for robust cost benefit analysis before introducing building height limits. In fast growing cities, urban density is a valid response to growth pressures, especially where there is infrastructure capacity able to support additional intensification. TCC notes however that local communities are usually very vocal about relaxing height and density provisions, therefore these provisions need to be considered along with other alternatives and taken to the community for consideration. (TCC, sub. DR102, p. 18)

> It should be up to the local authority to make the decision as to what is appropriate in its area. (Hamilton City Council, sub. DR114, p. 6)
>
> Overall, the council opposes limitations on local government's ability to tailor planning rules to local issues. (Auckland Council, sub. DR135, p. 21)

The New Zealand Council for Infrastructure Development (NZCID) posed more fundamental questions:

> While we support the extension of cost-benefit analysis to planning decisions (R.5.4), we consider the Commission must clarify its position with respect to local decision making. There remains a degree of conflict between the LGA's requirement for local decision making and the RMA's Section 13 requirements for evidence based decisions.
>
> Is the purpose of local planning to represent local desires for local communities, or is it to objectively assess the lowest cost/greatest net public benefit and, where required, "over-rule" local preferences?
>
> There is evidently some conflict between what communities want (often, for example, more restrictive building controls) and what is most efficient from a national or regional economic perspective.
>
> What is the process to value and understand whether a local community values, for example, more restrictive building heights above and beyond higher transport, water and property costs? What if those communities are prepared to pay for the costs their additional amenity places on wider society?
>
> This is, perhaps, the most essential planning issue sitting at the core of urban development and is not well articulated in the Report.
>
> Given that the purpose of planning and government in general is to maximise well-being or "utility", we can see no reason why a community prepared to meet the additional costs of its decisions (for example, by forcing growth into more difficult to service areas) should be required to accept planning decisions it overwhelmingly does not support. (sub. DR132, p. 9)

In terms of the choice between the local and public interest posed by NZCID, the Commission comes down squarely in favour of the latter. It is seldom the case that "a community prepared to meet the additional costs of its decisions (for example, by forcing growth into more difficult-to-service areas)" actually pays these costs. The costs are more often than not transferred to others, in the form of higher land and house prices, fiscal costs to central government or other economic and social costs (Chapter 3). Even if communities were willing to pay, the analysis and evaluation carried out under section 32 is generally not robust enough to identify all the costs, winners and losers.

The objections raised above demonstrate the considerable influence that vocal and politically-active members of the community can have on council decision-making. It is this influence that drives the 'democratic deficit' described in Chapter 3. In reality, there is no conflict between "local government's ability to tailor planning rules to local issues" or "local decision-making" and a greater use of CBA. Indeed, when done well, CBA allows councils to make better decisions, and makes it easier for local authorities to engage with communities about the merits of specific proposals, by clearly spelling out the benefits and costs of different options.

The Commission believes that wider and better use of CBA is necessary to reinforce the public interest in local authority land use regulation and to provide greater discipline in its production. In particular, thorough CBA provides a check against the tendency for specific groups to lobby for regulations that advance their interests at the cost of the wider community. It evaluates the total impact of particular regulatory options, accounting for all the effects on the community and economy, not just the immediate or direct effects or other selected factors (Australian Department of Prime Minister and Cabinet, 2014, p. 1). CBA can also be used to identify the impacts of proposals on particular groups, and so inform "value judgments by decision makers about whether a response to distributional (or equity) issues should be made", such as compensation (APC, 2014b, p. 94).

CBA promotes greater transparency, accountability and learning. The use of consistent monetary values enables comparability between regulatory proposals, and the assumptions made can be tested against market valuations. In addition, by laying out the estimated impacts, costs, benefits and underlying assumptions, CBA can be subsequently tested against actual results. Finally, repeated use of CBA generates lessons and data that can be used to refine later analyses (Ergas, 2009).

Better guidance from central government

Given that the section 32 requirements to prepare evaluation reports prior to the introduction of new rules or policies have been in place since the introduction of the RMA in 1991, the Commission was surprised by the often poor quality of regulatory analysis in many evaluation reports. This raises the question of what might be causing this poor performance.

One explanation is that the law has not been sufficiently tightly worded to encourage quality analysis. This appears to be the view of the government, which introduced amendments to the RMA in 2013 to require greater quantification and consideration of economic and employment costs and benefits (Box 5.5).

Box 5.5 **Recent changes to section 32**

The Resource Management Amendment Act 2013 set out new requirements for preparing and publishing evaluation reports.

- **Benefits and costs of effects:** Section 32 now specifies that the assessment of the benefits and costs relates specifically to environmental, economic, social and cultural effects anticipated from the implementation of the provisions.
- **Economic growth and employment opportunities:** As part of the assessment of benefits and costs, the section now requires an assessment of the opportunities for providing or reducing economic growth and employment.
- **Quantification:** Benefits and costs are now required to be quantified, where practicable. This seeks to ensure decision-makers have the best information on which to make decisions.

Other changes in the Amendment Act require "that evaluations must contain a level of detail that corresponds to the scale and significance of the effects anticipated by the proposal. This ensures the detail in the evaluation reports is tailored to the likely effects anticipated from implementing the proposal".

Source: MfE, 2013a.

Another possible explanation for poor quality regulatory analysis is capacity and capability gaps in councils:

> A key failure of recent changes to s32 of the RMA was a lack of consideration of the capability of local councils to carry out more sophisticated cost-benefit analysis, including the ability to quantify social and environmental effects. (Allison Tindale, sub. DR84, p. 4)

The Commission has previously considered the regulatory performance of local authorities and noted that capability and capacity gaps were a constraint (NZPC, 2012a). Recruitment of planning regulatory staff was a particular challenge, with 60% of councils reporting to the Commission that planning, land use and water consents vacancies were typically the hardest to fill. The Commission highlighted a number of steps in the *Towards better local regulation* report which could be taken to raise capability, including better training, better consultation with local authorities before they are given new regulatory responsibilities, and better guidance. Central government has scope to assist local governments in conducting better CBA of proposed land use rules, through the delivery of training and the provision of templates and technical guides.[35]

At the very least, central government should improve the quality of its current planning guidance, which sets a poor precedent for the sorts of analysis that is now expected of local authorities. Key examples include:

- the *New Zealand Urban Design Protocol* (MfE, 2005), which most local authorities reference in their District Plans, and adherence to which is a criterion to be considered in deciding whether to approve resource consent applications under the Housing Accords and the Special Housing Areas Act 2013 (s. 34 (1)(e)); and

[35] The Commission found in its local government regulatory inquiry that regulatory "decisions made by local government would benefit from the use of templates that ensure that the key components of the analysis underpinning the regulatory decision, and information used in making decisions, is set out in a standardised format" (NZPC, 2013, p. 157).

- the Ministry of Justice publication *National Guidelines for Crime Prevention through Environmental Design in New Zealand* (2005), which recognises that crime occurs for many reasons and cannot be prevented by well-designed places alone, but argues that proper design and effective use of the built environment can help to reduce criminal opportunity and foster positive social interaction among "legitimate" users of space.

The *Protocol* claims that good design is value for money because it creates "productive, robust and attractive environments" and that "research has found no evidence that quality urban design necessarily increases development costs" (p. 8). Similarly, the *National Guidelines* assert a large number of benefits from "Crime Prevention through Environmental Design", but make little reference to any associated costs (indeed, the word 'cost' is only mentioned twice in the document). But planning based on urban design principles does create costs, as this chapter and other reports have laid out. The aim should be to robustly assess both costs and benefits, and ensure that the latter outweighs the former.

F5.23 Central government's existing policies and guidance on planning fail to meet the level of analysis now expected of local authorities.

R5.16 Central government should assist councils in conducting better cost–benefit analysis of proposed land use rules, through arranging training and providing templates and technical guides.

R5.17 The Government should replace its existing guidance on planning with material that more clearly demonstrates and showcases high-quality cost–benefit analysis. Key documents that should be replaced include:

- the *New Zealand Urban Design Protocol*, and
- *National Guidelines for Crime Prevention through Environmental Design in New Zealand*.

5.7 Conclusion

Land use regulations create both benefits and costs. When they are designed well, they can improve the functioning of cities by managing externalities (such as overshadowing), ensuring a sufficient supply of quasi-public goods (eg, parks, recreation facilities) and reducing transaction costs by laying out clear requirements for the use of land and avoiding the need for multiple contractual negotiations between individuals. However, evidence collected through this inquiry indicates that a number of land use regulations in New Zealand's high-growth areas are imposing undue costs, limiting the ability of cities to accommodate population growth, constraining consumer choice and driving up land and house prices. Such rules unnecessarily limit the ability of cities to move out or build up.

Although some of these regulations (such as covenants) are private in origin, the majority are developed and enforced by local authorities. To ensure that their regulations provide a net benefit to their communities, local authorities need to improve the quality and rigour of their underlying analysis before introducing new rules, and avoid unhelpful overlaps between District Plan rules and national regulatory systems such as the Building Act 2004. Central government can help to promote better land use regulation by providing technical assistance to local authorities in conducting CBA and assessing the actual, economically viable development capacity created by District Plan rules and provisions.

6 Rezoning and approvals processes

Key points

- The ability to promptly rezone land plays an important part in increasing land supplies, by bringing new land to market and increasing the development capacity of existing urban land.
- A plan change is the mechanism used to rezone land for different uses. Councils in high-growth cities take longer on average to make plan changes operative than other local authorities. However, data do not support claims that plan changes typically take many years to complete. Longer timeframes for plan changes in high-growth areas likely reflect the fact that cities have more people and therefore more, and more complex, interests to manage.
- Where rezoning proposals are specific to a particular site, councils should be given more flexibility to only notify directly affected parties.
- Leading practices include engagement with affected parties on proposed plan changes ahead of their notification and the use of broad zones that enable a wide range of activities. This may help reduce the incidence of appeals. The current consultation process requirements in the Resource Management Act 1991 (RMA) should be reviewed to ensure they are not unduly impeding more innovative engagement processes.
- A number of submitters argued that access to appeals on plan changes should be limited. While limiting access to appeals could speed up rezoning, any reductions in timeframes may not be large and would need to be weighed against the loss of an institutional check on local authority regulation-making. The Commission was not persuaded by arguments that removing or significantly limiting the access to appeals would improve the quality of District Plans or land use regulations.
- The time it takes to gain an approval for development matters for housing affordability. Uncertainty about council obligations and problems coordinating between different units within councils create costs and delays for developers.
- Processes to improve internal council coordination (eg, "one-stop shops") and greater use of electronic planning tools help to reduce these delays. Scope also exists for greater liberalisation within the planning system, and local authorities should look for opportunities to move more residential land-use activities into either "permitted" or "restricted discretionary" status.

6.1 Introduction

The stringency of land use rules is not the only barrier to the ability of cities to accommodate growth and encourage affordable housing. Two other aspects in particular are important – the ease with which land can be rezoned for residential or higher-density purposes, and the speed with which a property owner or developer can gain approval to build new housing. This chapter explores barriers to the prompt rezoning of land and approval for developments.

6.2 Rezoning

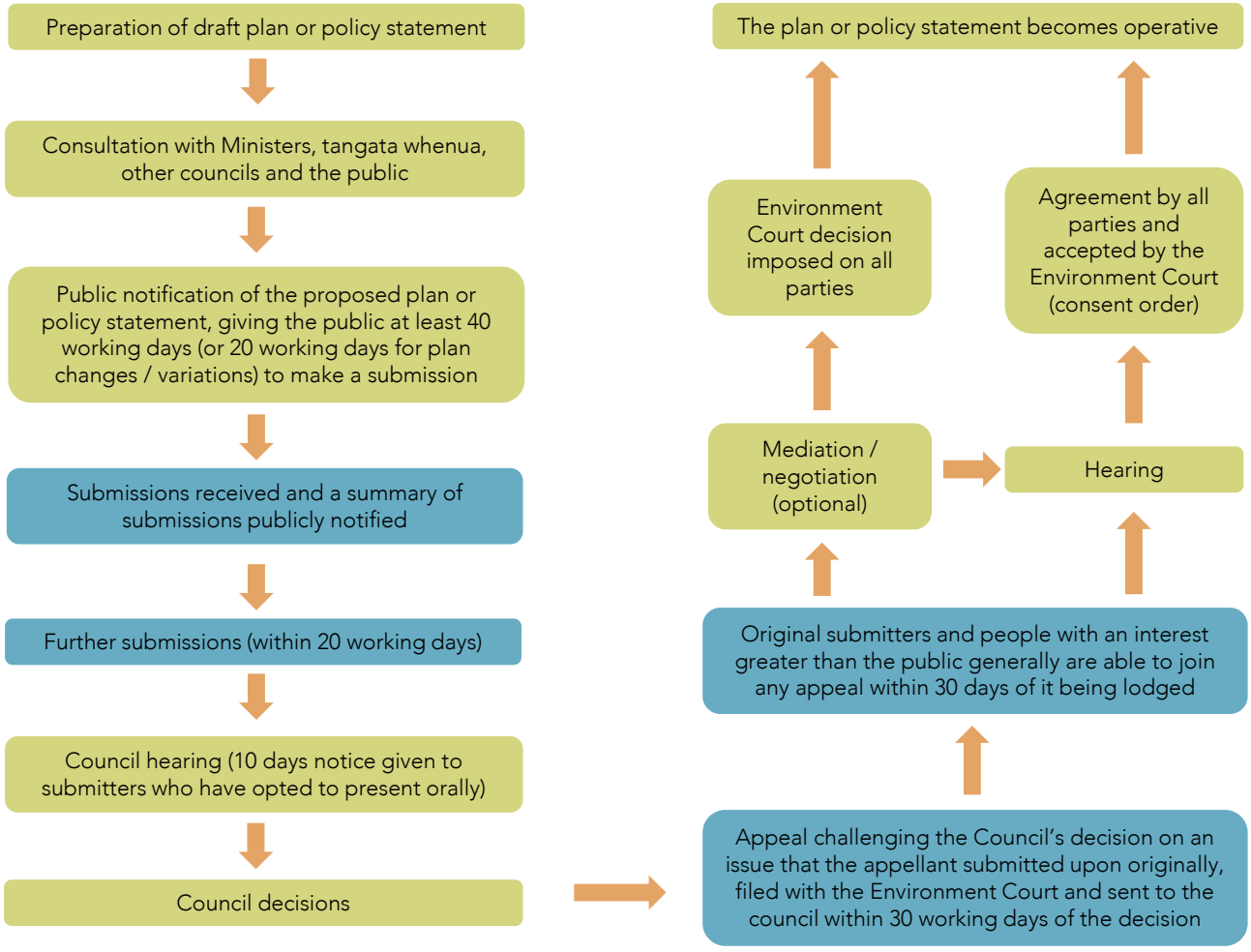
The ability to promptly rezone land plays an important part in increasing land supplies, by bringing new land to market generally (by converting rural land to residential or industrial use) and increasing the development capacity of existing urban land (eg, by increasing height limits or reducing minimum lot sizes). This section discusses how rezoning occurs in New Zealand, looks at the factors that affect the speed with which rezoning can take place, and explores options for reform. The key challenge for reform options is to strike the right

balance between the goals of speeding up planning processes and ensuring that the regulatory processes provide quality outcomes.

How rezoning occurs in New Zealand

Rezoning in New Zealand is carried out through changes to District Plans. Existing District Plans can be changed either at the instigation of local authorities, or at the request of private individuals and organisations.[36] Local authorities wishing to develop new RMA plans, or make changes to existing plans, must follow the consultation requirements laid down in Schedule 1 of the RMA (Figure 6.1). The darker sections in Figure 6.1 are the focus of discussion in the following sections.

Figure 6.1 Stylised presentation of Schedule 1 process for preparing a new Plan or Plan change



Source: Adapted from Royal Forest and Bird Protection Society of New Zealand, 2005.

Plan changes requested by private individuals and groups must follow the process requirements set down in Part 2 of the RMA's Schedule 1. In brief, local authorities must make a decision on any private request for a plan change. Councils may accept the request in whole or in part and work with the applicant to prepare a plan change, may adopt the request themselves, or may reject the request in whole or in part. Where the request is accepted or adopted, the proposal is then publicly notified and submissions are sought, as shown in Figure 6.1.

Local authorities may only reject a request for a plan change, where:

- the proposal is frivolous or vexatious;
- the issue has been considered and rejected in the past two years;

[36] Changes can also be made to proposed RMA plans. These are known as 'plan variations'. This chapter does not deal with plan variations.

- the substance of the change had already been given effect to;
- the requested change would make the plan incompatible with higher-level plans (eg, Regional Policy Statements);
- the requested change would be incompatible with sustainable management; or
- the plan has been operative for less than 2 years.

Private plan changes can be requested for District and Regional Plans, but not for Regional Policy Statements or national RMA instruments (eg, National Policy Statements or National Environment Standards).

Access to appeals exists for local authority-led and private plan changes.

- Submitters on a proposed plan or change may appeal a local authority's decision to the Environment Court, if the matter in question was raised in their submission and the appeal does not seek the withdrawal of the plan or policy statement as a whole (Schedule 1, clause 14).
- A person who seeks a private plan change may appeal to the Environment Court on elements of the local authority's decision – in particular, if the local authority rejects the plan change request in whole or in part (Schedule 1, clause 27).
- Parties to proceedings before the Environment Court may appeal to the High Court on questions of law (section 299).

Comments from submitters

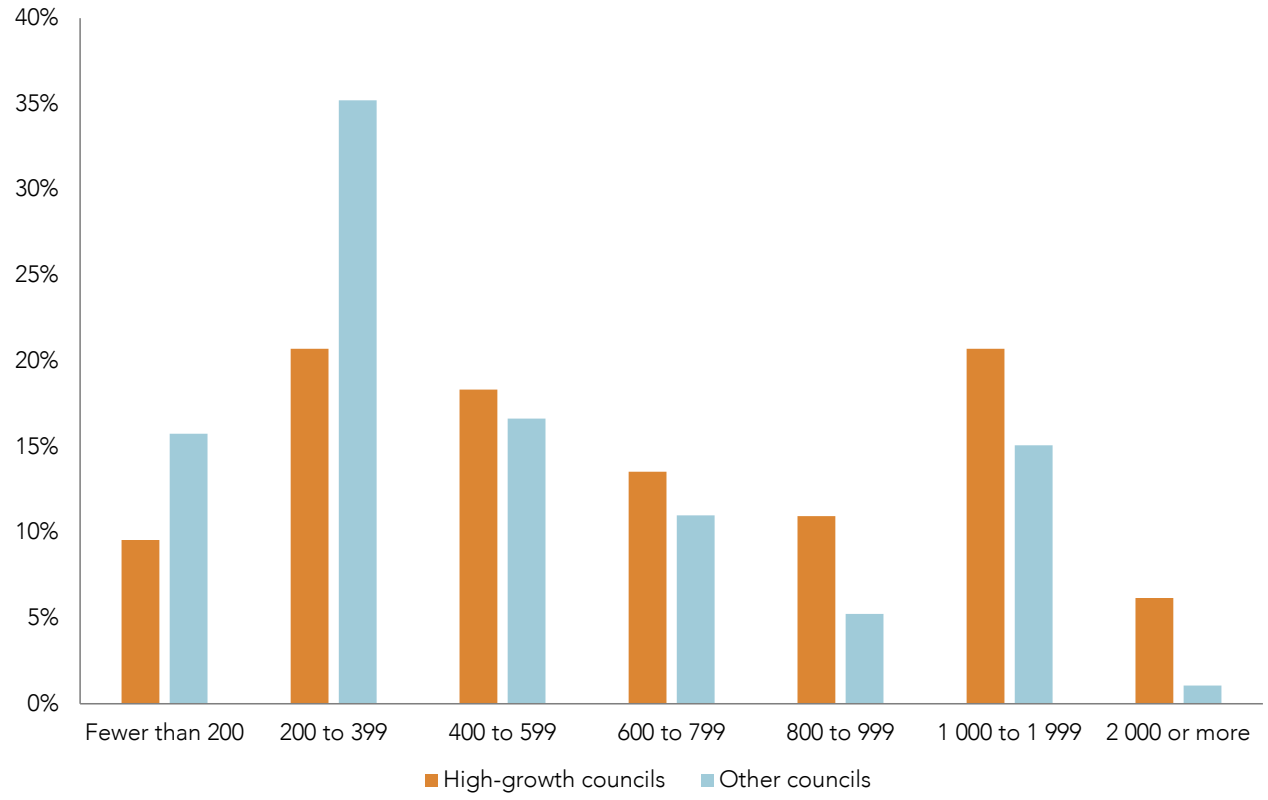
The statutory consultation obligations and appeal rights were identified by submitters as key causes of delay and cost (these sections are shaded blue in Figure 6.1):

> The time it takes for decisions to be made through the Schedule 1 process adds to costs. (Waikato District Council, sub. 12, p. 7)
>
> Changes to the Schedule 1 process under the RMA would assist to shorten the timeframes for delivery of "shovel ready" land for housing…. Litigation is, in our experience, one of the main factors slowing the release of land in a more timely fashion. (Bay of Plenty Regional Council, sub. 46, pp. 5–6)
>
> The processes required to re-zone land are costly to councils and ratepayers because of the requirements in the RMA. (Hamilton City Council, sub. 70, p. 11)
>
> The current plan-making process under Schedule 1 of the RMA can be inflexible and is a primary cause of significant costs and delays. There are opportunities to speed up the plan-making process and reduce costs, while continuing to enable a high degree of public participation. (Auckland Council, sub. 71, p. 16)

High-growth councils take longer to make plan changes operative….

Data on plan changes are limited and incomplete. For example, little information exists on the relative complexity or size of plan changes undertaken by the different types of councils. Nor is it possible to clearly distinguish plan changes for the rezoning of land from plan changes aimed at achieving other purposes. However, the available data on operative plan changes indicate that the councils that are the focus of this inquiry take longer on average than other local authorities to complete plan changes. Of the District Plan changes completed by high-growth councils, 27% of changes took 1 000 calendar days or more to make operative, compared to only 16% of changes made by other councils. Similarly, just over half of all District Plan changes completed by other councils took fewer than 400 calendar days to make operative, compared to 31% in high-growth councils (Figure 6.2).

Figure 6.2 Distribution of operative District Plan changes, by calendar days taken to complete and type of territorial authority



Source: Productivity Commission analysis of Ministry for the Environment data.

Note:

1. Analysis undertaken on completed plan changes for which a 'date made operative' was available.
2. Data start from the point at which a proposed plan change is notified for public submission, and do not include the pre-notification period.
3. Dataset covers plan changes completed between 1994 and the end of 2014.

F6.1 High-growth councils take longer on average than other local authorities to make plan changes operative.

…but data do not support claims that plan changes typically take many years to complete

Some submitters claimed that rezoning typically takes multiple years to complete:

> Current timeframes for delivering new land supply through rezoning process under the RMA can take 5-10+ years. (Bay of Plenty Regional Council, sub. 46, p. 5)
>
> TCC's experience suggests that it takes between 4 and 10 years to rezone land under the Schedule 1 process in the RMA taking account of the preparatory work required before a Plan Change proposal is notified for submissions through to appeal outcomes and making operative. (Tauranga City Council, sub. 47, p. 4)
>
> In the case of the Resource Management Act, plans and plan changes can take up to seven years and sometimes longer to be approved. Plans may become operative in part, pending appeals to the Environment Court (and beyond). (Local Government New Zealand, sub. DR130, p. 3)

Larger and more complicated plan changes are likely to take longer to make operative, as there are more issues to resolve and interests to reconcile. It may be that the plan changes made by the Bay of Plenty Regional Council and Tauranga City Council have been more complex than plan changes made by councils in other areas.

However, Ministry for the Environment (MfE) data suggest that such timeframes are not common, even for high-growth areas. The median time to complete a plan change in high-growth councils was longer than for other local authorities, but only by 220 days or about half a year (Table 6.1). Overall, the median time taken by high-growth councils to make a plan change operative was slightly over a year and a half.

Table 6.1 Time taken to complete District Plan changes and make changes operative, by type of council

	High-growth councils	Other councils
Median time taken to complete a plan change (calendar days)	619	399
Median time elapsed between notification of proposed plan change and hearings opening	226	198
Median time elapsed between council decision and plan change made operative (calendar days)	245	110
% of total time on gap between council decision and plan change made operative	40%	28%

Source: Productivity Commission analysis of MfE data.

Note:

1. Analysis undertaken on completed plan changes for which a 'date made operative' was available. Data start from the point at which a proposed plan change is notified for public submission. Dataset covers plan changes completed between 1994 and the end of 2014.

F6.2 Available evidence does not support the proposition that plan changes typically take many years for cities to complete. Even for high-growth councils, the median time taken to complete a plan change was slightly over a year and a half.

Appeals and associated court processes (eg, mediation) appear to partly account for the longer average time it took to complete District Plan changes in the councils that are the focus of this inquiry. Proportionately more time (40%) elapsed between councils making a decision on a plan change and the change being made operative in high-growth councils than in other territorial authorities. This is the point at which appeals can be triggered.

F6.3 Appeals and associated processes appear to partly account for the longer average time it takes to complete plan changes in high-growth councils.

The figures in Table 6.1 and Figure 6.2 reflect plan changes made operative between 1994 and 2014 and probably overstate the average time taken to complete plan changes today. Earlier plan changes are likely to have suffered from the 'learning curve' effect, as the new resource management system bedded in and case law emerged.

In addition, in recent years, the Environment Court has taken a number of steps to expedite appeals, including increased training to its commissioners in mediation and other forms of alternative dispute resolution, conferencing of expert witnesses, the use of case management tracks and other procedural improvements (for more details, see Members of the Environment Court, 2014; and Newhook, 2013). Partly as a result of these steps, the vast majority of appeals are resolved before a hearing.[37] In addition, the reports of the Environment Court's Registrar note that the Court in recent years has had high clearance rates for appeals on plan changes and policy statements – 124% in 2012/13 and 234% in 2011/12 (Registrar of the Environment Court, 2012 & 2013).

[37] According to a 2012 speech by Judge Harland, 82% of cases settle before reaching a hearing.

Bigger cities have more interests and issues to manage

The fact that plan changes take longer to complete in faster-growing areas is not particularly surprising. Faster-growing areas tend to be larger cities, where more residents with interests may be affected and where more impacts on others (both positive and negative) must be managed. The Environment Court cited an example of these multiple and competing interests in Queenstown, where progress on resolving Plan Change 19 was hampered by

> the existence of 3 other related proceedings also before the Court, impacting on the Plan Change, including Queenstown Airport Corporation's own Notice of Requirement to extend the existing aerodrome designation, PC35 (concerning airport noise management and the management of urban growth to maintain the airport's operational capacity), integrated Notices of Requirement by the NZ Transport Agency and QLDC for work on State Highway 6 and proposed local roads within PC19's Structure Plan. These proceedings as a group are the product of a planning battle that has raged on the outskirts of Queenstown for a quarter of a century between the Queenstown Airport Corporation, 2 major commercial landowners, and QLDC itself. (Environment Court, sub. DR92, pp. 2–3)

In comparison, plan changes in rural and regional areas tend to have fewer challenges. Taupō District Council observed that the "reduced scale of urban areas and related infrastructure [in regional New Zealand] can enable a more streamlined approach compared to the complex nature of issues in centres like Auckland and Christchurch" (sub. DR93, pp. 1–2).

Fast growth also tends to involve rapid and large changes to existing communities and amenity, leading to resistance from existing residents. Even in jurisdictions where consultation or appeal rights are more circumscribed than in New Zealand, rezoning can take many months as the Australian Productivity Commission (APC) found in its 2011 review of planning, zoning and development assessments (Table 6.2).

Table 6.2 Elapsed time to complete land rezoning / amendments to planning schemes in major Australian cities (calendar months)

Sydney	Melbourne	Southeast Queensland	Adelaide	Perth	Darwin	Canberra
16–78	18	13–38	24–30	9–48	1–6	24

Source: APC, 2011a.

F6.4 The fact that plan changes take longer on average to complete in faster-growing areas is not surprising. Faster-growing areas tend to be larger cities, where more residents with interests may be affected and where more impacts on others must be managed.

6.3 Potential reforms to consultation obligations

Submitters proposed three changes to the Schedule 1 consultation obligations:

- restrict the ability to make further submissions on proposed plan changes;
- allow for limited notification of site-specific plan changes; and
- update statutory notification requirements.

Limiting further submissions

Schedule 1 of the RMA requires that local authorities seek submissions from the public on a notified plan change proposal, summarise and notify the decisions sought by submitters, and receive further submissions on matters raised in the summary. Some inquiry participants questioned the additional benefit provided by the further submissions stage, and recommended to remove or constrain the ability to make further submissions:

> [T]he plan change process in NZ could be improved by… [r]emoving or greatly restricting the use of further submissions. My experience is that further submissions rarely provide useful additional

> information, and are often trivial in nature. Use should be restricted to purely new issues – such as requests to extend plan changes areas to include additional land. (Allison Tindale, sub. 8, p. 11)
>
> Further submissions are important for parties to be able to protect their interest when something is raised in a submission that they were not aware of and would negatively affect them. However many further submissions are in support of original submissions. They generally add little value, add more parties to the process, can take up significant administration time, and add complexity to the whole process. Thus an option is to allow for further submissions in opposition only. (Western Bay of Plenty District Council, sub. 36, p. 2)
>
> Remove the further submissions process, while enabling hearings panels to invite comments from directly affected parties who have not submitted if necessary. (Auckland Council, sub. 71, p. 17)

However, in an earlier consideration of proposals to reform Schedule 1, Nolan et al. (2012a) highlighted the important role further submissions can play in bringing information to decision makers and ensuring affected parties can have their say:

> Further submissions are the very first opportunity that people have to comment on changes to a plan being sought by other people. These can include requests to rezone areas, to introduce new zones altogether, or to amend the provisions applying throughout a zone. Such submissions may directly impact the zoning of someone else's land, where the owner of that land was quite happy with the notified plan provisions. They may also directly impact on the use or enjoyment of your own land, by requesting that a new activity be encouraged in the vicinity. The further submission process is the only chance that people affected by, or otherwise interested in, original submissions have to let the council know what they think of those changes and is a vital step in order to create a document that reflects the wider community's aspirations. The further submission process also improves the odds of all issues being adequately covered and explored by all submitters, ie an issue raised by one submitter may have been overlooked by another submitter. (p. 7)

The common law principles of natural justice guide consultation and engagement on proposed regulation. The principles are designed to promote decisions that are informed and accurate, and which instil a sense of fairness (Joseph, 2014). In considering whether it is appropriate to limit further submissions on proposed plan changes, two principles are of particular relevance:

- parties should be given adequate notice and opportunity to be heard; and
- higher standards of natural justice are likely to apply where a decision may constrain the liberty and livelihood of an individual.

District Plan rules or provisions that restrict how landowners may use their property are a constraint on liberty. They might also adversely affect livelihood. For these reasons, it would undesirable to limit the ability of directly affected parties to make further submissions on proposed plan changes.

F6.5 Limiting the ability of directly affected parties to make further submissions on proposed plan changes would be undesirable.

The current provisions in the RMA enable a wider range of people and organisations to make further submissions on proposed plan changes than those directly affected by the changes. Although the ability to make a further submission was narrowed in 2009, clause 8 of Schedule 1 identifies the following people and organisations as being eligible:

> (a) any person representing a relevant aspect of the public interest, and
>
> (b) any person that has an interest in the proposed policy statement or plan that is greater than the interest that the general public has, and
>
> (c) the local authority itself.

In its draft report, the Commission commented that the current scope to make further submissions still appeared generous, and sought evidence on the impact of further narrowing eligibility. Most submitters who commented on the question saw little benefit in adding more legal restrictions on who could make a further submission. Tauranga City Council believed that it would not have "a significant impact on the speed and

efficiency of Plan Change processes" (sub. DR102, p. 14). Western Bay of Plenty District Council observed that specifying tighter eligibility criteria in legislation would be challenging and could end up excluding people with a direct interest in some plan changes:

> Imposing restrictions on further submissions would be fraught with difficulty – particularly in determining in which situations they should be restricted. The existing eligibility rules can be… effective in that they can be applied on a case by case basis – more prescriptive eligibility rules (for example, only allowing those directly affected, or immediate neighbours to make further submissions) would be impractical because some rules and regulations in plan changes are property-specific, while others, like noise controls, are generic across the whole city/district. (sub. DR104, p. 7)

Flexibility in notifying site-specific plan changes

Auckland Council proposed that plan changes specific to a particular site should be able to be "notified on a limited basis to directly affected parties only (similar to the current HASHA process)" (sub. 71, p. 17). The Housing Accords and Special Housing Areas Act 2013 (HASHA) states that for those plan changes and resource consent applications that apply to qualifying developments, only the following parties may be notified:

> (a) the owners of the land adjacent to the land subject to the application; and
>
> (b) the local authorities in whose district or region the land subject to the application falls; and
>
> (c) any infrastructure providers who have assets on, under, or over the land subject to the application or the land adjacent to that land; and
>
> (d) if the land subject to the application or land adjacent to that land is subject to a designation, the requiring authority that required the designation (section 29 (3)).

The amendments to the RMA in 2009 gave local authorities flexibility to consult only "affected persons" over some resource consent applications ("limited notification"). Where a resource consent was subject to "limited notification", only these affected persons could make submissions. Someone qualifies as an affected person if, in relation to the activity covered by the consent application, the "adverse effects on the person are minor or more than minor (but not less than minor)".[38]

This is a wider threshold than is applied in the HASHA Act. However, the 2009 RMA amendments did not apply to proposed plan changes. Schedule 1 imposes standardised consultation requirements, regardless of the scope of the proposed plan change, and obliges local authorities to receive submissions from any member of the public.

Some submitters opposed changing notification provisions for plan changes, arguing that such reforms would be anti-democratic. Allison Tindale said:

> I consider such an action contrary to the basic democratic principles that the RMA legislation is founded on. I believe the Commission needs to look very carefully at who is directly affected. I do not agree that only landowners and residents within or immediately adjacent a proposed site are the only directly affected parties. I strongly hold the view that local community groups and organisations (e.g. resident action groups, heritage groups and environmental groups) have a right to participate in decision making in the communities they care about. (sub. DR84, p. 3)

The New Zealand Planning Institute similarly believed that "[r]estricting the eligibility of submitters to comment on site specific plan changes would be a strong discouragement for community participation in local decision making" (sub. DR125, p. 1).

Others supported changing the notification requirements for site-specific plan changes, on the grounds that they would provide greater flexibility to local authorities and more appropriate consultation (subs. DR89, DR96, DR100, DR104, DR102, DR118).

The Commission considers that a case does exist for allowing for limited notification of proposed plan changes that are specific to particular sites. Such changes would help ensure that those affected by a plan change (eg, current landowners of the site, and immediate neighbours) have a right to be notified and

[38] Section 95E, Resource Management Act 1991.

heard, while opening up opportunities for faster and more efficient rezoning processes. The excessive cost of standardised and wide notification requirements for all proposed plan changes can be seen in a case study provided by Wellington City Council:

> Wellington City Council is currently considering a private plan change for rezoning a single parcel of land at 42a Riddiford Street Newtown. Whilst the potential effects of this rezoning are likely to be immediate to the area the RMA requires the Council to publically notify all plan changes regardless of their scope. The cost and time involved with this exercise disproportionately outweigh the expected benefits. Where only specific parties are considered to be affected by a resource consent application, the RMA allows for the notification process to be reduced in its scope to include only those parties. The RMA does not provide the same flexibility to reduce the scope of the notification process when considering a plan change. (sub. DR118, p. 6)

In the draft report, the Commission sought comment on how eligibility for notification and consultation for site-specific plan changes should be defined. In particular, the Commission questioned whether notification criteria for site-specific plan changes should be based on the 2009 RMA amendments or the HASHA Act provisions. Of those submitters who commented, most preferred the 2009 RMA amendments on the grounds that site-specific plan changes are likely to vary in scale and significance, and local authorities should therefore have some flexibility in deciding who to notify. By comparison, the HASHA Act provisions were seen as too prescriptive and potentially excluding some important parties. The Commission finds these arguments compelling.

F6.6 Giving councils greater flexibility over notifying site-specific plan change proposals could create opportunities for faster rezoning processes, while protecting the ability of those directly affected to be heard.

R6.1 The Government should introduce amendments to the RMA, allowing councils to only notify directly affected parties of proposed plan changes that are specific to particular sites. The amendments should mirror the 2009 amendments to section 95 of the RMA.

Updating statutory notification requirements

Auckland Council and Wellington City Council argued that the Schedule 1 public notification requirements had failed to keep up with changes in technology and communication:

> In the council's view, Schedule 1 does not prevent pre-notification consultation. It does, however, prescribe certain requirements like public notices in newspapers which are very costly (at least $5000 per application in the New Zealand Herald). Using public notices in a newspaper is an outdated way of communicating and the Schedule 1 requirements should be reviewed to see if the benefits outweigh the costs. (Auckland Council, sub. DR135, p. 19)

> The requirements of Schedule 1 are potentially out of step with emerging social media trends. This means Councils may be missing out on an opportunity to increase engagement in resource management processes. (Wellington City Council, sub. DR118, p. 17)

The Councils were referring to the requirement in the RMA that local authorities must give "public notice" of proposed changes to RMA plans, which is defined as follows:

> **public notice—**
>
> (a) means a notice published in a newspaper circulating in the entire area likely to be affected by the proposal to which the notice relates; and
>
> (b) if a local authority also publishes a notice on an Internet site to which the public have free access, includes that notice. (section 2(1))

The ability for local authorities to publish a public notice on the internet was introduced in 2009. According to the Regulatory Impact Statement prepared for the 2009 Resource Management Amendment Bill, the intention was to give local authorities more flexibility in meeting their consultation obligations and to lower their costs:

> *Enable internet and e-mail alternatives for service and notification of plan changes, variations and associated proceedings.* This option is likely to speed up the process and therefore reduce costs and delays. It is possible that some potential submitters may not have access to [the] internet and therefore could be disadvantaged, although this will be mitigated by continuing to allow notification by mail and print media. (MfE, 2009, p. 23)

However, the way in which the legislation has been drafted appears not to give local authorities a choice over whether they publish the public notice in a newspaper.

F6.7 Despite amendments to the RMA in 2009 which were intended to give local authorities more flexibility over how they notify a plan change or variation, councils are still obliged to publish notices in newspapers. This is unlikely to be the most effective way of communicating with parties affected by a plan change.

More broadly, there are questions about the prescriptive nature of Schedule 1. Waipa District Council argued that it limited their ability to innovate or be inclusive:

> In Waipa's view, the schedule 1 process does discourage innovative approaches to public engagement. This is because the schedule 1 process is already time consuming, cumbersome, expensive, and the potential for judicial review if councils deviate from the formal process is high. For example, currently submissions must be on a specific form (form 5). There is no opportunity for Council to receive feedback in other ways; as is able to occur through the Local Government Act (LGA) consultation processes. It is further noted that undertaking additional inclusive / innovative public engagement in addition to the schedule 1 process (in the absence of a more flexible approach as per the LGA) would be extremely resource intensive. (sub. DR133, p. 8)

Wellington City Council concurred:

> Whilst Councils can and still do undertake non-statutory consultation exercises outside of the Schedule 1 they may choose not to, given the prohibitive costs and time involved and the fact a full Schedule 1 process is still required once the plan change is notified. The Council is open to amending the existing process so that it maintains its robustness but keeps pace with emerging social media trends and encourages more real time active engagement in planning processes. (sub. DR118, pp.17–18)

The procedural nature of Schedule 1, with its focus on publication in newspapers, submissions and hearings, may dissuade participation by some members of the community. The Office of the Auditor-General commented in a report on public consultation in local government that

> [t]he "traditional" approach of placing public notices in newspapers, holding public meetings, and receiving written and oral submissions has its shortcomings. It is a method known to reach only a limited number of people within the community, and elicits a response only from those who are knowledgeable and confident about the system. By its very nature, it excludes those who do not read the public notices section of the newspapers, and those who do not want to or cannot provide a written response. (1998, p. 51)

Laying down process requirements in legislation provides an assurance that local authorities will follow an acceptable procedure. But it can also stifle innovation and more inclusive consultation approaches. There are already obligations on regulators such as local authorities in the common law to consult in a fair and open manner, which provide protections for citizens. (NZPC, 2013, pp. 144–45) The Government should review whether the current Schedule 1 requirements provide the most effective approach to consulting on proposed new land use regulations.

R6.2 The Ministry for the Environment should review whether the current Schedule 1 requirements provide enough room for innovative consultation processes, while also protecting the rights of affected parties.

6.4 Leading practices in reducing the need for appeals

Earlier engagement

A number of local authorities reported to the Commission, both in submissions and engagement meetings, that publishing draft plan changes ahead of the notification stage had helped to identify issues early and led to smoother formal decision-making processes and fewer appeals. Wellington City Council noted that

> [d]raft plan changes are a useful non-statutory consultation phase which can help businesses and communities understand [what] the implications of the proposed plan change will be and to seek changes before it enters the more formal and potentially more costly statutory process. (sub. 21, p. 23)

Selwyn District Council attributed the success of a plan change that released more than 800 hectares of land for residential development in part to the fact that a

> draft plan change was circulated prior to notification and was changed after receiving comments. Significantly, a formal negotiation process with landowners was initiated to develop Outline Development Plans to be included in the notified version of PC7, avoiding the need for individual developers to engage in private plan changes to insert their own ODPs. (sub. 45, p. 5)

Waikato District Council reported that

> Council has found that placing greater emphasis on engaging with the community prior to any statutory consultation process helps to ensure that the statutory process is not burdened by appeals thereby enabling decisions on the plan change to be made faster or for them to become operative quicker. Engagement pre-statutory consultation also helps to get more people interested in what is being proposed so that they can provide feedback and make submissions. This approach builds trust between Council and the community as plan making is done through consensus building and understanding in that people affected by land use provisions or zoning changes have the opportunity to comment throughout the plan development process. (sub. 12, p. 6)

Similarly, Western Bay of Plenty District Council observed that one of its fastest plan changes, which was "for a residential development of 3 000 dwellings, straddled two districts, involved Regional consents, and NZTA for state highway access" was "able to progress efficiently because of the collaboration between all the agencies and the developer and its consultants prior to lodging the private plan change. There were no appeals" (sub. 36, p. 6).

These findings align with the Commission's recommendations in its *Regulatory institutions and practices* report that there should be general expectation that exposure drafts of legislation will be published and consulted on ahead of the formal introduction of Bills to Parliament (NZPC, 2014). The rationale for this recommendation was that early consultation on detailed proposals helps to:

- clarify whether the proposals are feasible and efficient; and
- iron out problematic provisions.

Similar arguments apply to pre-notification publication of draft changes to District Plans.

F6.8 Engagement with affected parties on proposed plan changes ahead of their notification and circulation of draft plan changes for comment are both leading practices that may help to reduce the incidence of appeals.

However, the Commission is reluctant to recommend introducing a general legislative obligation on local authorities for pre-notification publication of draft plan changes as proposed by Auckland Council (sub. 71, p. 17), given:

- circumstances may exist where wider publication is neither necessary nor appropriate (eg, site-specific plan changes); and
- pre-notification publication is more likely to lead to better outcomes if motivated by a desire to engage substantively with the community rather than by legislative obligation.

R6.3 Councils should publish and consult on draft plan changes of interest to the wider community ahead of notification, unless compelling reasons exist for not doing so.

Broader, more enabling zones

Another potential avenue for reducing the incidence of appeals is to design broad zones that enable a wide range of activities to occur. Broader zones are less likely to require rezoning (and hence appeals). The APC in its review of State and Territory planning, zoning and development assessment systems concluded that "zones should be broadly framed and more functionally oriented to limit the extent of rezoning required to accommodate unforeseen demand for different land use" (APC, 2011a, p. 135). The APC added:

> It is clear that:
>
> - the wider the definition of allowable uses encompassed in a given zone, the less likely it is that land with that zoning will require rezoning in order to be put to a different use…
> - wider zoning definitions also provide greater scope for the market to allocate land to its best use, albeit within the uses allowed by the zone
> - a small number of narrowly defined zones for a local council area increases the likelihood that certain activities will be effectively precluded from that local area. (p. 135)

The Proposed Auckland Unitary Plan (PAUP) and Christchurch Replacement District Plan (CRDP) both introduce a number of 'special purpose zones'. Both include special zones for schools, airports, cemeteries and hospitals. The PAUP also has a special purpose zone for retirement villages, while the CRDP has a zone for golf resorts.

A case can be made for such zones where there are large facilities with particular land use requirements that are unlikely to move sites, such as hospitals, airports and ports. Special purpose zones for retirement villages and schools appear more problematic, in that they require rezoning to establish new facilities and to dispose of surplus land, thereby adding cost and delay to the use and release of land.

F6.9 Broad zones that enable a wide range of activities to occur are less likely to require rezoning.

R6.4 Councils should limit the use of special purpose zones. They should only be used for large facilities with particular land use requirements that are unlikely to move sites.

6.5 Is there a case for limiting access to appeals?

The place of appeals in the planning system has been the topic of debate for some time. A number of submitters – mainly local authorities – argued that the ability to appeal plan changes or plan reviews should be limited (subs. 8, 21, 25, 36, 46, 54, 56, 70, 71, and DR130). Arguments made in favour of limiting appeals included:

- increasing the speed of rezoning and of the planning system;
- reducing risks for developers;
- improving the quality of final District Plan policies; and
- respecting the primacy of elected representatives in making policy.

The Commission acknowledges that limiting the ability to appeal plan changes may speed up the plan-making and rezoning process. However, any reduction in the time taken to complete a plan change may not be large, as Table 6.1 illustrates. In addition, any benefits gained from faster rezoning would need to be weighed against the loss of an institutional check on local authority regulation-making.

The Commission was not convinced that removing access to appeals would lead to better-designed District Plans or land use rules. Some local authorities argued that the ability for people to appeal local authority plan change decisions could lead to poorer-quality outcomes:

> The appeal process allows developers, community groups and residents to 'game' the system by not engaging in the process, drawing processes out and seeking sometimes unrealistic outcomes. Many of the unwieldy and complex rules in the District Plan originate from compromises made as part of the mediation and appeal processes. (Wellington City Council, sub. 21, p. 10)

> The draft report does not however pick up the use of the planning process by other groups to leverage outcomes not directly related to the planning issues at hand. This occurs by the lodging of submissions and appeals which can take months and in some cases years to resolve. Often the only way to resolve these appeals is by making concessions on other matters. (Tauranga City Council, sub. DR102, p. 5)

However, others pointed out that appeals can play an important role in correcting errors and encouraging better performance by local authorities. Nolan et al. (2012a) commented that the

> reality, which many participants in the RMA process would attest to, is that councils often make unsatisfactory decisions on many aspects of their policy statements and plans. This can be on major aspects, but in many occasions it is in areas of detail that can have significant impacts on business…the fact that councils know that their decisions can be appealed to the Environment Court means that they take a much more responsible approach to their decisions. (pp. 5–6)

The members of the Environment Court similarly noted in their 2014 annual review that the

> Court constantly experiences problems with poor drafting of planning instruments – not only during the processing of plan appeals, but also consent appeals. Speed of preparation and promulgation of instruments appears to be one factor, and the problems include prolixity, inconsistency, illegality, and objectives and policies lacking rules or other methods. (2014, p. 24)

Nolan et al. (2012a) further argued that the fact that 90% of plan appeals do not involve a formal court hearing is a measure of their effectiveness in correcting errors:

> This does not mean that 90% of appeals are ineffective and do not raise valid issues. It means that 90% of appeals raise valid or legitimate concerns that are capable of resolution through further discussion, negotiation or mediation. Cutting out the role of the Environment Court will reduce the effectiveness of policy statements and plans as the issues will not have been fully ventilated, considered and the most appropriate provisions arrived at. (p. 7)

Others have argued or acknowledged that appeals contribute to better quality decision making, by providing useful and wider information. Local Government New Zealand, in its submission to the Resource Management Reform Bill, observed that appeals are "invariably characterised by high quality analysis and evaluation of costs and benefits, much of it quantified (by councils and other parties)" (LGNZ, 2013b, p. 9). Nolan et al. said that local authorities "are more likely to accept submissions under the RMA process where there is a right of appeal than submissions where there is no right of appeal (for example, submissions on LTCCPs [Long-Term Council Community Plans] under the Local Government Act 2002)" (2012b, p. 7).

F6.10 Removing or significantly limiting the access to appeals would be unlikely to improve the quality of District Plans or land use regulations.

The ability to appeal a plan change or a resource consent does create risks for developers, especially for those wishing to undertake intensive developments (Kelly, 2011a). A wide-ranging limitation of appeal avenues would be a disproportionate response to this problem. The HASHA Act has attempted to meet this challenge by setting thresholds below which a resource consent only need to be limited notified and where access to appeals is limited. However, these provisions:

- apply only to 'qualifying developments' in special housing areas;
- will end with the expiry of the HASHA Act; and

- provide only limited exemptions for intensive development, as they do not cover dwellings or buildings higher than 6 storeys or 27 metres.

In the draft report, the Commission asked whether independent commissioners provided enough rigour and impartiality in deciding plan change proposals to justify limiting access to appeals. Although several submitters spoke positively about the experience of using independent commissioners, only one agreed that limiting appeals when they were used to make planning decisions was warranted (Property Council New Zealand, sub. DR100, p. 2). Some submitters expressed concerns that independent commissioners did not face the same incentives to take account of the council's infrastructure commitments and budget constraints, when making planning decisions (subs. DR9 and. DR104). Others were not persuaded that the case had been made to limit appeals, or felt it would require problematic changes elsewhere in the decision-making process (subs. DR127, DR120 and DR118).

The question of whether, and how, appeal avenues could be limited needs to be considered in the light of a wider review of the planning system and, in particular, of any alternative institutional arrangements to test the rigour and appropriateness of proposed land use regulation. The Government has recently announced that the planning system will be reviewed (National Infrastructure Unit, 2015b), and the Commission provides some thoughts on desirable aspects of a future planning framework in Chapter 11.

F6.11 The question of whether and how appeal avenues could be limited needs to be considered in the light of a wider review of the planning system and, in particular, of any alternative institutional arrangements to test the rigour and appropriateness of proposed land use regulation.

6.6 Approval processes

The time it takes to gain an approval for development matters for housing affordability. Glaeser and Gyourko (2003) found that increases in the average length of time taken between an application for rezoning and the issue of a building permit is strongly correlated with increases in the price of the housing stock. Evidence presented to this inquiry and the *Housing affordability* inquiry (2012a) emphasised the costs involved in regulatory delays.

Several submitters commented that the overwhelming majority of resource consents are approved within statutory timeframes (eg, subs. 21, 24, 36 & 70). While this is true, gaining a resource consent is only one step in the process of having a development approved. Delays can occur before, during and after a resource consent application is submitted. Key sources of delay cited by inquiry participants (other than consultation requirements and appeals, which are discussed above) included:

- developers having to coordinate between different council units; and
- uncertainty around council requirements.

Coordination costs

Developers sometimes need to coordinate between different council units or processes so as to clarify and meet their various regulatory or engineering requirements. Contradictory requirements, and inadequate internal systems to deal with conflicts, add to delays and costs (Box 6.1).

Box 6.1 **Difficulties developers face in coordinating within, and between, councils**

Officials still hold up processes. Key issues resulting in delays include: conflicting priorities within council holding up processes (e.g. parks and maintenance teams not being willing to take on parks, but urban design teams requiring them – puts the developer in an impossible position); lack of infrastructure being provided; overly complicated reports being required/disproportionate to

> the impact of the development; the same information being requested multiple times. (Property Council New Zealand, sub. 33, pp. 13–14)
>
> Delays can be caused by differences in opinion within Councils and between Councils. For example there can be divergent views internally about road design and stormwater treatment between the urban design team, the roading team and the maintenance team, disagreement between departments about the need for and the size of reserves and disagreement between Councils (District and Regional) about what stormwater infrastructure is appropriate. In such cases developers are forced to wait, sometimes very long periods (ie, months) while the Council works through the issues. (New Zealand Institute of Surveyors, sub. 74, p. 11)
>
> Developers felt that there is a lack of alignment between the council's (planning) goals/plans and those of the related council agencies (parks and reserves, Auckland Transport, urban design, Watercare). This results in developers trying to mediate disputes over how the development should be designed between different parts of council. In addition, they held the view that there was little or no accountability or pressure on Council staff to seek to resolve inter-departmental differences. (Grimes & Mitchell, 2015, p. 37)
>
> Challenges arise when different planners and council officers attend different meetings and raise different points, causing a lot of rework…. Often the planners attending the pre-app meetings are not the ones who do resource consent, causing more challenges due to interpretation and lack of knowledge of previous discussions. (Mike Greer Homes, sub. 48, pp. 3–4)

Uncertainty about Council requirements

Another source of delay and cost was a lack of clarity or certainty around Council requirements. Subjectivity and discretion in RMA plans, as well as inadequate skill levels within local authorities, were cited as causes.

Discretion and subjectivity

Subjective language in RMA plans, or scope for staff discretion, can make it difficult to predict the outcomes sought by councils or the likely response from council officers.

Mike Greer Homes noted that changes to the Christchurch City Plan had moved the pre-application phase for resource consents from a "rules based process" to one that "now is subjective and allows too much discretion and is subject to individual interpretation. There is no clear guideline, and it is up to the individual planner" (sub. 48, p. 3). Discretion in planning rules also permitted intervention by local authority officers that appeared intrusive and excessive:

> They can get down to some questionable detail, e.g. where we put the water cylinder, colour of doors. Varies from building lay-out to position, size of garages, colours and type of fences. (Mike Greer Homes, sub. 48, p. 4)

Design guides were another part of the planning system that created opportunities for differing interpretations and uncertainty:

> Design Guides tend to be filled with emotive, subjective language with no apparent empirical evidence supporting the design preferences in most cases…different interpretation of Design Guides by individuals even within the same BCA [Building Consent Authorities] is likely. For example, "positive open spaces", "visual appeal" and "quality of experience" mean different things to different people. (Registered Master Builders Association of New Zealand & the Construction Strategy Group, 2015, pp. 8–9)
>
> Developers think that the concept of "best practice" is a continually evolving concept particularly with urban designers. Engaging with these staff members takes time particularly since they have a limited concept of the marketability of the changes they propose. (Grimes & Mitchell, 2015, p. 44)

Subjectivity in planning rules could also lead to issues when local authority staff changed:

> A further challenge had come about as the time taken to get subdivision projects approved had grown. BCAs often had key staff members leave part way through a subdivision process. The new person assigned to the project would have dramatically different interpretations of the Building Code, District

> Plan, or the subjective question of what good urban design looked like. (Registered Master Builders Association of New Zealand & the Construction Strategy Group, 2015, p. 12)

Inadequate skill levels

A number of developers also reported that poor skill levels within local authorities created additional costs and curtailed innovation (sub. 53; Annex 7a to sub. 33; Grimes & Mitchell, 2015). The Commission highlighted options for improving the regulatory capability of local authority staff in its *Towards better local regulation* report, including:

- better communication between central and local government about the outcomes sought from regulation;
- clearer identification and targeting of resource and capability gaps within councils;
- stronger obligations on central government developing regulation (that will be implemented by local government) to consider the costs of implementation on councils; and
- the development of mechanisms for reviewing the regulatory practices of local authorities (NZPC, 2013, pp. 137–53).

Leading practices

The Commission identified two leading practices in use in New Zealand and elsewhere that respond to the issues outlined above – "one-stop shops" and electronic planning tools. The Commission also considered the potential for greater standardisation and liberalisation of New Zealand's planning system.

In considering leading practices, it is important to acknowledge the tension between the goals of certainty and flexibility. Systems based on "bright line" rules (ie, clearly defined objective standards) provide more certainty for developers and officials, but may struggle to keep up with changes in technology and market demand. Regulatory systems that provide for greater discretion (eg, principle- or outcome-based models) allow for more adaptability, but may lead to doubt about whether or not a particular development is compliant (and create additional costs in confirming compliance).

In recommending the following practices, the Commission gave more weight to certainty. It did so for two reasons. First, uncertainty increases the risks for developers, increasing the expected rate of return that any development must meet to be viable. This is likely to reduce the supply of new housing. Second, the Commission concluded that, in a number of high-growth areas, the planning systems and institutions did not have the characteristics required to make principle- or outcome-based regulation work effectively. As discussed in the *Regulatory institutions and practices* report, such regulation tends to work best where outcomes or goals can be easily and objectively measured, or where regulators are well-resourced and capable and the trust between regulators and the regulated industry is high (NZPC, 2014, pp. 194–95). This did not appear to be consistently the case in the planning system.

"One-stop shops"

Problems coordinating across different units of local government (or State governments in some jurisdictions) are common in many countries, and administrative responses often involve the establishment of "one-stop shops" to reduce transaction costs for developers. A number of New Zealand councils have taken similar steps.

- Hamilton City Council reported in its submission that it has established the role of Major Development Case Leader "to assist major complex development in the city. This position has no influence on the consenting process but works to ensure a 'one-point-of-contact' for developers at a senior leadership level" (sub. 70, p. 12).
- Auckland Council's Housing Project Office (HPO) brings together representatives from the council's resource consent, planning and stormwater units, as well as Auckland Transport and Watercare Services Ltd. The aim is to provide "a customer-centric one-stop shop" for development proposals that qualify under the Housing Accord, and ensure "the customer has one main point of contact within Council and the CCOs [Council controlled organisations]" (sub. 71, p. 5).

- Western Bay of Plenty District Council encourages developers to meet with staff before committing to a particular proposal:

  > At such a meeting we have all the appropriate staff present including utilities, roading, reserves, policy planner and the consenting planner. At such a meeting we are able to better understand what the applicant wants to achieve, and to clarify what our requirements are likely to be; flexibility is applied to meet agreed outcomes. It provides a no surprises approach, there is frequently more than one meeting, and the applicant is not charged for Council time. It leads to a high level of certainty and much faster processing of the application when it is lodged. (sub. 36, p. 4)

- Wellington City Council is introducing a Housing Accord Project team to provide a "fully integrated, case-managed process for qualifying developments consent applications" (Wellington City Council, n.d. b).

- The Christchurch City Council (CCC) established Rebuild Central following the 2010 and 2011 earthquakes to provide "specialist assistance to property owners, business owners and investors interested in redevelopment in or relocation to the central city" (CCC, n.d.). The Rebuild team includes urban regeneration, planning, design and building consent experts and has links to other relevant specialists and disciplines. Once a project begins to take shape, a case manager is appointed to steer it through the relevant council and statutory processes.

Such practices can help clarify expectations and reduce transaction costs, and a number of developers spoke positively about them, especially Auckland Council's HPO (see, for example, MBIE, 2014d, pp. 1–2; Property Council New Zealand, sub. 33, p. 16).

F6.12 Providing a "one stop shop" for developers by bringing together all parts of a council that influence a development project can help to reduce transaction costs and unnecessary delays.

While speaking favourably about the HPO, developers also noted that co-locating staff did not always resolve the problem of differing organisational objectives between the Council and Council controlled organisations (CCOs). Although the HPO was viewed as a positive step towards integrated decisions on developments, developers felt

> it needs more power, coupled with cohesive objectives between silos, to effect real change and decide the best path to achieve the best quality outcome. Currently, the final desired outcome is put at risk, and given insufficient consideration, by trying to be 'everything to everyone'. (Property Council New Zealand, Annex 10 to sub. 33, p. 3)

The Property Council and Development Advisory Services questioned whether Auckland Transport and Watercare had the same priorities as Auckland Council in terms of achieving higher-density development, and developers argued that the HPO should be given "more authority to resolve specific development trade-offs within the wider Council family" (Property Council New Zealand, Annex 10 to sub. 33; Development Advisory Services, sub. 74, p. 4; MBIE, 2014d, p. 1). The issue of CCO governance and coordination with wider Council objectives is addressed in Chapter 10.

Electronic application and planning tools

Electronic development assessment processes can reduce delays and costs for developers, while also improving consistency, accountability, information collection and benchmarking (APC, 2011a, p. 276). The introduction of electronic planning tools has been a focus of reform in Australia since 2008 (Local Government and Planning Ministers' Council, 2009) and tools have been progressively rolled out in various degrees in the States and Territories. Victoria and the Northern Territory (NT) are the most advanced, with 70% of development approval applications in Victoria and 100% in NT lodged electronically (Residential Development Council / Property Council of Australia, 2012, pp. 52–53). The types of electronic tools in use in Australia are outlined in Box 6.2.

Box 6.2 **Electronic planning tools in Australia**

Across Australia

At a high level, seven main types of tools are currently in use.

- **Development assessment tracking** – applicants can view the status of their proposal as it moves through a council's internal assessment process.
- **Smart forms of electronic submission of information** – users are guided through a checklist specific to their proposed development, including reports and attachments.
- **Certified planning information** – users can obtain (including purchase) a copy of the relevant planning information for their site from a website instantly.
- **Filtered planning controls** – planning controls are drawn out of documents and packaged for specific proposals, negating the need to check multiple documents.
- **On-line maps** – users can search for their site and view layers of information (for example, zoning), environmental sensitive areas and heritage items.
- **Electronic development activity gathering** – development activity data is collated.
- **Centralisation of planning information** – jurisdictional "one-stop shops" for planning infrastructure (APC, 2012, p. 298).

New South Wales

The NSW Department of Planning and Environment has a number of e-planning tools in place, including those noted below.

- **Interactive Buildings:** a "free online tool [to] help people to understand and interpret development standards for common building works that require no further planning approvals":

  > To check planning requirements for a property, users simply select the type of building they want to investigate and a three dimensional diagram of a residential, commercial or industrial property appears on their screen. A menu displays possible development options such as alterations, outdoor/garden items, fences and retaining walls and signs. When users select an option, the tool zooms in to the required feature on the property and a pop-up box appears showing the planning requirements in plain English. (NSWDPE, 2014a, p. 1)

- **Planning Viewer:** "a free online tool that provides a visual way to show the planning rules that apply for properties across NSW":

  > Users can do a basic text-based search by either typing in an address or place, or an interactive search directly on the map. You can also use land titles information to do an advanced search. Once a property is found, the user can view a summary of the relevant planning rules or select different map layers. (NSWDPE, 2014b, p. 1)

The availability of electronic planning tools in New Zealand varies between councils. The 10 territorial authorities that the Commission is focusing on had their District Plans and associated maps available online, and had downloadable application forms for resource consents and plan changes. Eight of the ten authorities had searchable Geographical Information System (GIS)-based maps, and some (eg, Auckland Council) permitted searchers to visually layer different planning rules on particular areas (eg, additional height restrictions or heritage overlays) and view the location of significant infrastructure assets. Auckland Council's website also allowed searchers to find out which PAUP zones and/or overlays applied to specific properties.

Other functions were more limited in their reach.

- QLDC's eDocs service allowed online applications for resource consents, and consent decisions are sent electronically. QLDC intends to add the ability for people to track the progress of their consent applications within the next 12–18 months.

- CCC's Online Services allowed people to apply online for a resource consent, check their documents and upload further information, but not track the progress of their application. This functionality should be added within the next couple of years.
- Auckland Council's website allowed online booking of pre-application meetings and the uploading of related documents.
- The remaining councils either required hard copy resource consent applications or allowed application by email.

F6.13 Opportunities exist in New Zealand to reduce costs and delays by making greater use of electronic planning tools.

Greater standardisation

Another approach taken to speed up approvals and reduce uncertainty is to standardise and ease regulatory requirements around some forms of residential development. Such approaches are prominent in Australian States and Territories, where State-wide residential codes and planning polices set common standards around particular types of development (eg, standalone residential dwellings and, in some States, multi-unit developments).

This standardisation enables fast-tracked assessment and approval of lower-risk development types ("code assessment"). The APC, in a 2012 examination of the impact of development assessment reform, estimated the full introduction of code assessment could create compliance cost savings of A$220 million a year, A$45.3 million of which would accrue to residential development (APC, 2012, p. 307).

Some degree of standardisation in land use rules is already occurring, as a result of local government reforms. The establishment of Auckland Council and development of the PAUP means that the 99 residential zones in place across the region prior to amalgamation will be replaced by 6 (subject to any recommendation from the Independent Hearings Panel). The HASHA Act has also – albeit temporarily – introduced common and streamlined approval processes for particular types of residential developments in declared areas.

Clear scope exists for further harmonisation and standardisation within the New Zealand planning system, particularly around commonly used terms in District Plans. This scope was noted in the Government's 2013 discussion document on proposed reforms to the RMA:

> **In the Wairarapa District Plan:** "Ground level – the natural level of the ground; or the finished ground level approved at the time of subdivision or development."
>
> **In the Horowhenua District Plan:** "Ground level means the natural level of the ground; or the finished level of the ground when all engineering and development works that are required by council in the course of any subdivision or development have been completed."
>
> **In the Lower Hutt District Plan:** "For the purposes of calculating maximum height, ground level shall be deemed to be the natural level of the ground or the finished level of the ground as a result of an approved subdivision, and shall not include earthworks which have resulted or will result from work undertaken as part of the construction of the building or site." (MfE, 2013b, p. 19)

Similarly, a 2008 report prepared for the MfE reduced 460 planning terms from District Plans and other sources to 43 standard definitions (MfE, 2008). Recent announcements by the Minister for the Environment on proposed reforms to the RMA indicate that the government intends to introduce greater standardisation of plans, including through mandatory templates (Minister for the Environment, 2015). The Commission has also recommended elsewhere in this report controls on the internal design and construction of buildings should be managed through the national Building Act 2004 and Code, rather than through bespoke standards in District Plans (Chapter 5). These will help provide greater consistency in the planning system.

However, it is not clear that a net benefit would be gained from extensive standardisation of land use regulation, along Australian lines. The Australian system of having consistent and common rules for specific

types of residential developments works in part because State and Territory governments also set standard zones and overlays that local authorities must use in preparing their plans. By comparison, local authorities in New Zealand set their own zones.

New Zealand's highly devolved system does have a cost. A 2010 MfE report noted:

> Most district plans have at least one or more residential zones. However, a quick analysis of 230 residential zones contained in RMA plans suggests that no two are exactly alike – even when many have similar names and broadly similar purposes, the rules and standards that apply vary. (MfE, 2010a, p. 16)

Such variations are likely to be costly for developers and organisations that work across local authority borders. However, costs are involved with moving to a system of nationally consistent zones. Moving to such a system would effectively require full plan reviews, creating considerable costs and upheaval for local authorities and uncertainty for developers. Based on the average cost of $1.9 million to produce a first-generation District Plan (MfE, 2010a, p. 18), the direct costs of such a move could exceed $127 million.

Further, it is not certain that national consistency would necessarily deliver less complexity and more efficiency in the planning system. A review of the introduction of the Victorian Planning Provisions, which "introduced an unprecedented amount and type of standardization into Victorian planning schemes and removed a strong orientation towards local control", concluded that the reforms had failed to deliver smaller and less complex planning documents, greater certainty and more efficiency (Buxton, Goodman & Budge, 2003). Indeed, Buxton, Goodman and Budge found that plans were longer and more complex after the reforms, and that processing times for development approvals in most councils increased (2003, pp. xii–xvii). A later Ministerial review of the Victorian Planning Provisions in 2011 was more favourable about standardised zones, but noted the system's lack of flexibility. (Victorian Planning System Ministerial Advisory Committee, 2011)

Finally, greater standardisation may not deliver a greater supply of development capacity. The introduction of three new residential zones in Melbourne by the State government in 2013 saw several local authorities apply the most restrictive zone (Neighbourhood Residential Zone) to large areas of land. The first council to apply the new zones (Glen Eira) applied the Neighbourhood Residential Zone to 78% of residential land. Other inner and middle ring Melbourne suburbs applied similarly restrictive zoning (Kelly & Doneghan, 2015). Planners and developers expressed concerns that these decisions would reduce capacity, lead to inefficient land use, and see dwelling growth pushed to the Central Business District (CBD) and outer fringes (Property Council of Australia, 2013; Derkley, 2014).

F6.14 The benefits of nationally standardised land use rules and zones, such as occur in many Australian states, are unlikely to outweigh the costs.

Few submitters saw benefits in standardising land use rules for residential development. However, Property Council New Zealand argued that greater guidance and oversight was needed to ensure that local residential rules and controls were appropriate and reasonable:

> Property Council appreciates the Commission's concerns as to the benefits of nationally consistent land use rules and agrees that a one size fits all approach can result in unintended consequences. We support a two-step approach: in the short term, councils should have discretion over land use rules or specific types of residential development – such a move would need to be accompanied by a guide outlining issues that council must take into consideration. In the event of underperformance or significant issues arising, the Minister responsible would have powers to intervene. (sub. DR100, p. 3)

Underlying this argument is the idea that the planning system needs to have some counterveiling force to ensure that planning controls are proportionate and reasonable. The Commission agrees that tighter checks on regulatory quality are needed in the planning system, and outlines some proposals in Chapter 11.

Further liberalisation

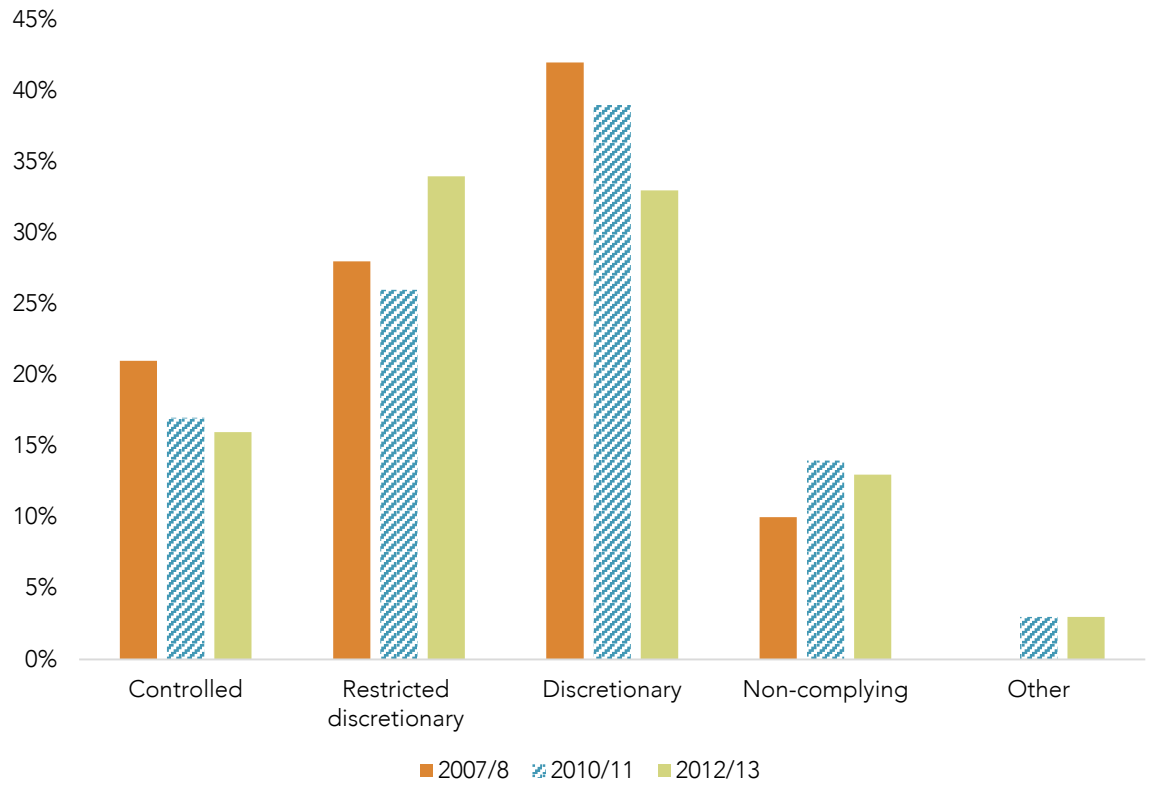
One further way to reduce regulatory costs is to remove the requirement for local authority approval or reduce the scope for discretion. This is one of the goals of Australia's development assessment reforms, creating clear "tracks" into which simple and low-risk proposals are either exempted from assessment or assessed against objective measures.

In the New Zealand context, this would mean:

- moving a larger proportion of residential land-use activities into the "permitted" or "restricted discretionary" classifications; and
- more tightly defining District Plan requirements on aspects that manage genuine externalities. For example, Western Bay of Plenty District Council argued that the key controls that should be applied to conventional dwellings were "height, daylight, yards, fence heights, and coverage" (sub. 37, p. 4). Raewyn Catlow similarly argued for a replacement of density limits with "bulk and location controls" and "design based controls eg controls on overshadowing, overlooking, how much outdoor living space must be provided which protect onsite amenity and amenity of neighbouring properties" (sub. DR87, p. 1).

Little information exists on the proportion of land-use activities "permitted" under existing District Plans. Information collected on the performance of the planning system focuses on the issue of resource consents (which are not required for "permitted" activities). The MfE's 2012/13 biennial survey of local authorities did detect a shift in resource consent activity away from the more restrictive "discretionary" status, but it is unclear whether this is driven by changes in District Plan policies or by the nature of developments (Figure 6.3).

Figure 6.3 Percentage of territorial authority consent applications, by activity type



Source: MfE, 2014.

Even so, the experience of the Queenstown Lakes District Plan review suggests that scope exists for further liberalisation of residential land use requirements in current RMA Plans (Box 6.3).

Box 6.3 **Leading practice: Queenstown Lakes District Plan review**

Queenstown Lakes District Council (QLDC) is currently reviewing its District Plan, with a view to providing greater accessibility, focus and flexibility. As noted in Chapter 5, one outcome of this review is a proposal to remove minimum private open space requirements in the city's high-density residential zone. Other proposals include:

- easing development controls in the high-density zone to permit 3–4 storey development;
- replacing a "units per square metre" approach to zoning (eg, minimum lot sizes) in a new medium-density zone with a "floor area ratio" that could allow a wider range of development opportunities while protecting amenity; and
- moving a number of development activities from "discretionary" to "permitted" or "restricted discretionary" status so as reduce the need for notifications and to provide greater certainty over outcomes.

Source: Queenstown Lakes District Council, sub. 54, p. 4; New Zealand Institute of Surveyors, sub. 74, p. 6.

F6.15 Little information is available on the proportion of land use activities that are "permitted" under existing District Plans. However, the experience of the Queenstown Lakes District Plan review suggests that scope exists for further liberalisation of residential land use requirements in current RMA Plans.

R6.5 In reviewing their District Plans, local authorities should move more residential land-use activities into "permitted" or "restricted discretionary" status.

CCC broadly agreed with the recommendation to make more residential land-use activities "permitted" or "restricted discretionary", but noted that this may mean local authorities take a more conservative approach to setting land use rules:

> A primary focus for the review of the Christchurch City District Plan has been simplifying of planning rules to allow more development on a permitted activity basis. However, a greater degree of permissiveness can result in a more conservative and prescriptive approach to setting standards to ensure there are no unforeseen adverse effects. (sub. DR128, p. 7)

This is a possible outcome of a greater shift towards more liberal planning controls. However, this would also mean more clearly specified rules and less scope for uncertainty.

6.7 Conclusion

High-growth councils appear to face greater challenges in rezoning land promptly than other local authorities, with appeals and consultation obligations being key sources of delay. In part, this simply reflects the fact that cities and fast-growing areas have more people and interests to manage. Potential exists to ease some of these barriers by giving local authorities more flexibility to only notify directly affected parties about rezoning proposals that are specific to a particular site. The statutory consultation requirements of the RMA also need re-examining, to make sure that they are sufficiently cost-effective and do not unnecessarily impede more innovative or inclusive forms of engagement.

Some inquiry participants claimed that the ability to appeal plan changes means that rezoning to enable more development capacity typically takes many years to complete. Available data do not support these claims, with the median length of plan changes in high-growth areas at slightly over a year and a half. Nor was the Commission convinced that limits on appeals would lead to better-quality District Plans or land use rules. Questions about access to appeals need to be considered in the context of a wider review of the

planning system. In the meantime, engagement with affected parties on proposed plan changes ahead of notification, and the development of broader, more enabling zones may reduce the incidence of appeals.

The speed with which a development gains a consent matters for housing affordability. Developers reported problems with unclear council requirements, or difficulties coordinating between or within local authorities. Greater use of electronic planning tools and "one-stop shops" and a liberalisation of residential land-use activities in District Plans would help to resolve these problems.

7 Policies targeting lower-cost housing

Key points

- Inclusionary housing policies refer to requirements or incentives in the planning process to provide "affordable" or lower-cost housing as part of a development. Such policies are common in overseas jurisdictions. In New Zealand, only Auckland Council and Queenstown Lakes District Council have inclusionary housing provisions in their current or proposed District Plans.
- Special Housing Areas (SHAs) and Housing Accords have created opportunities to introduce new policies intended to improve "affordability". Cities and high-growth areas with Housing Accords have taken different approaches, with some requiring developments in SHAs to provide a proportion of housing at specified price thresholds, and/or for people at specified incomes. Others have preferred to negotiate with developers on a case-by-case basis.
- International evidence suggests that inclusionary housing policies have a very small impact on the overall supply of lower-priced housing, and can have a number of other, undesirable effects. There is not a strong case for their expansion in New Zealand.
- Inclusionary housing policies tackle the symptoms of the reduced supply of lower-priced housing, rather than the causes. These causes include restrictive planning controls and the high-cost nature of New Zealand's building industry. To increase the supply of lower-priced housing, the Government and councils should focus instead on easing planning controls and establishing or supporting institutions that can reduce barriers to supply such as the lack of land parcels that are sizeable enough to make large-scale development economically-feasible.
- One important contribution that governments can provide to support the development of lower-cost housing is land. Central government and local government own large amounts of land in our growing cities, although information about the quantity and state of this land is patchy. Available information suggests that significant amounts of public land may be bare, vacant or substantially unimproved, and suitable for residential development. The Government and local authorities should make an inventory of their land holdings to identify sites that could be freed up for housing.
- The Government has recently announced a tender to use more than 400 hectares of Crown land in Auckland for housing, and has taken early steps to use public land in Christchurch to increase the supply of affordable housing. There are likely to be opportunities to use surplus public land in other high-growth cities to help offset the shortfall of lower-priced housing, especially through partnerships with other landowners to achieve scale.

7.1 Introduction

One distinctive feature of New Zealand housing markets over the past thirty years has been the shift in new housing production towards more expensive dwellings (see Chapter 3). As a result, concerns have been expressed about the future provision of lower-cost dwellings and the existing supply of such housing. Some local authorities have taken steps through their planning provisions to encourage the provision or retention of lower-cost housing through rules or conditions attached to rezoning or development applications (also known as inclusionary zoning or inclusionary housing policies).

This chapter:

- considers examples of inclusionary housing policies overseas and in New Zealand;
- analyses the impacts of such policies; and
- explores alternative options to promote the provision of lower-cost housing.

7.2 Inclusionary housing policies

Inclusionary housing policies cover a wide range of tools and approaches but, broadly defined, refer to requirements or incentives in the planning process to provide "affordable" or lower-cost housing as part of a development. They are common in a number of other jurisdictions similar to New Zealand. Three examples are noted below.

- Section 106 of England and Wales' Town and Country Planning Act 1990 makes the provision of affordable housing a "material consideration" for the provision of planning approval. Under this law, local authorities that have identified a need for social or low-cost housing in their area can require that a proportion of housing on a development is, by some measure, affordable (Whitehead, 2007, p. 33). The proportions sought vary between local authorities and are subject to negotiation between councils and developers. The affordable housing provided is then transferred to independent social landlords (Austin, Gurran & Whitehead, 2014, p. 463).
- Inclusionary housing policies have been a feature of US planning since the 1970s (Murphy & Rehm, 2013, p. 7). US governments apply a range of policies, which Gurran et al. have described as falling into two broad camps: efforts by state and federal governments to reduce local planning barriers to denser and affordable housing, and voluntary or mandatory developer contributions for affordable housing (Gurran et al., 2008, p. 65).
- South Australia introduced a requirement in 2005 that 15% of all new dwellings in significant development projects are affordable (defined in terms of a price point for the housing, and income levels for the purchasers/renters). The policy was initially implemented through government land releases on the urban fringe, but is now being applied to urban redevelopment projects (Davison et al., 2012, p. 48).

A large number of submitters and other stakeholders argued that New Zealand's planning and development system should make greater use of inclusionary housing policies (subs. 17, 18, 27, 34, 39, 69, DR81, DR90, DR99, DR114, DR121, DR124, DR128, DR131 & Registered Master Builders Association of New Zealand Incorporated & the Construction Strategy Group, 2015).

New Zealand practice

Provisions in Resource Management Act plans

Both the Environment Court and the High Court have concluded that affordable housing policies and rules fall within the scope of the Resource Management Act 1991 (RMA) and can be legitimately addressed through District Plans (*Infinity Investment Group Holdings Ltd et al. v Queenstown Lakes District Council* [2010] NZEnvC 234 & *Infinity Investment Group Holdings Ltd et al. v Queenstown Lakes District Council* [2011] NZHC 74).

Yet only two territorial authorities within the scope of this inquiry have inclusionary housing policies in their current or proposed RMA plans.

Auckland

In Auckland, the Proposed Auckland Unitary Plan (PAUP) seeks to "improve the affordability of dwellings for households on low to moderate incomes" by:

- encouraging "residential development to provide a range of dwelling types and sizes that help meet the housing needs of households on low to moderate incomes, including social housing and lower cost, market rate housing"; and
- requiring "new large-scale residential development within the RUB [Rural Urban Boundary]" and encouraging "all other development to provide a proportion of dwellings that are affordable for the intermediate housing market" (Auckland Council, 2013b, B2.4).

The PAUP proposals would be implemented by requiring developers to provide 10% of their total production as "retained affordable housing" in new greenfield and brownfield developments of 15 or more

lots or units (Auckland Council, 2013b, Chapter H, section 6.6). "Retained affordable housing" must be sold or rented below specified price points (see the discussion of Special Housing Areas below for more detail).

Queenstown Lakes

The Queenstown Lakes District Council (QLDC)'s District Plan includes an objective of ensuring "access to Community Housing or the provision of a range of Residential Activity that contributes to housing affordability in the District" (QLDC, 2012a, Section 4, p. 59). This objective was only made operative in 2013, following appeals from developers to the Environment Court and the High Court and changes made to the proposed District Plan policy through consent orders. The community and affordable housing objective is implemented through:

- assessments of resource consents for developments in the low-density residential zone;
- assessments of resource consents for developments that would breach density, height, minimum lot size or coverage rules; and
- proposed plan changes (QLDC, 2012a, Section 4, p. 59).

Housing Accords

At a national level, the Housing Accords and Special Housing Areas Act 2013 (HASHA) permits the responsible Minister and local authorities to agree Housing Accords, through which both parties agree to "work together across a range of housing issues, according to the matters that they may identify as relevant to improving housing supply and affordability" (s. 11 (2)(a)). There is no statutory definition of "affordability" in the Act, and the Government does not appear to have a policy definition.

The eight Housing Accords signed to date take different approaches to the matter of affordable housing, although most focus on reducing the time taken to subdivide and prepare land and encouraging greater land supply. The affordable housing objectives in many Housing Accords are ambiguously drafted, making monitoring of performance difficult (Table 7.1).

Table 7.1 Affordable housing provisions in Housing Accords agreed to date

Housing Accord with the New Zealand Government	Affordable housing provisions
Auckland Council	• Increase housing supply. • All developments that qualify for the accelerated approvals process are required "to give consideration to the provision of affordable housing and/or first home buyer purchase". This may be included in conditions of consent.
Tauranga City Council	• "To deliver smaller dwellings at a more affordable price point." • Maintain sufficient supply of land to ensure "a healthy degree of competitive pressure amongst developers".
Western Bay of Plenty District Council	• "Council and Government additionally agree to coordinate their efforts on other issues impacting the provision of affordable housing."
Wellington City Council	• Increase housing supply and speed of development. • "Ensure housing developments provide a mix of house types and include more compact affordable homes to be sold at different price points."
Tasman District Council	• "Encourage developers to subdivide, prepare their land and build houses following release of serviced residential zoned land more quickly than has been the case over the last three years." • "Encourage housing developments to provide for a mix of house types and include more affordable homes to be sold at different price points."

Housing Accord with the New Zealand Government	Affordable housing provisions
	• "Maintain an appropriate supply of undeveloped zoned and serviced land for residential development to ensure a healthy degree of competitive pressures amongst developers."
Nelson City Council	• "Encourage developers to subdivide, prepare their land and build houses following release of serviced residential zoned land more quickly than has been the case over the last three years." • "Encourage housing developments to provide for a mix of house types and include more affordable homes to be sold at different price points." • "Maintain an appropriate supply of undeveloped zoned and serviced land for residential development to ensure a healthy degree of competitive pressures amongst developers." • "Encourage the redevelopment of suitable residentially zoned land to yield greater density of new dwellings that may be more affordable." • "Review planning provision for residential living in Nelson to provide greater flexibility around housing choices."
Christchurch City Council	• "Develop, or facilitate development by private developers, [of] medium density affordable housing." • "Seek private sector partners to develop innovative mixed tenure housing on Government-owned land on Carrs Road." • "Identify surplus Crown and Council owned land that may be appropriate for residential development." • "Establish a housing entity or entities capable of meeting the requirements of being registered as a Community Housing Provider, to redevelop Council owned social housing assets and to develop social and/or affordable housing to better meet [the] future housing needs of the city." • "Monitor the progress of the housing related actions in the Land Use Recovery Plan, and take action to address any issues that are impeding the supply and affordability of residential development."
Queenstown Lakes District Council	• "Encourage developers to prepare their land and build houses more quickly than has been the case over the last three years." • "Ensure housing developments provide a mix of house types and include more compact affordable homes which can be sold at different price points."

Source: Auckland Council / New Zealand Government, 2013; Tauranga City Council / New Zealand Government, 2014; Western Bay of Plenty District Council / New Zealand Government, 2014; Wellington City Council / New Zealand Government, 2014; Tasman District Council / New Zealand Government, 2015; Nelson City Council / New Zealand Government, 2015; Christchurch City Council / New Zealand Government, 2014; QLDC / New Zealand Government, 2014.

Most Housing Accords do not define "affordability". The exception is Christchurch, which defines affordability in its "aspirational targets" as:

- "[a] 10% reduction in the number of households at the 40th percentile of household income paying more than 30% of household income on housing"; and
- "[a]n increase in the proportion of new build consents with a value of less than $250 000" (CCC / New Zealand Government, 2014, p. 7).

Special Housing Areas

Auckland's Special Housing Areas (SHAs) have detailed affordability criteria for qualifying developments. Developments with more than 15 dwellings must ensure that:

- 10% of the total dwellings are "relative affordable" (defined as "sold for no more than 75 per cent of the Auckland region median house price"); or
- 5% are "retained affordable" (defined as "sold at a price where the monthly mortgage payments … do not exceed 30 per cent of the Auckland median household income").[39]

Purchaser eligibility criteria exist for the affordable houses within Auckland SHAs. A purchaser of a "relative affordable" dwelling must have a gross household income that does not exceed 120% of the Auckland regional median, be a natural person, a first-home buyer and intend to own and occupy the dwelling for at least three years. For a "retained affordable" dwelling, the purchaser must be a registered community housing provider or Housing New Zealand Corporation.

The Order in Council establishing the Western Bay of Plenty's SHAs requires that a

> minimum of 25% of the dwellings in each qualifying development must have a maximum land and house price of $350,000, [and]
>
> minimum of 25% of the dwellings in each qualifying development must have a maximum land and house price of between $350,001 and $400,000. (Housing Accords and Special Housing Areas (Western Bay of Plenty District) Order 2015)

The remaining SHAs throughout the country do not have affordability criteria explicitly laid out in their founding Orders in Council. To the extent that councils in these areas wish to pursue inclusionary housing goals through their SHAs, they are likely to negotiate with developers. For example, Tauranga City Council's Housing Accord policy states that the Council "will negotiate affordable housing outcomes for each special housing area and/or qualifying development on an individual basis" (Tauranga City Council, 2014a, p. 4). Negotiations will cover dwelling sizes, section sizes, the general price of dwellings in relation to Tauranga medians, the nature of any covenants, purchaser types, the potential to target specific housing needs, the spread and mix of housing types, and the ability to secure affordability outcomes through "an appropriate, legal mechanism" (Tauranga City Council, 2014a, pp. 4–5).[40]

Impacts

New Zealand inclusionary housing policies are relatively new and have not yet been evaluated. However, international evidence on the experience of such policies suggests that they have little impact on the overall supply of lower-priced housing. They can also have a number of other, undesirable effects, including uncertainty and delays, higher prices for non-targeted dwellings and significant administrative costs.

Little impact on the overall supply of lower-priced housing

Inclusionary housing policies tend to have a limited impact on the overall supply of lower-priced dwellings. A RAND Corporation technical paper on inclusionary zoning (IZ) commented that

> IZ policies are intended to add to the supply of affordable housing, but they tend to produce small numbers of homes, potentially at substantial cost. To date, IZ programs have played a relatively small role in meeting the nation's need for affordable housing. It is estimated that IZ programs nationwide have led to the creation of approximately 150,000 units over several decades (Calavita and Mallach, 2010). In contrast, HUD's [the US Department of Housing and Urban Development] largest rental assistance program—Housing Choice Vouchers—serves approximately two million households, while the LIHTC [Low-Income Housing Tax Credits] program has created more than two million affordable homes. (Schwartz et al., 2012, p. 7)

Powell and Stringham (2005) note the small contribution made by inclusionary housing policies in California, especially when compared to assessed need:

> …in the San Francisco Bay Area, the Association of Bay Area Governments estimated the need for very low-, low-, and moderate-priced units to be 133 195 units , or 24 217 per year during the 2001-2006 five and a half year period. Yet in the thirty-plus years that inclusionary zoning has been implemented in the San Francisco Bay Area, inclusionary zoning has resulted in the production of only 6 836 affordable units,

[39] Developers can also combine these two approaches.

[40] The 'legal mechanism' may refer to covenants or other requirements on the owners of affordable houses to ensure that they are not sold on to the general market (eg, such as the requirement in the PAUP that 'retained affordable' houses are owned by registered community housing providers.)

> or 228 units per year. Controlling for the length of time each program has been in effect, the average jurisdiction has produced only 14.7 units for each year since adoption of its inclusionary zoning requirements…The results are similar in Southern California. Thirteen jurisdictions in Los Angeles County and Orange County have inclusionary ordinances, and controlling for the length of time each of these ordinances have existed, these jurisdictions produce an average of 34 units each year. Yet the estimated need for affordable housing in this area is over 1 600 units per year. The affordable housing mandates in California and elsewhere hardly put a dent in the regional need for affordable housing. (pp. 476–77)

Gurran et al. (2008) said of the England's Town and Country Planning Act 1990 provisions that the "s106 mechanism too has delivered concrete outcomes but at around 700 affordable homes each year, these remain only a small proportion of overall output" (p. 89).

F7.1 International evidence indicates that inclusionary housing policies make a very small contribution to the provision of lower-cost dwellings.

One explanation for the poor performance of inclusionary housing policies may be the lack of other supportive policies. Inclusionary housing policies appear to work best when they are part of a wider suite of tools. Whitehead (2007) concluded that while land use regulation for affordable housing

> may be one valuable tool in a government's armoury, the land use planning system alone is very unlikely to be a primary source of additional affordable housing…large-scale government financial support is also necessary if affordable housing provision targets are to be achieved. (p. 41)

A review by the Australian Housing and Urban Research Institute into planning provisions for affordable housing similarly found that

> [p]lanning mechanisms alone (either mandatory or voluntary) are generally insufficient to secure a significant supply of affordable housing in high value urban renewal or infill contexts without additional resources in the form of land dedication or government funding. (2014, p. 3)

F7.2 Council polices on inclusionary housing are likely to struggle without a range of other supporting polices, most of which require support from central government (such as land and funding).

Uncertainty and delays

Inclusionary housing policies that involve a high degree of discretion on the part of local authorities create the risk of uncertainty and delays to development approvals. The English system of Section 106 agreements, which involves negotiations between councils and developers to determine the exact form and scale of the affordable housing contribution was criticised in a review commissioned by the UK Deputy Prime Minister for its lack of transparency, potential for abuse and length of the process, which could "take many months, occasionally years, and are costly in both local authority and developer time and resources" (Barker, 2004, p. 67).[41] The review recommended scaling back the scope of the agreements, and providing an alternative of local authorities levying a charge on developments. Davison et al. also emphasise the importance of certainty in affordable housing requirements for developers:

> A key message from developers was that certainty is what they want the planning system to deliver, more than anything else. (2012, p. 108)

Uncertainty and discretion can create barriers to entry and inefficiencies. Of the Section 106 agreements, Cheshire et al. (2014) comment:

> …developers invest heavily in the expertise to negotiate favourable agreements. This is a fixed cost that new entrants and small firms have difficulty affording. Moreover it is yet another opaque element in the British planning system making it difficult for foreign firms to enter the market. (p. 135)

[41] A later review of land use planning by the same economist found that 45% of Section 106 negotiations took longer than six months to complete (Barker, 2006).

Gurran et al. (2008) similarly note that the inability of developers to "make a price estimate of the ultimate cost of the contribution" under Section 106 is "likely to deter housing development" (p. 107).

F7.3 Inclusionary housing policies that involve high degrees of discretion on the part of local authorities create uncertainty and delay, discouraging development.

Higher prices for non-"affordable" housing

Inclusionary housing policies can increase the price of non-"affordable" housing, although the likelihood and size of the effect depends on the nature of the policy, the state of the property market and price elasticities.

Knaap, Bento and Lowe (2008) reviewed the impacts of inclusionary zoning schemes in California and found that they increased costs in higher-priced markets:

> We also found that housing prices in cities that adopted inclusionary zoning increased about 2-3 percent faster than cities that did not adopt such policies. In addition, we found that housing price effects were greater in higher priced housing markets than in lower priced markets… These findings suggest that housing producers did not in general respond to inclusionary requirements by slowing the rate of single family housing construction, but did pass the increase in production costs on to housing consumers. Further, housing producers were better able to pass on the increase in costs in higher priced housing markets than in lower priced housing markets. (pp. 1–2)

Housing in areas with inclusionary zoning was also smaller, with most of the reductions in size occurring in lower-priced housing (Knaap, Bento and Lowe, 2008).

Another assessment of inclusionary zoning in San Francisco and Boston using regression analyses "suggest[s] that IZ does contribute to increased sales prices of existing single-family homes during rising regional markets, and may depress local housing prices when regional prices decline" (Schuetz, Meltzer & Been, 2011, p. 321). In its interim guidance on the PAUP, the Independent Hearings Panel expressed concerns "that the proposed form of retained affordable housing could further reduce housing affordability by increasing the cost of the general supply of housing" (Auckland Unitary Plan Independent Hearings Panel, 2015b, p. 2).

Such results are not surprising, in that some types of inclusionary housing policies effectively require developers to produce lower-price units than they would have without regulation. To maintain their expected profit margins, developers may seek to increase the price of non-regulated dwellings, perhaps by improving their specifications.

Administrative costs

Depending on their form, inclusionary housing policies can create high administrative costs. Examples include policies that require plan-mandated affordable housing to be provided to specified residents (eg, those below certain incomes) or organisations (eg, registered social housing providers) or that require ongoing monitoring to ensure that the housing is not sold on to the general market. High administrative costs can lead to poor enforcement. Research into England's Section 106 agreements found that in many cases

> …the local authority and RSL [registered social landlord] staff were unable to answer the question of how many units had been delivered on a site and whether this was consistent with S106 agreement. There are few systems in place that actually record the details of the S106 and then monitor with reference to the original agreement. (Monk et al., 2006, p. 36)

F7.4 Depending on their design and the state of the housing market, inclusionary housing policies can also increase the price of non-targeted dwellings and involve significant administrative costs.

The need to tackle sources, not symptoms

Some commentators have characterised inclusionary housing policies as a form of compensation for the negative impacts of the planning system:

> [P]lanning gain is a way of compensating the poor who disproportionately bear the costs of planning. Planning limits the supply of new homes, especially in tightly constrained areas, but does not limit demand…As a consequence, people go 'unhoused', occupy smaller homes or commute longer distances from areas with less stringent planning constraints. In the longer run the planning system adjusts to housing shortages by releasing more land, but in the short run, the poor, in effect, pay for the wider benefits society enjoys from its planning policies, while landowners of the limited development land that is released enjoy substantial windfall profits. (Crook & Monk, 2011, p. 1012)

The negative impacts of planning – in particular the council's urban containment policy – appear to have been a key motivation for introducing affordable housing policies in Queenstown (*Infinity Investment Group Holdings Ltd et al. v Queenstown Lakes District Council*, 2010).

But if the planning system and its impacts on the supply of land for housing are the proximate causes of declining affordability, then the logical response is to ease the planning system's restrictiveness rather than tackling a symptom of that restrictiveness through inclusionary housing policies. This approach was recommended by the Commission in the *Housing affordability* inquiry (2012a), and the Commission continues to see this as the priority. Elsewhere in this report, the Commission has recommended a number of changes to land use rules that would make it easier to build smaller and lower-cost housing, including removing apartment balcony requirements, minimum parking obligations and density limits, and only introducing height limits where there is a net benefit (Chapter 5). The Commission also recommends changes to the overall planning framework, which would strengthen incentives on local authorities to provide enough development capacity to meet demand. (Chapters 11 and 12) The risk with inclusionary housing policies is that they can draw the focus away from ensuring that the overall planning system is as efficient and enabling as possible.

Another important barrier to the provision of affordable housing is the high-cost nature of the building industry. This cost structure is driven by a number of factors, many of which the Commission explored in its *Housing affordability* inquiry. These include high input costs, a fragmented supply chain, the predominance of small firms and a lack of large-sized land blocks (NZPC, 2012a, pp. 170–95). Any strategy to increase the supply of lower-cost housing will also need to lean against the factors contributing to high building costs.

Some of these factors are more amenable to government intervention than others. One area where government intervention could be beneficial is establishing, or supporting, institutions that can:

- amalgamate land parcels into sites that are sizeable enough to make large-scale development economic;
- attract developers with the experience and systems to innovate and bring costs down;
- coordinate the provision of infrastructure; and
- remove or ease planning barriers to the provision of innovative and lower-cost housing.

One type of institution that can deliver such benefits is an urban development authority (UDA). The Commission discusses UDAs in more detail in Chapter 12.

F7.5 Inclusionary housing policies target the symptoms, not the causes, of a declining supply of lower-cost housing. They do not offset planning controls that limit the supply of land or the other factors that contribute to the high-cost nature of New Zealand's building industry, such as fragmented land holdings that mean developments cannot capture significant economies of scale.

R7.1 Rather than pursuing inclusionary housing policies, the Government and councils should promote a greater supply of lower-cost housing by:

- removing planning controls that limit the supply of development capacity and housing; and
- supporting or establishing institutions that lower barriers to the supply of lower-cost housing (eg, urban development authorities).

7.3 Using public sector land for lower-cost housing

An alternative to encouraging the supply of lower-cost housing through planning regulation is for governments to dedicate their own land holdings for this purpose. The contribution of government land is a core input to strategies in other countries aimed at encouraging the provision of more lower-cost housing, and is particularly important in higher-cost areas and markets with high levels of development activity (Gurran et al., 2008).

Releasing and using public sector land has been a focus of housing strategies in a number of jurisdictions.

- The Mayor of London's recent housing strategy notes:

  > It is estimated that 40 per cent of brownfield land suitable for development is in the ownership of the public sector, including both central and local government. The Mayor is committed to accelerating the disposal of surplus public sector landholdings to boost the development of homes, and the GLA [Greater London Authority] has put in place a number of mechanisms to enable this. (Mayor of London, 2014, p. 77)

- Similarly, New York City is planning to conduct a "comprehensive survey of all vacant sites in the City", with the intention of encouraging "affordable housing and mixed-use development on underused sites within our own portfolio, as well as in partnership with the State, public authorities, not-for-profit institutions, faith-based organizations, and private owners who have land that could be deployed for affordable housing" (City of New York, 2014, p. 9).

- Turkey's housing agency TOKI assembles land packages by acquiring land from other government agencies, and enters into partnerships with private sector developers. Private developers build housing for the wider market and split the revenue earned with TOKI, which uses the funds to acquire more land and build affordable houses. Between 2003 and 2013, this strategy released more than 160 km² of public land, leading to the development of more than 500 000 units (McKinsey Global Institute, 2014, p. 55).

- In 2010, Australian state and federal governments undertook an audit of surplus government land, which identified 1 150 hectares suitable for "housing and community development over the subsequent one to three years" (Housing Supply and Affordability Reform Working Party, 2012, p. 23). The Australian federal Department of Finance currently maintains a register on its website of surplus Commonwealth land potentially suitable for housing and community outcomes, although the National Commission of Audit noted that this list "is not a full list of surplus Commonwealth land holdings" (2014, p. 225). Making surplus land available for housing is also part of the New South Wales Government's *Plan for growing Sydney* (New South Wales Government, 2014, p. 67).

How much public land is available for housing?

Information about public land holdings across New Zealand cities, and their availability for residential use, is not readily available. A survey of total public land holdings in Auckland conducted for the Ministry of Business, Innovation and Employment (MBIE) found that central and local government agencies hold more than 43 000 parcels of land in Auckland, totalling 70 571 hectares (Table 7.2).

Table 7.2 Publicly owned land in Auckland

Organisation/entity	Number of land parcels	Sum of area (hectares)
Central government		
Housing New Zealand Corporation	21 265	1 557.81
Reserves and other gazetted land	5 845	12 546.46
Her Majesty the Queen[1]	3 519	4 393.87
Schools	1 253	922.05
State-owned enterprises and Crown agencies	288	651.34
District Health Boards	64	70.68
Tertiary education institutions	51	152.15
Local government		
Auckland Council	10 737	27 197.27
Watercare Services	329	2 901.56
Auckland Waterfront Development	168	34.00
Ports of Auckland	113	133.43
Auckland Transport	46	9.96
Total	**43 678**	**70 570.58**

Source: MBIE, personal communication.

Note:

1. 'Her Majesty the Queen' includes land held in the conservation estate, prisons and some education land.

Data from the Office of the Valuer-General suggest that significant amounts of this publicly owned land in Auckland and some land in Wellington is suitable for residential development:

- Table 7.3 shows the amount of publicly-owned land in these two cities that has been classified by valuers as residential, bare, unimproved and large enough that it "is likely to be subdivided into dwelling house sites" (LINZ, 2010, p.64).
- Table 7.4 shows the publicly-owned residential land in the two cities that is "vacant or substantially unimproved land [and] on which it is likely a single dwelling house will be built" (ibid).

Similarly, Auckland Council's previous property arm (Auckland Council Property Limited) identified that "in sites on its 'books'…approximately 2,500 houses can realistically be built over a period of years by development partners" (ACPL, 2014, p. 4).

Table 7.3 Publicly owned bare land in Auckland and Wellington (RB classification)

	Auckland		Wellington	
	Total land area (hectares)	Total land value	Total land area (hectares)	Total land value
Core Crown	50.42	$103.0m	3.36	$1.0m
Local authority	51.89	$58.5m	21.38	$3.1m
Non-core Crown	55.05	$86.8m	0	
Total	**157.36**	**$248.3m**	**24.74**	**$4.1m**

Table 7.4 Publicly-owned vacant land in Auckland and Wellington (RV[1] classification)

	Auckland		Wellington	
	Total land area (hectares)	Total land value	Total land area (hectares)	Total land value
Core Crown[1]	20.79	$113.0m	1.76	$8.95m
Local authority	33.12	$105.0m	11.33	$14.70m
Non-core Crown[1]	9.22	$35.9m	0.16	$0.86m
Total	**63.13**	**$253.9m**	**13.25**	**$24.51m**

Source: Productivity Commission analysis of Valuer-General data.

Note:

1. Land value for Auckland is from 2014. Land value for Wellington is from 2012. 'Core Crown' includes government departments, 'non-core Crown' includes Crown entities and state-owned enterprises.

Under the Housing Accord signed between the Government and Christchurch City Council, both parties agreed to identify "surplus Crown and Council owned land that may be appropriate for residential development" (CCC / New Zealand Government, 2014, p. 5).

Beyond Auckland and Christchurch, as far as the Commission could determine, neither central nor local government appear to have assessed public land holdings suitable for residential development. What information is publicly available on government-owned land designated for disposal provides little guidance on its size, zoning or servicing. MBIE, in conjunction with relevant local authorities, should make an inventory of public land holdings in all high-growth cities to clearly identify surplus sites that could be used for housing.

Any assessment of 'surplus' land would have to take into account the need to hold land for Treaty of Waitangi settlements, any obligations established by existing settlements to offer a right of first refusal, and any obligations under the Public Works Act 1981 (PWA) to first offer land back to the original owners before it can be sold on the open market. Recent controversy, including possible court action, over plans to develop Crown land in Auckland for housing has highlighted the importance of clear and effective consultation with iwi and other stakeholders prior to any decisions to release public land.

The public sector currently has processes to meet the government's Treaty and PWA obligations, such as the Office of Treaty Settlements' Land and Property Protection Mechanism, and internal departmental systems for the disposal of land. The government has also established the Crown Property Centre of Expertise within Land Information New Zealand to assist agencies with land disposal projects.

F7.6 With the exception of Auckland and Christchurch, neither central nor local government appears to have undertaken a stocktake of public land holdings in high-growth cities to identify land that could be released for residential development.

R7.2 The Ministry of Business, Innovation and Employment, in conjunction with relevant councils, should make an inventory of public land holdings in all high-growth cities to identify surplus sites that could be used for housing.

The Government has recently announced plans to develop housing on more than 400 hectares of Crown land in Auckland. This is a positive step, and should help to meet some of the city's housing shortfall, especially if building can take place at higher densities than in the past. Some early steps in this direction have also taken place in Christchurch (Box 7.1). Opportunities may exist to use public land holdings in other cities to help fill the shortfall of new, lower-priced housing.

Box 7.1 **Use of public land in Christchurch to achieve affordable housing goals**

Welles Street and Colombo Street

In 2008 the Christchurch City Council bought properties at Welles Street and Colombo Street because the sites were considered necessary to realise the Council's vision for the inner city (van Beynan, 2010).

In the 2014 Housing Accord, the Council agreed to make the properties available at fair market value with deferred payment; and the Government agreed to establish a $75 million Christchurch Housing Accord Fund to develop these and other suitable sites that may be identified in future.

Following a tender process, the Government has contracted with Fletcher Living to build 191 new dwellings on the properties over the next two years, including apartments and terraced houses. Of these homes, 38 will cost less than $450 000 – the local threshold for the Government's KiwiSaver HomeStart subsidy scheme. As an incentive, payment for the land has been deferred until the development is complete.

Awatea

The Government has contracted Fletcher Building to build 237 standalone and terraced homes at Awatea/Carrs Road. The site is Crown-owned and the properties will remain in Crown ownership until construction is completed. Of the homes, 89 will have a purchase price of less than $400 000; 50 will involve shared-equity ownership with the New Zealand Housing Foundation, a not-for-profit charitable housing trust.

The process of contracting the development of surplus public land for housing could be managed centrally, through a dedicated unit within a public service department (such as MBIE), or through joint ventures with local government or private landowners. A number of local authorities signalled a willingness through their submissions to partner with central government in developing publicly held land (subs. DR95, DR102 & DR118). Auckland Council has recently established a UDA (Panuku Development Auckland) to regenerate brownfield sites, putting "underutilised [Council-owned] land and new infrastructure alongside another partners' land (Housing Corp, iwi, private developer) to give enough scale" (Town, 2014). The Government could look to contribute land to Panuku Development Auckland projects that lead to the supply of more lower-cost housing (see Chapter 12).

R7.3 Once an inventory of public land holdings is complete, the Government should seek opportunities to partner with local authorities and private landowners to achieve scale sites for lower-cost housing development.

Ensuring a continued supply of public land

Given the contribution public land can make to strategies to increase the supply of lower-priced housing, it is important that stocks of public land can be replenished. This matters for two reasons. First, without the ability to acquire more land, a strategy focused on releasing public land will be a "one-shot" solution, leaving future governments and councils with fewer tools. Second, the current stocks of spare public land were not acquired with housing objectives in mind and are likely to be arbitrarily distributed. There may be large amounts of public land in one city facing affordability challenges, and little in another. The ability of central or local governments to address housing affordability issues should not be determined by historical land purchase decisions.

This has a number of policy implications. For example, local authorities establishing, or considering the establishment of, UDAs should:

- allow the organisations to trade in land;
- permit the UDAs to retain and recycle the receipts from land sales; and

- ensure that the institutions have the tools, such as compulsory acquisition powers, necessary to amalgamate land and create new large-scale sites.

This last point is likely to require assistance from central government. Chapter 12 discusses compulsory acquisition powers in more detail.

7.4 Conclusion

The relative decline in the production of new, lower-cost dwellings is a source of concern and has led many parties to call for stronger tools to retain and encourage 'affordable' housing. One response is 'inclusionary housing' policies, which are used to some degree in the United States, the United Kingdom and Australia but are not very prominent in New Zealand. Such policies involve requirements or incentives to provide a certain number or proportion of lower-cost units as part of a development. The Commission does not see a strong case for the expansion of such policies, as they tend to have a limited impact on the overall supply of lower-cost housing and can have a number of undesirable effects, such as uncertainty and delays for developers, upward pressure on the prices of other housing, and high enforcement costs.

Inclusionary housing policies tackle the symptoms, rather than the causes, of a reduced supply of lower-priced housing. Restrictive planning controls and the high-cost nature of the building industry are two key sources of this reduced supply. Rather than pursuing inclusionary housing policies, the government and local authorities should focus on making the planning system work better, easing planning controls in District Plans, and supporting or establishing institutions that remove barriers to the supply of lower-cost housing, such as the lack of land parcels that are sizeable enough to make large-scale development economic.

One important contribution that governments can provide to support the development of lower-cost housing is land. Central and local governments in New Zealand are significant landowners. They should inventory their stocks to identify suitable surplus sites, seek opportunities to partner with others to achieve scale sites for lower-cost housing development, and ensure that they have processes and institutions in place to replenish stocks of public land. Early steps have been taken in Auckland and Christchurch to use surplus public land to promote more lower-cost housing, and similar opportunities in other high-growth areas are likely.

8 Planning and delivering infrastructure

Key points

- Infrastructure is a key part of the housing supply chain and accounts for a significant share of the total cost of new dwellings. Infrastructure has the potential to be a bottleneck in the supply of land for housing if its delivery is poorly timed or poorly located.
- Due to the large upfront cost of new infrastructure, councils tightly control the supply of infrastructure needed to support urban growth. This is a prudent approach from the perspective of managing costs and risks. But if councils take an overly restrictive approach to infrastructure supply, they will constrain the supply of shovel-ready land and exacerbate housing affordability issues.
- A key issue is how councils can optimise the provision of shovel-ready land to create some competitive tension in the market, while not over-capitalising in the construction of costly infrastructure. More widespread use of the following good practices can assist councils in meeting this challenge.
  - Use of development agreements that enable developers to take responsibility for providing trunk infrastructure. The requirement for councils to consider all requests to enter into development agreements should also apply to council controlled organisations.
  - Use of staged construction and other approaches that lower upfront costs and allow services to be scaled up as demand increases.
  - Councils should work backwards through the land supply chain to identify measures that need to be taken, including the provision of infrastructure, to ensure no impediments will prevent a responsive supply of dwellings. As part of this process, councils should publish information about land availability and its readiness for building.
- Improving the supply of infrastructure for housing is not just about rolling out new infrastructure. Effective use of existing assets is also an important part of the equation. Councils should identify areas that have spare infrastructure capacity, and lift any planning restrictions that unnecessarily prevent intensification from occurring in these areas.
- Robust information about the current use, location and condition of existing assets is a pre-requisite for the effective planning, funding and delivery of urban infrastructure. Councils should prioritise the development of up-to-date asset management information systems and ensure that the information from these systems is integrated into decision-making processes.
- User charges, such as volumetric water pricing and road tolling, can increase the number of dwellings that existing infrastructure assets can support. Councils should make more use of these charges, and the Government should remove blockages to their use by removing legislative bans on user charges for roads, and allowing councils to introduce volumetric charges for wastewater.
- Infrastructure engineering standards can be a source of tension between councils and developers. Standards should be evidence-based, and decisions to modify standards should avoid disrupting developments that are already in progress. There is a case for greater consistency of infrastructure standards across regions.
- Infrastructure constructed by and managed by councils sits alongside infrastructure constructed by private developers and private utility companies. Council processes that seek early engagement with the development community and private utility companies are a leading practice.

8.1 Introduction

One of the main challenges associated with land supply for housing is planning and delivering an efficient supply of infrastructure to support urban growth. Councils can zone a vast supply of land for residential development, but unless that land is serviced with appropriate infrastructure it does nothing to meaningfully increase the supply of land for housing. Tauranga City Council (TCC) notes that "there is no point in just increasing the amount of land available for housing development as this will not achieve housing affordability objectives unless … land can actually be developed – i.e. transport and other infrastructure services are available" (sub. 47, p. 7).

Opportunities to improve the supply of infrastructure to support urban growth are examined in the following three chapters.

- This chapter examines the processes by which councils plan and deliver infrastructure to support urban growth. It begins by setting out the role that infrastructure plays in the housing supply chain and the typical infrastructure requirements needed to support urban growth. The chapter then discusses some of the challenges that councils face in delivering infrastructure to support growth, and recommends measures to avoid infrastructure becoming a bottleneck in the supply of new dwellings. The chapter also examines how better management of existing assets, including the introduction of user charges, can enable existing infrastructure to support growth. The chapter concludes by examining three challenges relating to infrastructure construction: the use of designations, infrastructure standards, and processes to engage with private developers and private utility companies regarding growth-related infrastructure.
- *Chapter 9* examines how growth-related infrastructure is paid for. It examines how councils use debt to finance infrastructure investments, and the cost-recovery tools that councils use. A key message in this chapter is the importance of councils recovering the full cost of growth-related infrastructure from those who undertake, or benefit from, development. Proper cost recovery helps to provide for a more efficient allocation of land and infrastructure, and removes one barrier which might dis-incentivise councils and communities from supporting growth. The chapter considers the range of tools that councils can use to recover infrastructure costs, particularly development contributions and targeted rates, and also considers whether additional tools are needed.
- *Chapter 10* takes a more in-depth look at the governance arrangements for two types of infrastructure that are critical components of an effective supply of land for housing: transport and water infrastructure. The chapter examines opportunities to improve the coordination among the different actors involved in providing transport infrastructure, including the significant role played by central government. The chapter identifies some major shortcomings in the governance arrangements for water, including some specific issues relating to the arrangements for Auckland's water provider, Watercare.

8.2 The role of infrastructure in land supply and dwelling cost

The 2011 National Infrastructure Plan defines infrastructure as "the fixed, long-lived structures that facilitate the production of goods and services and underpin many aspects of quality of life" (National Infrastructure Unit, 2011, p. 1). The productivity of New Zealand's main urban areas is dependent on effective infrastructure systems:

> … cities would be inconceivable without infrastructure systems. Streets, bridges, harbour facilities, transit systems, water and sewer systems … systems of electrical power generation and distribution, and communications systems are what make safe, sanitary, and productive urban living possible. (Donaghy, 2011, p. 81)

What role does infrastructure play in housing supply?

Infrastructure has the potential to be a significant bottleneck in the supply of housing if its delivery is poorly timed, or poorly located. Local Government New Zealand (LGNZ) suggests that the availability of infrastructure can act as a limit to urban growth:

> In essence, the availability/future provision of infrastructure is a de facto urban limit … ultimately, the land is not 'shovel ready' until main trunk infrastructure has been extended to a point at which it becomes economical for a developer to meet the cost of connecting. (sub. 54, p. 9)

On the other hand, infrastructure that is poorly located or delivered too early will add unnecessary costs. The fact that infrastructure is such a critical part of the land supply chain heightens the importance of effectively planning and timing its delivery.

Infrastructure to support residential growth

Accommodating residential growth requires:

- transport – highways, local roads, footpaths and cycleways, and public transport;
- water – drinking water supply (also referred to as 'potable water'), collection and treatment of wastewater, and removal of stormwater (collectively referred to as '3 waters infrastructure');
- energy – electricity and natural gas transmission and distribution;
- telecommunications – fixed line, mobile coverage and internet; and
- social and community infrastructure – such as public recreation space and libraries.

Most types of infrastructure can be grouped into two categories: trunk infrastructure and local infrastructure. Trunk infrastructure refers to assets that serve a large number of households, such as trunk water lines or urban rail services. Local infrastructure relates to the requirements that are specific to a subdivision or dwelling, such as individual connections to trunk water. For example, a new subdivision will generally require construction of roads within the subdivision that will be used primarily by residents living within the subdivision. These roads will link to existing connecting roads that are shared with a wider range of users.

What are the infrastructure costs associated with new dwellings?

The infrastructure costs associated with new dwellings can be grouped in three categories: the cost of constructing local infrastructure; charges levied to recover the costs of extending or increasing the capacity of trunk infrastructure; and connection charges for privately provided infrastructure such as power and telecommunications.

Local infrastructure construction costs – Local infrastructure (site-specific or within a subdivision) is typically constructed and funded by the developer. The construction costs for local infrastructure are very site-specific. They also vary depending on the engineering standards set by the local council (use of infrastructure standards and their variability is discussed in section 0). For development in the Wairakei Urban Growth Area (located in Papamoa East, Tauranga), the local infrastructure costs (including section earthworks and excluding GST) are estimated at $44 000 for each section (Tauranga City Council, 2010).

Recovery of trunk infrastructure costs – Extensions to trunk infrastructure that are required to support urban growth are usually constructed by the council (in some cases developers will construct this infrastructure where a development agreement has been reached). As TCC notes, extending infrastructure networks to accommodate growth can be very costly:

> TCC has recently rezoned over 300ha of land for residential, industrial and commercial development in Papamoa East… Putting aside the infrastructure costs built to accommodate growth in the whole city that partly relate to this new area like water and wastewater treatment plants, the capital expenditure that TCC will incur to specifically service this new growth area … is estimated to be approximately $114m. (TCC, sub. 47, pp. 15–16)

The Centre for International Economics (2015) recently conducted an assessment of the infrastructure costs incurred by Auckland Council (including council controlled organisations) associated with 12 current or recently completed developments in a variety of locations within the Auckland area. Costs (for parks, transport and three waters infrastructure) varied significantly between the different developments, ranging from about $25 000 a dwelling to just over $50 000 a dwelling (excluding GST) (Figure 8.1).

Costs associated with new or extended trunk infrastructure are typically recovered at least in part through development contributions (a type of charge that councils levy from developers). Development contributions vary markedly, but in high-growth areas they are often between $20 000 and $30 000 for each dwelling. The use of development contributions is examined in detail in Chapter 9.

Connection charges for private infrastructure – New dwellings will require connections to private infrastructure – particularly power and telecommunications. The private utilities companies that provide these services will typically charge a fee to connect to these services. For example, Vector notes that "[s]ingle residential electricity connections are individually designed and quoted and pay the incremental cost of connection (on average around $2 500 per connection)… Larger more complex jobs are charged using an incremental profitability test comparing incremental revenues with incremental costs" (sub. 11, pp. 4–5). Under its contract with Crown Fibre Holdings, Chorus charges a connection fee of $900 (excluding GST) for fibre reticulation for each lot for developments of four lots or more (Chorus, 2015).

Total infrastructure costs for new dwellings – Each infrastructure cost figure set out above will vary depending on the development location and the characteristics of the dwelling. Therefore it is not possible to draw a firm conclusion from these figures about a 'typical' infrastructure cost. With this caveat in mind, total infrastructure costs are likely to be in the vicinity of $80 000 (including GST) for each dwelling – a significant share of the total cost of most new dwellings. This estimate does not include costs associated with increased demand for community infrastructure such as libraries.

F8.1 Infrastructure accounts for a significant share of the cost of new dwellings. Costs are location-specific and consist primarily of costs incurred by the developer in constructing on-site infrastructure, development contributions paid by the developer to councils, and connection fees for private utilities.

Do infrastructure costs vary depending on the type of development?

Total infrastructure costs associated with new dwellings are highly variable. Costs will vary depending on a range of factors, including a dwelling's location, its proximity to existing infrastructure assets, and the type of dwelling. Many inquiry participants commented on whether there is a significant variance in infrastructure costs between higher density or infill housing and greenfield developments. Most suggested that infill housing and higher-density housing tend to be less costly to service, provided that the existing infrastructure has spare capacity. But infrastructure costs can become very expensive if retro-fitting is required because existing assets have reached capacity:

> Where there is existing infrastructure capacity and available developable land, as is the case in some of our rural towns (Ngaruawahia and Huntly), it is certainly less costly to accommodate new infill development. However in some towns and villages (Pokeno and Tuakau for example) current levels of road and three water infrastructure are near to capacity and will require new infrastructure to provide for both additional infill and greenfield development. (Waikato District Council, sub. 12, p. 19)

> Brownfield development usually occurs where there has been previous infrastructure investment and spare capacity exists. It is cheaper to use that capacity in preference to providing new infrastructure for greenfields areas. For transport in particular, it is more expensive to provide public transport services where they are required for greenfield development in areas not already covered. Greenfields developments are usually lower density and thus less conducive to public transport viability and add to its cost. (Auckland Transport, sub. 68, p. 7)

> Brownfields or infill development can often be accommodated by the spare capacity within existing infrastructure, requiring no or little additional investment until that spare capacity is exhausted. (Auckland Council, sub. 71, p. 10)

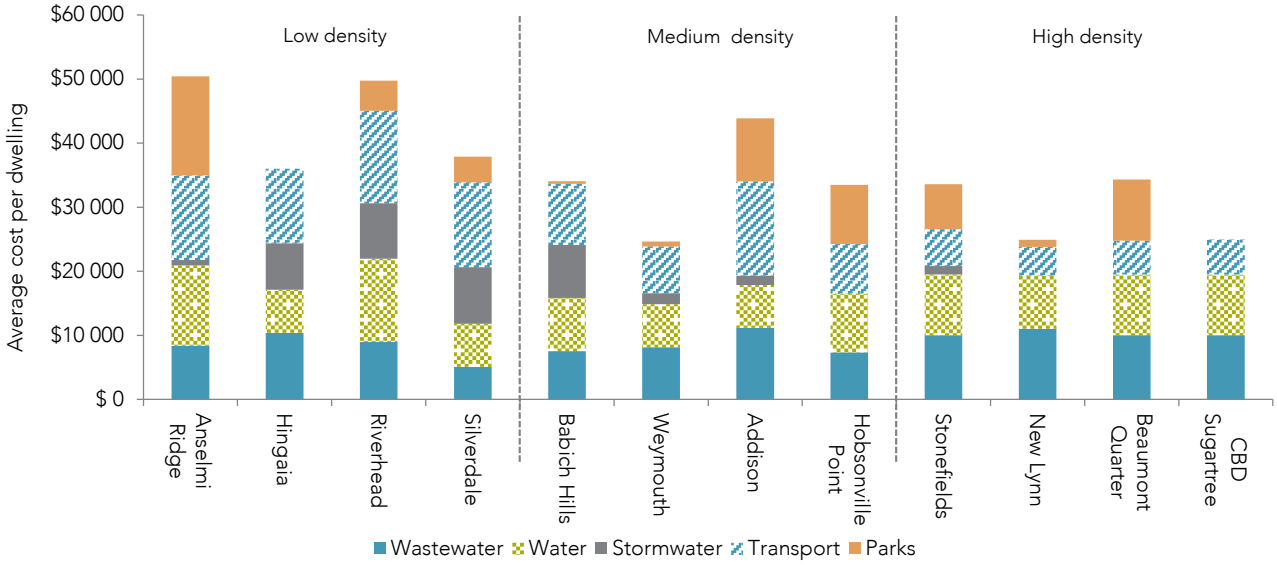
> Infill development can be more affordable to service in the short-term, but infrastructure for infill/intensification can be extremely expensive once capacity has been reached. (Hamilton City Council, sub. 70, p. 10)

Some submissions suggested that there is a tendency to overstate the potential infrastructure savings associated with higher-density development:

> Councils tend to understate brownfields infrastructure costs and overstate greenfields costs … In cases where intensification necessitates over time the replacement of local infrastructure and the upgrading of main infrastructure the cost is considerably greater than the cost of greenfields development. (Richard Burton, sub. 28, p. 9)
>
> Intensification, and the addition of infrastructure capacity for it, involves extremely high costs, of access, disruption, land acquisition, demolitions of existing structures, higher capital intensity per unit of floor space serviced, and so on. (Phil Hayward, sub. 41, p. 30)

The Urban Taskforce examined the relationship between urban form and infrastructure costs. It concluded that "higher levels of urban density, in general, lead to cities that are cheaper to build and run" (2009, p. 8). However, it also noted that costs are very site-specific and depend on the nature of existing infrastructure and whether a development requires a small additional investment in that infrastructure, or a complete overhaul. This conclusion is supported by recently published research into the cost of infrastructure in Auckland (Centre for International Economics, 2015) which shows that, on average, higher-density developments incur lower servicing costs (Figure 8.1). However the costs between sites of similar density vary considerably.

Figure 8.1 Infrastructure costs in Auckland by development density



Source: Centre for International Economics, 2015.

There is a growing volume of international studies that examine the relationship between the nature of the built environment and the cost of infrastructure and other public services. Results within this research are conflicting; yet, on balance the existing research favours the hypothesis that on average, low-density development is more expensive to support (Box 8.1).

Box 8.1 **International evidence on infrastructure costs and urban form**

The OECD (2012) finds that a compact city can reduce the cost of urban infrastructure:

> The segregated land use associated with low density and urban sprawl tends to require a relatively higher level of infrastructure – roads, water and sewer systems, schools and privately owned utility systems – than would be needed for more compact development… In contrast a compact city can increase the efficiency of infrastructure investment and reduce the cost of maintenance, particularly for line systems such as transport, energy and water supply, and waste disposal. (OECD, 2012, pp. 63–64)

Carruthers and Úlfarsson (2008) examine whether spatially dispersed cities cost more to support, based on local government spending in all 3 075 counties in the United States during the 2002 fiscal year:

> While there is a lot of variation in how the density and the spatial extent of development influence different types of service, other things being equal, sprawl, as a cost factor, nearly always raises per

> capita spending and the effects translate into large dollar values when summed across the entire country. They are also quite large on a case by case basis when capitalised at a conventional long-term lending rate as approximations of opportunity costs. (p. 1816)

Carruthers and Úlfarsson calculate the hypothetical savings that could be achieved if land-use patterns had evolved more densely and note that "the hypothetical savings … are non-trivial enough that some places may wish to identify how to achieve a better connection between financial planning and land use" (2008, p. 1814).

Research examining the cost of providing public services, including infrastructure, in Japanese cities finds the concentration of population within a city reduces the per capita cost of providing the public service (Nakamura & Tahira, 2008).

A review of 'cost of growth studies' conducted for the Canada Mortgage and Housing Corporation drew the following conclusion:

> Studies are close to unanimous in stating that development models that are denser, direct growth close to existing infrastructure and follow contiguous patterns, result in lower capital, operating, maintenance and replacement costs. However, it is very important to stress that they do not agree on the magnitude of these variations. (Dillon Consulting et al., 2005, p. 14)

While most research points toward higher-density land use being less costly to service, some studies have reached the opposite conclusion. For example, Cox and Utt (2004) examined expenditure in the 49 municipalities in the United States with a population of at least one million. Their analysis indicates that the lowest expenditures per capita tend to be in medium- and lower-density municipalities.

Ladd (1992) finds an inverse-U relationship between density and per capita spending. For densities between 0 and 250 people per square mile, costs fall quite steeply with increasing density. However, "beyond the relatively low average density of 250 people per square mile, the costs of providing public services increase with population density" (p. 283). Notwithstanding the problems in measuring density using the people per unit area approach, densities in New Zealand's larger cities are already well in excess of 250 people per square mile.

F8.2 Most inquiry participants suggested that higher-density urban developments are less costly to service with infrastructure, particularly when existing infrastructure assets have not yet reached capacity. International research examining the relationship between urban form and infrastructure costs generally supports this proposition.

8.3 Infrastructure planning processes

New Zealand's local authorities collectively own infrastructure assets valued at $80 billion. Just under half of these assets (by value) are owned by the 10 high-growth councils that are the focus of this inquiry (Statistics New Zealand, 2015). These infrastructure assets have been planned, purchased and built over many decades (Local Government Infrastructure Advisory Group, 2013).

Reflecting the importance and value of local infrastructure, councils are required (under the Local Government Act 2002) (LGA) to undertake a range of infrastructure management, planning and reporting processes. Councils are also required to undertake specific planning for transport infrastructure under the Land Transport Management Act 2003 (LTMA). The infrastructure planning requirements under the LGA and the LTMA are described in Chapter 2.

Councils use these planning documents to set out infrastructure requirements over the short, medium and long term. Councils report that, through these processes, they seek to ensure that infrastructure is delivered effectively to support growth:

> Council is taking a 30-year view of the infrastructure Auckland will need, ensuring we have robust plans for providing the right infrastructure, in the right place, at the right time. (Auckland Council, sub. 71, p. 9)
>
> The Council [is] proactively planning for the future of the city, including using collaborative processes with other agencies, stakeholders, and the community. The Council is currently developing … a 30 year growth management strategy which aligns land use and infrastructure planning and financial and asset management. (Wellington City Council, sub. 21, p. 13)

F8.3 Councils are required to undertake relatively rigorous infrastructure planning processes, a reflection of the fact that councils are asset-intensive organisations.

Despite some recent rebalancing in legislative planning frameworks for infrastructure, councils face challenges in integrating longer-term land use, infrastructure and transport decisions. These challenges are discussed in Chapter 11 and a review of the planning framework is proposed to help resolve them. Local authorities also face shorter-run difficulties in planning and delivering infrastructure. These difficulties are examined in the following sections.

Challenges in planning infrastructure

While councils report that they view population growth in their cities as positive, accommodating growth is a source of significant tension. As discussed in Chapter 4, councils may come under pressure from existing residents who do not share their enthusiasm for growth. Likewise, the costs associated with rolling out infrastructure to support urban growth create another source of tension for high-growth councils.

A consistent message from councils is that to keep these costs in check, the supply of infrastructure must be very carefully managed. Councils generally seek to ensure that development occurs only in specified locations, and that the extent of any extensions in infrastructure is closely matched to the rate at which development is occurring. Submissions from councils and other organisations suggest that sound reasons exist for taking this approach.

- Councils have a limited range of funding sources to cover the capital expenditure associated with investment in new infrastructure (subs. 26, 36, 47 and 57).
- New infrastructure generates operating costs including depreciation as soon as it is constructed. However, there is a lag before it generates any additional revenue from either development contributions or rates. "Investing too early in strategic infrastructure results in an increased exposure to maintenance and operation costs and interest costs while the Council incrementally repays the debt by recouping its growth related costs from subsequent development (development contributions)" (Hamilton City Council, sub. 70, p. 9). TCC makes a similar point, noting that opening numerous areas to development would draw development away from areas where infrastructure investments have already been made. This would result "in compounding interest on existing debt because of slower recovery of development contribution revenue" (sub. 47, p. 17).
- Providing infrastructure in advance of the time that it is required for development opens councils to the risk that development occurs at a slower rate than anticipated (Western Bay of Plenty District Council, sub. 36). This risk is front-of-mind for many councils where development has only recently picked up pace following a period of slower-than-anticipated growth after the Global Financial Crisis.

Councils typically deal with these issues by ensuring that infrastructure is only expanded on a limited number of 'fronts' and by pursuing a 'just in time' approach to delivery (Box 8.2).

Box 8.2 Approaches to the supply of new infrastructure

SmartGrowth

> The Strategy's land release programme has been carefully sequenced to minimise any negative effect of land supply issues in the sub-region, and to avoid having development open on too many fronts. (sub. 27, p. 3)

Hamilton City Council

> … the Council … adopts an approach of putting in new infrastructure on a just-in-time basis and only to the extent that the Council's debt to revenue ratio policy is not breached. (sub. 70, p. 9)
>
> Councils control the supply of strategic 'bulk' infrastructure within the fiscal constraints within which councils operate. This is a prudent approach and ensures councils meet their requirements in terms of Long Term Plan planning. Other types of infrastructure, including local and collector roads, stormwater and wastewater connections, are supplied by the developers. (sub. DR114, p. 8)

Te Tumu Landowners Group

> … Councils are looking to defer infrastructure spending and apply a 'just in time' approach to infrastructure delivery; this however will not likely meet changing market conditions and demand. (sub. 40, p. 13)

Future Proof

> An important consideration is achieving efficiency in infrastructure provision by ensuring capacity is taken up prior to further investment. In addition, while having several development areas open at once provides a wide choice in housing opportunities, this must be balanced against overall affordability and ability to fund. (sub. 39, p. 7)

While the broad approach to providing infrastructure set out above is entirely appropriate from the perspective of prudent financial management, it is less satisfactory if the aim is to foster competitive tensions and downward price pressures in the supply of land for housing. If council provision of trunk infrastructure falls short of demand, then this will have a material impact on the supply and price of land as few alternative infrastructure providers exist (councils essentially exercise a local monopoly on providing trunk infrastructure).

Many inquiry participants raised concerns about landowners drip-feeding sections onto the market to maintain high prices (this issue was discussed in Chapter 4). While the motivations are different, a restrictive approach to infrastructure supply can have similar consequences to land banking. For example:

- restricting development to a limited number of 'fronts' can reduce competition among developers; and
- knowledge that development will be limited to certain locations may reinforce expectations among investors of a scarce supply of land for housing and resulting future capital gains.

In addition, a 'just in time' approach can create other problems. Some infrastructure can be extended incrementally (eg, extensions to the roading network), while other infrastructure can only be added in large chunks (eg, a new water treatment plant). The 'lumpy' nature of these assets means that they can be difficult to accurately match to demand.

A 'just in time' approach can be particularly problematic in situations where housing demand is stronger than anticipated. Te Tumu Landowners Group (sub. 40, p. 15) notes that while the 'just in time' approach provides for prudent debt management, it also "reduces the ability for infrastructure delivery to align with changes in market demand".

F8.4 Councils tightly control the supply of trunk infrastructure to support urban growth. This is a prudent approach from the perspective of managing costs and risks. However, if the supply of infrastructure is too conservative, it can constrain the supply of land for housing. In turn, this can contribute to higher land prices by reinforcing expectations among investors of a scarce supply of serviced land for housing.

8.4 Increasing the responsiveness of infrastructure supply

The following section examines options to improve the supply of infrastructure to support urban growth through:

- developer-led infrastructure;
- staging the supply of new infrastructure;
- maintaining accurate information about the existing supply of infrastructure to support growth; and
- ensuring some flexibility in the timing of infrastructure investment.

Developer-led infrastructure

Several councils have expressed a desire to shift the risk associated with delivery of infrastructure onto the development community. For example, TCC notes that, in an ideal world, councils would offload the risks associated with building lead infrastructure to developers. But, given the small scale of most property developers in New Zealand, few developers are able to manage this risk:

> There are very few large developers that can afford and have balance sheet capacity to step in and build infrastructure in place of a council, especially the high cost lead infrastructure required before development revenues begin to accrue, like trunk water and wastewater pipes and major road connections and extensions. (TCC, sub. 47, p. 16)

TCC also notes that even if developers could afford to take responsibility for lead infrastructure, a need would still exist to ensure coordinated infrastructure services are provided to all development blocks within a catchment area, not just those that the developer owns. "Councils are well placed to take on this role whereas developers are not as they tend to want to minimise competition" (TCC, sub. 47, p. 17).

One option that allows councils to reduce some of the risk associated with the construction of new infrastructure is through the use of development agreements. The 2014 amendments to the LGA clarified the legality of councils entering into development agreements, where a developer provides infrastructure as an alternative to paying all or part of a development contribution. The changes also increase the expectation on councils to consider a request from a developer to enter a development agreement, by requiring a council to provide written notice of its decision regarding a request, and the reasons for the decision.

Several councils provided examples where developer-led infrastructure provision is enabling rapid infrastructure delivery:

> Waikato district has … a rapidly growing area in the North (Pokeno) where infrastructure is being progressed very fast due to the developer taking the lead. (Waikato District Council, sub. 12, p. 19)

> Recent amendments to the Local Government Act 2002 (LGA) have included a detailed process for councils and developers to consider and enter into development agreements. Even prior to these provisions coming into effect, Waipa has agreed and entered into 21 development agreements, 15 of which are ongoing… Due to the success of development agreements in Waipa, it is not considered that there are any particular barriers that unnecessarily limit the uptake of development agreements. (Waipa District Council, sub. DR133, p. 5)

> As most of the greenfield areas in the northern parts of the city areas are owned by 2 landowners, Council is able to enter into legally binding private agreements with the developer to provide growth related infrastructure (roading, 3 waters, and reserves). This can be built and paid for upfront by the developer; or the Council builds it and is reimbursed by the developer. (Wellington City Council, sub. 21, p. 8)

Some inquiry participants from the land development industry raised concerns about development contributions and suggested that contributions exceed the true cost of providing services (for example, see Chapter 9). Development agreements represent one way to by-pass this argument, as they shift responsibility for building infrastructure to developers. Developers may have a stronger incentive to construct infrastructure in the most cost-efficient manner and to adopt innovative construction approaches that lower costs. But there need to be quality controls. While developers are motivated to construct

infrastructure at a standard that purchasers want, little incentive exists to construct infrastructure with long-term maintenance costs in mind, as this responsibility sits with the local authority. Issues relating to infrastructure standards are discussed later in section 8.7.

F8.5 Development agreements enable developers to take responsibility for building trunk infrastructure. This shift has the potential to generate a swifter supply of infrastructure and to encourage innovative approaches to infrastructure construction.

Could development agreements work more effectively?

The Commission received a range of views from inquiry participants regarding the use of developer agreements. While most comments were positive, submissions from councils noted that important factors must be considered before agreements are reached:

> SmartGrowth agrees that there are some instances where developers should and are better placed to build the necessary infrastructure. However… [this] needs to be balanced against the fact that local government can borrow the money to build the infrastructure which is then repaid partly through development contributions. This approach also allows some of the costs to be allocated to the existing community where there are wider benefits from the infrastructure being put in place. There can also be issues around developers delivering lower initial cost schemes which have a shorter life and higher running costs. This produces higher costs to residents overall from increased rates over time. (SmartGrowth, sub. DR106, pp. 8–9)

> Given that Councils have some of the lowest cost of capital available, we would contend that this [lower cost provision] may not necessarily be the case. Our experience is however that such agreements can lead to better collaborative outcomes for the community. (Waimakariri District Council, sub. DR108, p. 8)

> The downside of this approach can be that the significant upfront developments costs can sometimes mean that higher whole-of-life and 'fragmented' infrastructure is provided instead of integrated and lower whole-of-life (but often more expensive) infrastructure (eg reservoirs). This is inefficient and increases servicing and maintenance costs in the medium to long term. (Wellington City Council, sub. 21, p. 39)

Development agreements appear to work most effectively where they are established for relatively small pieces of infrastructure that service a single development area held by one landowner. Western Bay of Plenty District Council (sub. DR104) notes that the ability for development agreements to facilitate a more responsive supply of infrastructure is limited where land holdings are fragmented and several developers are involved. Waikato District Council also noted that development agreements are most effective where development occurs at scale:

> Large land holdings gives more autonomy in progressing capital works whereas the "ma and pa" individual section developments rely on territorial authorities to progress infrastructure. (Waikato District Council, sub. 12, p. 19)

Property Council New Zealand (sub. DR100) supported the use of development agreements, but also raised concerns about their use when the infrastructure services land areas held by more than one owner, suggesting that this can create the risk of freeloading:

> Property Council supports the use of development agreements. They encourage positive relationships between councils and developers allowing the appropriateness of an agreement to be investigated/evaluated early, which in-turn allows demand and causal nexus issues to be negotiated up front for significant projects. There is the risk of freeloading. We believe it is crucial that councils enable early developers to prevent freeloaders from using infrastructure that they have provided until they have made a fair contribution towards its costs: that is, stopping cross-subsidisation. (Property Council New Zealand, sub. DR100, p. 4)

In some cases, councils have attempted to compensate first-movers to recoup infrastructure costs from subsequent upstream landowners, but, as noted by Tasman District Council, this process is not straightforward:

> We are, as Councils should be, open to developer-led servicing although there will always be tensions where the provision of services by developers has benefit beyond the boundary of the land being

> developed. It is understandable that developers seek to recoup the differential cost from either the Council or upstream land owners. For Councils to contribute they either have to have contingency funds (for which rates have been received) or be prepared to incur debt perhaps ahead of what is planned for. The acceptability and success depends on many things including the ability to explain to the public and the auditors! (Tasman District Council, sub. DR96, p. 5)

Is there a role for councils to resolve coordination issues among multiple land-owners?

From a perspective of increasing the responsiveness of land supply in areas of high demand, measures taken by councils to facilitate agreements between different landowners that allow a development agreement to proceed are a good practice. However land holdings are often highly fragmented (Chapter 4) and different landowners will often have very different motivations and levels of enthusiasm to develop land. Facilitating an agreement in such conditions could become time-consuming and costly. Therefore the Commission was not persuaded that councils should be placed under some form of obligation to resolve coordination issues so as to expedite development agreements. In many cases, private parties have better incentives to strike appropriate bargains using private mechanisms such as contracts and mediation.

F8.6 Measures taken by councils to facilitate development agreements involving multiple land-owners can help to increase the responsiveness of infrastructure supply. However, as negotiating between multiple land-owners and developers can be costly and time consuming, councils should not be obliged to facilitate private agreements.

Council controlled organisations and development agreements

The requirement for councils to consider development agreements is set out in section 207 of the LGA 2002. The legislation makes no reference to infrastructure provided by council controlled organisations (CCOs). CCOs are a type of arm's-length entity where a council or councils control more than 50% of voting rights. In some cases, councils have established CCOs that are responsible for delivering water and transport infrastructure (Chapter 10).

The absence of any reference to infrastructure provided by CCOs means that it is unclear whether CCOs such as Watercare are under the same obligation as councils are to consider development agreements. The Commission is not aware of any reasons why the arguments for imposing this obligation on councils should not also apply to CCOs. Statements from one of the developers interviewed by Grimes and Mitchell (2015) suggest that developers may be able to provide infrastructure solutions at a lower cost than Watercare, the CCO responsible for water and wastewater infrastructure in Auckland:

> Watercare behaves in a monopolistic way charging what they like. It's not value for money and we could provide onsite solutions cheaper than their costs particularly with the level of over specification they require on their systems. (p. 59)

Hamilton City Council (sub. DR114), Waimakariri District Council (sub. DR108) and Property Council New Zealand (sub. DR100) supported the recommendation that the obligation to consider development agreements should also apply to CCOs. LGNZ also supported the recommendation, but questioned whether any exemption currently exists:

> LGNZ supports this recommendation; however, we would note that we are not aware of any legal advice suggesting that CCOs are somehow exempt from that requirement. (LGNZ, sub. DR130, p. 13)

Watercare's submission (sub. DR129) does not endorse or reject the suggestion that CCOs should be required to consider development agreements. However, Watercare notes that development agreements have a range of advantages (eg, they provide a mechanism for bringing in private capital into the provision of public infrastructure) and disadvantages (eg, the time required to prepare and finalise the agreements, especially if more than one developer/landowner is involved).

The obligation to consider requests from a developer to enter into development agreements and provide the developer with a written response would not compel Watercare and other CCOs to enter agreements where there are good reasons not to. But a requirement to set out in writing why a development agreement may not proceed would provide clarity and transparency about the reasons for the decision.

R8.1 The Local Government Act 2002 should be amended to ensure that the requirement to consider development agreements that applies to councils also applies to council controlled organisations.

Taking a staged approach to delivering infrastructure

One challenge identified in providing infrastructure is the lumpy nature of assets needed to support urban growth. This can mean that high-growth councils are faced with a choice between incurring the costs associated with providing infrastructure that will be underused for a period of time, or delaying investment and risking a backlog of demand forming.

While it is unlikely that councils will be able to eliminate this issue altogether, certain infrastructure construction approaches may help to ameliorate it. One example is the approach that Selwyn District Council (SDC) has taken to providing wastewater infrastructure over the past 10 years. Its Eastern Selwyn Sewerage Scheme (ESSS) was developed to meet the existing and future needs of the towns of Prebbleton, Lincoln and Rolleston. Investment in the ESSS has unlocked 208 hectares of land to accommodate the district's growing population. Box 8.3 discusses some of the approaches that SDC has used to manage the risks associated with supplying infrastructure in advance of demand.

Box 8.3 **An example of providing infrastructure in advance of demand**

In the early 2000s, the wastewater infrastructure for the main towns in the Selwyn District Council (SDC) area was approaching capacity. Population growth in Rolleston had exceeded expectations and its infrastructure was approaching capacity. The towns of Prebbleton and Lincoln were connected to Christchurch City Council's (CCC) wastewater network (under an agreement between SDC and CCC). However by the early 2000s no further growth could occur in these towns due to a discharge restriction included in the agreement with CCC.

After assessing population growth projections that pointed toward strong growth in the Selwyn District, SDC investigated options for wastewater services to meet current and future needs. This led to plans being made to establish the ESSS.

The ESSS was the most costly infrastructure investment that SDC had made, and there was some apprehension about the financial risks of investing in infrastructure to accommodate future demand. The design of the ESSS sought to mitigate these risks by incorporating existing wastewater infrastructure, minimising capital investment, and through design features that minimised operating costs.

One particular example of this was the use of 'staged' construction. The ESSS required a major redevelopment of an existing wastewater treatment plant. This plant was designed in a way that allowed it to be upgraded over time without compromising ongoing operations or developed in a modular fashion to minimise the impacts of future construction. The initial stage of development was for a treatment process to treat 30 000 person equivalents (PE). Additional modules that enable the plant to process an additional 15 000 PE can be accommodated within the design at a later date. Delaying the additional stages of development until population projections are reached is estimated to generate cost savings of $3 million.

Source: Bishop & Ure, n.d.

The infrastructure requirements needed to accommodate urban growth are generally very site-specific, so the experience of SDC is unlikely to be directly applicable to other growth councils. Yet it does demonstrate that where strong population growth is forecast, it is possible to unlock land supply through investment in new trunk infrastructure.

F8.7 Innovative approaches to infrastructure construction that lower upfront costs and allow services to be scaled up as demand increases can help to overcome the difficulties of investing in infrastructure to support future growth. The staged construction approach used by Selwyn District Council is a good example of this leading practice.

Should councils adopt infrastructure supply targets?

Many local authorities have set some form of target for the supply of land to meet future residential growth. However these targets for land supply are of minimal value if the land in question cannot be built on promptly because it is not serviced with infrastructure.

A good practice is for councils to work backwards through the supply chain and identify any measures that need to be taken, including the provision of infrastructure, to ensure that there are no impediments to a responsive supply of dwellings. This might involve clarifying the supply of land at different levels of construction readiness. Several inquiry participants endorsed this approach:

> The UDS Partnership supports the recommendation around clarity of the readiness of land for housing. This is not to suggest however that councils should ensure all land identified is 'shovel ready'. Based on a robust understanding of anticipated future demand councils should ensure sufficient land is available in each stage along this development pipeline. (Greater Christchurch Urban Development Strategy, sub. DR112, p. 6)

> Environment Canterbury is supportive of this recommendation and of providing good data and information to our communities. (Environment Canterbury, sub. 110, p. 7)

When the Commission met with Christchurch City Council (CCC) in early 2015, CCC provided the Commission with a map of the city showing greenfield land availability and status as at November 2014. This classification of land supply gives an accurate picture of available land and its position in the supply chain (Table 8.1).

Table 8.1 Greenfield land status in Christchurch City

Section status	Available sections (November 2014)
Non-residential zoned land and un-serviced (but with residential zoning and infrastructure planned within the next 10 years)	8 904
Zoned (with infrastructure planned within the next 10 years)	2 900
Zoned and serviced	3 202
Zoned, serviced and consented	5 079
Sections that are currently being built on	925

Source: Figures provided by Christchurch City Council, 2015.

Councils should ensure that up-to-date information about land availability and its readiness for building is published in an accessible format. In some instances, supplying infrastructure to certain areas of land may be impossible or highly impractical (for example due to engineering difficulties). Information that sets out which land areas have infrastructure feasibility issues should also be publicly available.

LGNZ supported greater clarity around the readiness of land for building and noted that "[c]ommon terminology should be encouraged across councils so that apples can be compared with apples" (sub. DR130, p. 11). Watercare also supported councils providing information about the readiness of land for development, and noted the inconsistency in the use of some definitions:

> Watercare also would like to see national guidance on the use of terms that embody requirements for infrastructure servicing such as "unconstrained" land supply. This term typically refers to land that is serviced by bulk infrastructure and is "ready to go". However, there is some debate about whether this means land with infrastructure that is ready now, or whether it also includes infrastructure that is planned and funded but not yet available. In our view, there should be a distinction between the two, particularly

> where there are requirements to ensure that there is a specific number (e.g., seven years) of supply. (Watercare, sub. DR129, p. 8)

During the course of this inquiry, the Commission has often heard conflicting views and opinions about the extent of land availability and the availability of infrastructure to support dwelling supply. This lack of consensus suggests that greater transparency and consistency around reporting of land readiness would be helpful. The Minister for the Environment has announced that the Government will be developing a National Policy Statement (NPS) on urban development that will include a requirement for better provision for growth (Minister for the Environment, 2015). The NPS presents an opportunity to introduce some common terminology and definitions regarding land and infrastructure availability.

R8.2 A National Policy Statement on urban development should introduce common terminology regarding land supply and its readiness for building (eg, not residential zoned; zoned; zoned and serviced; zoned, serviced and consented). Councils should use this terminology to publish clear information about available land and its readiness for building.

Bringing forward the provision of infrastructure

One risk associated with a tightly controlled supply of infrastructure is that demand for new dwellings may be greater than anticipated. In this situation, it is important that councils have some options to bring forward planned infrastructure investment so as to avoid a demand backlog. Equally, it is reasonable for councils to revise and reduce their planned delivery of infrastructure if demand is significantly lower than expected. The role for councils in matching supply of infrastructure with demand is set out by Waimakariri District Council:

> So long as the overall approach being adopted across Council organisations is facilitating growth and thus recognising what is likely to be needed where and when, a tightly controlled approach to actual installation is the only responsible option. Under these conditions with good long-term planning in 30 year infrastructure strategies and 10 year Long-Term Plans, managing the physical provision of infrastructure in response to developers' needs becomes a matter of timing to match demand. (Waimakariri District Council, sub. DR108, p. 7)

TCC represents one council that has brought forward some infrastructure provisions to meet demand. Te Tumu Landowners Group (sub. 40) notes that the delivery of a key district arterial road needed to unlock supply at Papamoa East was brought forward by six years.

Hamilton City Council has a policy that enables the building of infrastructure earlier than planned, provided that developers meet any additional costs:

> Under the Growth Funding Policy, HCC may consider advance funding infrastructure projects in its LTP [Long-Term Plan] provided that it is cost neutral to the community i.e. the developer carries the costs (including interest) until the funding becomes available in the allocated year within the LTP. (sub. 70, p. 10)

Inquiry participants have noted that while this provision is good in theory, most developers do not have the financial capacity to take advantage of this provision. This issue is also acknowledged by Hamilton City Council:

> Generally these agreements work well for smaller infrastructure projects but larger projects can be prohibitively expensive and there are few developers with sufficient access to capital to fund very large infrastructure projects. (sub. 70, p. 10)

While the task of matching the supply of infrastructure to demand is not straightforward, many of the high-growth councils that are the focus of this inquiry suggested that they are able to strike an appropriate balance:

> There is currently approximately 10 years of zoned greenfield residential land supply, most of which is serviced and currently available for development. On top of this, planning processes are underway to rezone two large urban growth areas as well as strategic consideration of long-term development

> capacity for the next 20-50 years. We believe that we have struck the right balance between managing land supply and finances… (TCC, sub. DR102, p. 19)

Ultimately, the responsibility for ensuring that an adequate supply of infrastructure is available to meet the needs of urban population growth rests with councils. Recommendations in Chapter 12 provide a strong incentive for councils to take the necessary steps to ensure that the supply of infrastructure is not constraining development.

8.5 Effective use of existing infrastructure assets

This section sets out the case for making effective use of existing capacity within infrastructure networks. It then examines two pressing challenges:

- establishing effective approaches to infrastructure maintenance and asset management; and
- use of demand management techniques to incentivise more efficient use of existing assets.

Why is effective use of existing infrastructure important for land supply for housing?

While the roll-out of new infrastructure is an important factor in the process of supplying land for housing, it is important to note that councils already own a vast quantity of existing assets. Relative to the costs of maintaining existing assets, and the costs of replacing existing assets or improving their level of service, councils spend relatively little to meet additional demand. For example, across all New Zealand councils, an average of just 19% of capital expenditure is allocated toward meeting additional demand, with the remainder split between investments to replace existing assets and service improvements (DIA, 2012).

If existing assets can be used more efficiently (eg, by avoiding underuse), then councils may be able to accommodate additional growth without the need for costly new investments, while redirecting their capital works programme towards increasing the supply of infrastructure where and when it is needed most. At a global level, McKinsey Global Institute estimates that "boosting asset utilization, optimizing maintenance planning, and expanding the use of demand-management measures can generate savings of up to $400 billion a year" (2013, p. 7).

F8.8 Improving the supply of infrastructure for housing is not just about rolling out new infrastructure. Effective use of existing infrastructure assets is also an important part of the equation.

Increasing land supply by using the existing capacity of infrastructure more effectively

One way that councils can manage the costs associated with infrastructure provision without suppressing the ability of the market to respond to demand is to identify land areas with spare capacity within existing infrastructure networks. Many councils are already identifying areas of existing infrastructure capacity and seeking to encourage development within these areas. For example, Auckland Council notes:

> Council has prioritised rezoning of land for urban development where there is existing capacity and lower infrastructure investment costs. Allowing growth to occur outside these areas will require more infrastructure investment earlier. If no further development occurs in these areas there will be excess capacity and the cost recovery time frames for investment will be longer. Where this growth is not planned it may increase costs for subsequent development. (Auckland Council, sub. 71, p. 9)

Wellington City Council recently discovered that a planned redevelopment in its Central Business District (CBD) could be accommodated entirely with existing infrastructure capacity (Box 8.4).

Box 8.4 **Unlocking supply by taking advantage of excess infrastructure capacity**

Wellington City Council has identified Victoria Street in Wellington's CBD as an area where it would like to see more people living and working in future. The council expects that Victoria Street will accommodate another 1 100 new apartments housing at least 2 500 people along with 37 000m^2 of new commercial space.

The council's preliminary estimates were that the infrastructure costs associated with accommodating this growth could be as much as $20 million. However, more detailed analysis, making use of the council's asset management systems, showed that the planned level of development could be accommodated entirely with existing capacity. This finding has prompted the council to undertake a major project looking at infrastructure use and demand across the city, with a view to optimising use of previous investments.

Source: Haydn Read (Wellington City Council), pers. comm., 2015.

At least two pre-conditions need to be met if councils are to take advantage of existing infrastructure capacity effectively.

- Councils need to have a thorough understanding of their existing infrastructure assets and the demand that they are currently under – this requires good asset management (discussed in more detail below).
- Planning rules need to be sufficiently permissive to allow development to occur in areas where spare capacity exists. Such areas are often established residential suburbs, meaning that the capacity can only be used through some form of infill development, or by replacing existing housing with higher-density housing forms. As discussed in Chapter 5, a number of land use regulations are included in District Plans that constrain the ability of cities to accommodate higher-density dwellings in established suburbs.

Many inquiry participants supported councils taking a more deliberate approach to using spare infrastructure capacity:

> We agree that a priority activity of councils should be to understand and identify zones where infrastructure capacity exists and seek opportunity to optimise investment. (New Zealand Council for Infrastructure Development, sub. DR132, p. 12)

> Environment Canterbury is supportive of this recommendation for local authorities to identify infrastructure capacity that currently exists within urban growth boundaries… (Environment Canterbury, sub. 110, p. 7)

Hamilton City Council (sub. 114) submitted that they already take a targeted approach to identifying intensification areas, supported by infrastructure capacity analysis. And TCC (sub. 102) also agreed that it is sensible to optimise existing infrastructure capacity. Both councils cautioned that infrastructure capacity needs to be considered alongside a range of other matters such as natural hazards, before planning rules are amended to allow densification to occur.

F8.9 Councils can unlock land supply by enabling growth in areas where spare capacity is available within existing infrastructure networks. This leading practice requires councils to establish a good understanding of existing infrastructure capacity along with appropriate planning rules that allow intensification to occur in areas where capacity exists.

Infrastructure maintenance and asset management

Almost all high-growth councils that are the focus of this inquiry report that the challenge associated with providing infrastructure to support urban growth sits alongside the challenge of maintaining and upgrading existing infrastructure. Councils typically spend between 40% and 45% of their operating expenditure on maintaining and renewing these assets (LGNZ, 2015a).

The cost of maintenance and renewals, and the potential for this cost to escalate, is seen as a significant issue for many councils (Local Government Infrastructure Advisory Group, 2013). The New Zealand Institute of Economic Research (NZIER) notes that historical infrastructure investment has occurred in 'waves', and as a result some councils may experience bulges of asset renewals and replacements:

> Long term trends show that there have been two big waves of investment, in 1910-1930 and in 1950-1986. These waves were synchronised across different types of assets. Such investments will 'echo' in the future as they come to the end of their useful lives … Whether because of these echoes or not, capital investment has been historically low relative to population and income in recent decades. This suggests a looming bulge of capital renewals and replacements in coming decades. (NZIER, 2014b, p. i)

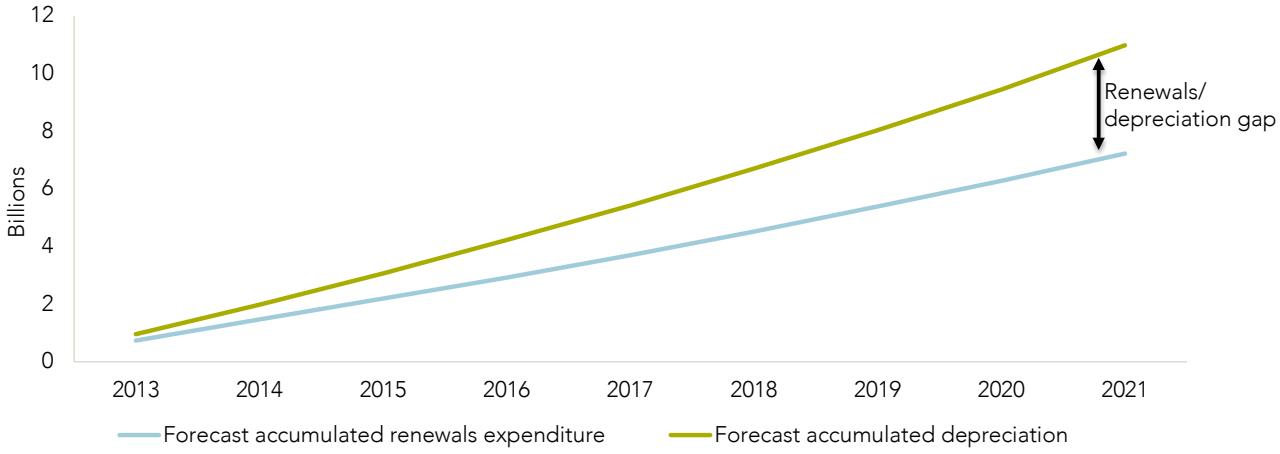
Upcoming costs associated with infrastructure assets are noted in planning documents for several high-growth councils. For example:

> Another factor that is increasingly impacting the operating expenditure is the timing of the replacement of assets. These costs are increasing over the next 10 years and beyond, and relate to the timing of periods of development in the city and the useful lives of the assets. (Wellington City Council, 2012, p. 127)

> Aging water pipes will show a rapid increase in failures as they reach the end of their economic life. It has been identified that a significant percentage of the council pipes are at risk of reaching this point during the next 10 years. (Queenstown Lakes District Council, 2012b, p. 52)

The Office of the Auditor-General (OAG) has cautioned that councils need to better prepare for funding infrastructure renewals. Its review of 2012–2022 Long-Term Plans for all local authorities identifies a 'renewals/depreciation gap' of between $6 billion and $7 billion by 2022. This refers to the difference between planned expenditure on infrastructure renewals, and their forecast depreciation (OAG, 2014a). Figure 8.2 shows the renewals/depreciation gap for the high-growth councils that are the focus of this inquiry.

Figure 8.2 Forecast accumulated renewals expenditure and depreciation, high-growth councils



Source: Productivity Commission using Department of Internal Affairs data.

Note:

1. Christchurch City Council is not included in this figure because it was not required to prepare a Long-Term Plan in 2012.

The OAG considered several factors that could contribute to the gap between renewals and depreciation. For example, the gap could be explained if councils were raising funds during the current 10-year plan timeframe in anticipation of longer-term asset renewal requirements beyond 10 years. Yet little evidence exists to support this. OAG also noted that depreciation could be overestimated or prices associated with asset renewal work could change over time (OAG, 2014a).

LGNZ raised concerns about the suggestion that councils are not providing for future renewals of infrastructure:

> We challenge the view that councils are not providing for future renewals of their underground infrastructure. The OAG report itself, on which this view is based, recommended further analysis. A ten

> year horizon is far too short on which to base such conclusions and the data needs to be disaggregated to separate out Auckland, given that the city is almost 40% of the sample size. (LGNZ, sub. DR130, p. 6)

While Auckland does account for a large share of the sample size, a gap of a similar magnitude is still apparent when Auckland is excluded from the data.

The Institution of Professional Engineers New Zealand (IPENZ) also commented on the funding of infrastructure renewals:

> This [the renewals/depreciation gap] is a contentious issue as predicting remaining useful lives for long life assets is difficult. Also for water assets in particular capital expenditure is often very lumpy (unlike roads) as, for example, the case of a new or significantly upgraded wastewater treatment plant. It often does not make economic sense to cash fund depreciation now for an ill-defined future renewal programme that may not be required for 30-40 years and whose timing is almost always uncertain. (IPENZ, sub. DR126, p. 2)

IPENZ pointed toward the assessment of the National Infrastructure Unit, which has acknowledged that the OAG's analysis "is not conclusive evidence as there are valid concerns with this formula and all parties recognise that there will be reasons why for some local authorities, a ratio of less than 100 percent is appropriate" (National Infrastructure Unit, 2015b, p. 13).

F8.10 Forecasts in the Long-Term Plans of high-growth councils point toward a growing and potentially under-funded requirement for infrastructure renewals. Effectively managing ageing assets and funding the renewal of infrastructure are likely to be major challenges for councils in the coming years.

The challenges associated with managing existing assets, some of which may be approaching the end of their operational life, while also accommodating additional growth, has placed a premium on good asset management planning. New Zealand Asset Management Support defines asset management as the process of "meeting a required level of service, in the most cost effective manner, through the management of assets for present and future customers" (NAMS, n.d.a).

Having formal asset management plans has been recognised as good practice for local governments for some time and the LGA was amended in 2014 to emphasise the importance of asset management planning.

As noted in the *Thirty Year New Zealand Infrastructure Strategy,* effective asset management is not just about managing maintenance and renewals:

> Effective asset management is not just about maintaining assets: it is fundamental to making good decisions about how services are delivered. It should bring together key disciplines beyond engineering, including financial and spatial planning, so that organisations can plan within affordability limits and optimise urban planning. (National Infrastructure Unit, 2015b, p. 47)

Asset management planning can contribute to a more effective land supply process in at least four ways.

Asset management can enable councils to make better use of existing infrastructure

Asset management gives councils a better understanding of existing infrastructure assets and their capacity. As noted earlier, one way that councils can increase land supply without costly investments in new trunk infrastructure is to allow or encourage higher-density housing in areas where existing assets have spare capacity. Accurate information about the condition and capacity of existing assets is a critical pre-requisite for this strategy.

A better understanding of infrastructure assets may also help councils to extend the life of existing assets, or mean that existing assets can service a greater number of dwellings. Many councils have specific policies to try to 'sweat assets' – maximising the use and lifespan of existing assets. A better understanding of how existing assets work may help councils to formulate strategies such as user charges that enable a greater number of residents to use a certain service.

Asset management can facilitate optimal decisions about the location of growth

Asset management may help councils to better understand the infrastructure costs associated with urban development in different geographic locations. This in turn will help councils to plan future expansion zones in the locations that are most efficient from an infrastructure perspective. In addition, more accurate information about the costs of expanding infrastructure networks in different locations will enable councils to increase the accuracy of their development contributions policies and the ability of these policies to drive efficient locational choices.

As discussed above, retro-fitting infrastructure into existing urban areas can in some cases be more expensive than greenfield expansion (eg, NZTA, sub. 73), so such costs must be clearly understood before redevelopment begins.

Asset management enables better decisions about infrastructure standards

Many inquiry participants have raised concerns about whether councils are setting appropriate standards for infrastructure. Councils have been accused for some time of trying to minimise the ongoing maintenance costs of infrastructure by setting 'gold-plated' standards in excess of what is necessary. A well-designed asset management system should give councils accurate information about the upfront costs of different construction techniques, and how different approaches perform over time.

Asset management can improve coordination

Good asset management can also help councils to coordinate decisions about maintaining, upgrading and extending infrastructure among the different actors that deliver urban infrastructure. This knowledge is particularly relevant for maintenance of infrastructure that is co-located, such as water pipes sited underneath roads. If a council knows that both assets require attention at a similar time, then they can coordinate activities and avoid situations such as digging up a freshly re-sealed road. In some situations there might also be scope to coordinate maintenance work with upgrades so as to increase the capacity of existing assets (to enable intensification).

F8.11 Effective asset management can enable councils to make better use of existing assets, facilitate optimal decisions about the location of growth, set well-informed infrastructure standards, and improve the coordination of infrastructure delivery among different providers.

A number of commentators have observed that local government has scope to improve its approach to asset management:

> [L]ocal authorities need to "step up" in managing their infrastructure assets … All those involved with asset services need to talk and work closely – planners, asset managers, finance officers, engineers, and operational departments. Budgeting must be connected to planning, asset management, service management, and risk management. (OAG, 2014a, p. 9)
>
> [P]rofessional asset management practice is a necessary foundation for good quality and cost-effective infrastructure. (Local Government Infrastructure Advisory Group, 2013, p. 5)
>
> We must make better use of our existing assets… Getting more from the current stock of infrastructure is about looking at how assets are used, identifying opportunities for improved management, funding better ways of managing demand and ensuring users' expectations are understood. (National Infrastructure Unit, 2011, p. 2)

The OAG recently reviewed whether local government asset management is giving councils the information they need to effectively provide roading and three waters infrastructure into the future. The review emphasised the importance of formal asset management information systems (AMIS), and found that most councils are not taking full advantage of such systems:

> …few local authorities use the more advanced functions offered by an AMIS. Advanced functions can include maintenance planning, asset performance, deterioration modelling, life-cycle cost optimisation, work management, risk management, and inventory control… using a fuller range of AMIS functionality would help local authorities to manage better quality and more consistent information about their

> assets. Industry experts agreed that using more AMIS functionality is necessary and that there is no need for this to be difficult. (OAG, 2014a, p. 21)

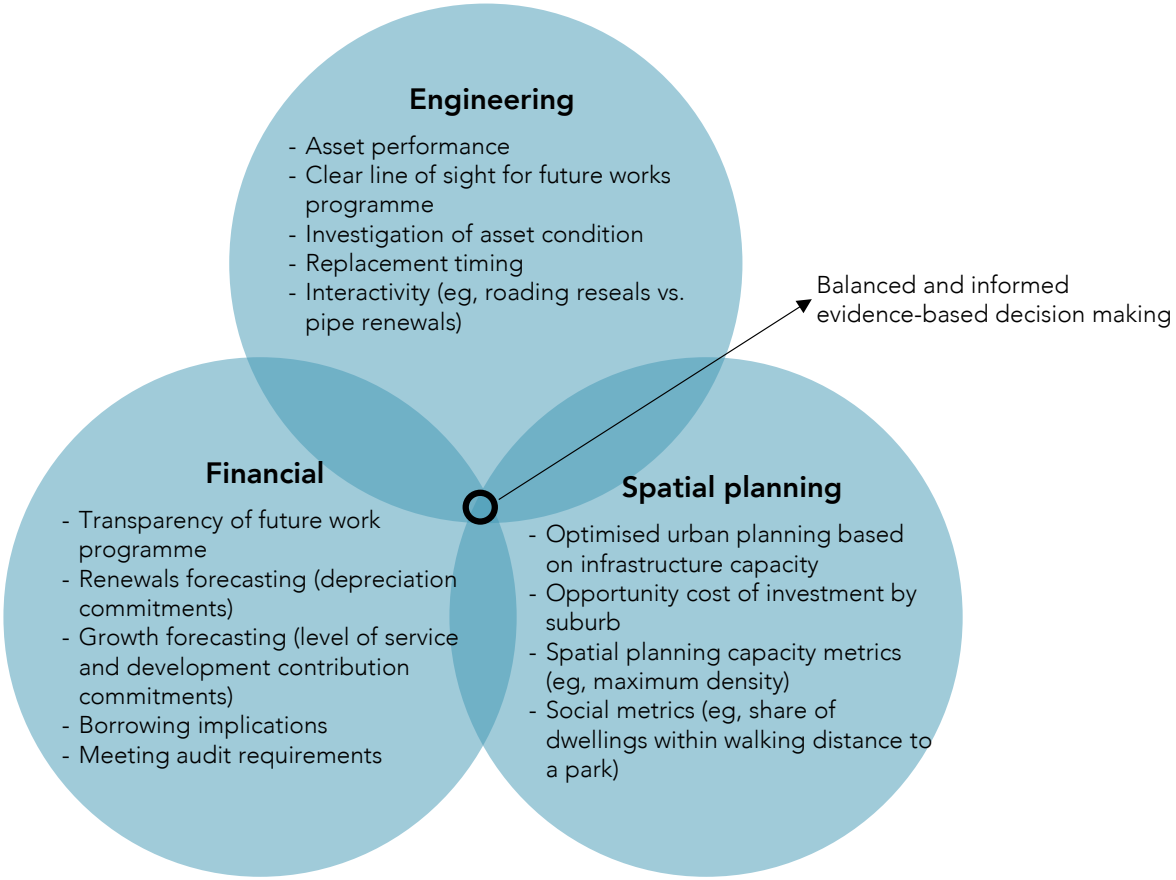
Infrastructure assets owned by the 10 high-growth councils were valued in June 2014 at more than $38.5 billion, and the operational costs for transport, roading, water supply and wastewater were more than $2 billion (Statistics New Zealand, 2015). Given the value of council assets, their maintenance costs, and the value that residents place on well-functioning infrastructure services, it is imperative that councils prioritise investment in asset management systems, and in staff who are capable of ensuring that these systems are used to their full potential.

Wellington City Council has made significant headway in its approach to asset management. The council's asset management team is collecting metadata across their infrastructure assets. This metadata is collated into an AMIS that integrates with the council's other management information systems and models. The council can then undertake extremely granular analysis (eg, the failure rates of individual components that make up a piece of infrastructure) to determine how to most effectively manage its infrastructure.

One example of how this is increasing efficiency is that it has enabled the council to track the rate at which assets deteriorate, alongside the changing costs associated with maintenance and repair. From this data, the council can accurately identify an asset's 'sweet-spot' for replacement – where the annualised cost of capital renewal is less than the yearly cost of repairing and maintaining the asset's functionality (OAG, 2014a, p. 29).

In a broader sense, the asset management approach allows for evidence-based decisions that balance financial, engineering and spatial planning considerations (Figure 8.3).

Figure 8.3 Interdisciplinary benefits from asset management



Source: Adapted from Wellington City Council, 2014.

Wellington City Council's approach to asset management was also endorsed by the New Zealand Council for Infrastructure Development (NZCID):

> We recognise and commend the activities of Wellington City Council in regard to asset management and agree that processes there are leading and exemplary. (NZCID, sub. DR132, p. 12)

F8.12 Wellington City Council's approach to asset management is a leading practice. Benefits of the approach include enabling the council to make more effective use of existing infrastructure, better coordination and timing of maintenance and replacement work, and the ability to take an evidence-based approach to spatial planning.

R8.3 Councils should prioritise the development of up-to-date asset management information systems. This should be supported by recruiting and developing staff with the skills and expertise needed to make effective use of these systems, and ensuring that the information from asset management systems is integrated into decision-making processes.

Does scope exist to better share effective asset management practices?

The OAG's review of management of transport and water assets revealed variability in both the approach to, and effectiveness of, current asset management practices across different local authorities (OAG, 2014a). Addressing this variability and improving the quality of asset management is reliant on councils being able to source a good mix of skilled professional asset managers. However, Audit New Zealand (2010) notes that professional asset management is a complex role that requires a scarce set of analytical skills.

NZCID also raised capability issues:

> While we would support the dissemination of Wellington City practices across other major councils in New Zealand, acknowledgement must be made by the Commission that the overwhelming majority of councils do not have the resources to sustain such an approach. Wellington City's asset management system relies on specialist skills, advanced monitoring and computational systems and an extensive understanding of assets. Small, rural councils in particular cannot be expected to obtain and retain the skills and systems necessary to implement best practice asset management. (NZCID, sub. DR132, p. 12)

While the focus of this inquiry does not extend to small rural councils, it is important that good practices and approaches to asset management are shared among local governments. The Commission is aware of quite a range of initiatives that seek to facilitate standardisation of approaches to asset management, resource sharing, and dissemination of good practices (Box 8.5).

Box 8.5 **Existing initiatives to facilitate sharing good practice in asset management**

The OAG has promoted good management of public assets for some time:

> My Office has focused on asset management and encouraging good management of public assets throughout the range of our audit work since the introduction of accrual accounting in the late 1980s. We consistently see that best results are achieved when asset management is integrated throughout the business. An integrated management approach involves robust information and systems that are used co-operatively by asset managers, engineers, valuers, planners, corporate finance staff, management, and the governing body to ensure that the right people contribute the right information at the right time. (OAG, 2013, pp. 3–4)

New Zealand Asset Management Support is a non-profit industry organisation that was established to promote infrastructure asset management practices, policies and systems. NAMS offers infrastructure asset management training programmes and has prepared good practice manuals and guidelines (NAMS, n.d.b).

Some smaller councils have adopted a shared services approach to asset management. For example, since 2008, the Manawatu and Rangitikei District Councils have had a shared services agreement for asset services, with staff managed through the Manawatu Asset Group. The increased capacity of the asset management team is reported to have resulted in the delivery of more robust information to the governance arms of both councils, facilitating better informed decisions (Audit New Zealand, 2010).

As part of their review of three waters management, LGNZ (2014) is exploring a range of options to improve asset management. LGNZ also offers training programmes on infrastructure management that focus on the main infrastructural assets owned and operated by councils.

Several inquiry participants noted that asset management and information about the condition of assets is relatively better for transport infrastructure, particularly roads. One reason for this is that most transport infrastructure is visible (unlike many water pipes which are underground). This means that visually inspecting transport infrastructure assets is comparatively easy. Another reason is that the NZTA requires councils to record specific information about roads so as to receive funding from central government. All local authorities use the same software to record information about roads and there are formal expectations and standards of completeness and accuracy for the information collected (OAG, 2014a).

The Transport Analytics Governance Group (TAGG) was formed in 2014. It is comprised of Wellington Council, Christchurch Council, Auckland Transport and the NZTA. The group seeks to develop a collective approach to improve asset management capability and has identified that this requires consistent practices in terms of data use, processing and analysis (Read & Havakis, 2015).

The Road Efficiency Group is another initiative aimed at sharing perspectives and knowledge to improve performance in the transport sector. The group was formed in 2012 and is a collaborative initiative by the road controlling authorities in New Zealand. It focuses on three key areas:

- a One Network Road Classification to standardise data and create a classification system that identifies the level of service, function and use of road networks and state highways;
- Best Practice Asset Management to share best practice planning and advice with road controlling authorities; and
- collaboration with the industry and between road controlling authorities to share information, staff and management practices (NZTA, 2013).

In addition to the existing initiatives to facilitate better approaches to asset management, the *New Zealand Thirty Year Infrastructure Strategy* revealed a suite of initiatives to improve the planning, delivery and management of infrastructure in New Zealand (National Infrastructure Unit, 2015b). These include two specific measures to strengthen asset management practices.

- Developing national metadata standards for roads, water and buildings to ensure a consistent base to build evidence, undertake forecasting and deepen capability.
- Establishing regional centres of excellence for collating and making available the data obtained through shared metadata standards. This initiative will also explore the costs and benefits of any new entity providing the necessary analytics to interrogate the data and support local decision making.

F8.13 A broad range of initiatives is in place to strengthen local government asset management practices. The National Infrastructure Unit is well positioned to monitor these initiatives and take additional steps to strengthen practice as necessary.

8.6 Managing demand for infrastructure through user charges

User charging can help councils to improve the productivity of their infrastructure assets and investment. Paying for infrastructure services gives customers incentives to conserve their use of these services. In some cases (for example, roads), this can extend the economic lives of the underlying assets and reduce maintenance costs. In other cases (for example, water), charging can increase councils' incentives to maintain assets such as pipelines to reduce water leakage. The introduction of user charges often results in a

reduction in demand for the service. From the perspective of infrastructure supply to support new dwellings, this may enable councils to accommodate additional population growth without the need to invest in new infrastructure assets.

User charges, however, need to be set carefully if they are to have the desired impacts on efficiency (Box 8.6).

Box 8.6 **Economic concepts of infrastructure pricing**

Infrastructure pricing can promote:

- allocative efficiency, which requires that resources are allocated to their most highly valued uses;
- productive efficiency, which requires the production of goods and services at the lowest possible cost; and
- dynamic efficiency, by signalling to users the cost of new infrastructure capacity, so as to encourage efficient investment in infrastructure capacity.

Achieving these efficiencies requires setting prices at marginal cost, to encourage the optimal use of existing infrastructure and signal to users the cost of an additional unit of a good or service. Prices above marginal cost will lead to some consumers not being able to use a service, even though the value they place on it exceeds its cost. Prices below marginal cost provide insufficient incentive for producers to provide services that consumers would have been willing to pay for.

Marginal costs are forward looking (so have to be estimated), and there is an important distinction between short- and long-run marginal costs. Short-run marginal costs (SRMC) are the costs of an incremental change in demand, holding physical capacity constant, while long-run marginal costs (LRMC) relax the capacity constraint, and assume all factors of production can be varied. When there is spare capacity, SRMC essentially comprises variable costs. But when capacity is constrained, SRMC increases to the price that is necessary to bring demand back into equality with the available capacity. In the case of water, for example, estimating SRMC in such situations requires including the scarcity value of water (recognising that if one person uses a litre of water, another person must be denied the use of that water).

Among the practical issues that have to be confronted in infrastructure pricing, two are particularly important.

- Many infrastructure industries are characterised by economies of scale. In these cases, prices set at marginal cost would not cover all the costs of providing the service. It is common for two part tariffs – involving a fixed charge to cover capital cost and investment in the infrastructure, and a volumetric charge set equivalent to marginal cost – to be used in these circumstances (although there are other options as well). The fixed charge should be independent of consumption, but may vary between consumers.
- A choice has to be made between setting the usage charge at SRMC or LRMC. When suppliers require little or no expansions to their network, no significant differences will exist between user charges based on SRMC or on LRMC. The two will vary, however, when capacity is fully used. Pricing at SRMC leads to allocative efficiency, but these prices can vary considerably across time and location and are difficult to estimate (for example, the scarcity value of water). Infrastructure suppliers (and regulators when they have a role) have to weigh up a number of competing considerations in determining whether to base prices on SRMC or LRMC.

Source: NERA, 2014; Sibly, 2003.

When to apply user charges

The potential for introducing user charging depends on weighing up the costs and benefits in each case.

Imposing user charges typically requires some form of metering, which has a capital cost and ongoing maintenance costs and administration costs (such as reading meters).

The benefits are to be found in the efficiency gains described earlier. In addition, without user charges, projects may need to be funded through higher rates – which impose efficiency costs.

The size of the efficiency gains from user charges is case-dependent, but general observations are that user charges:

- are less appropriate in the case of a public good, from which users cannot be excluded and where one person's use of the good does not affect anyone else's use (yet few genuine public goods exist);
- are more difficult to determine when economies of scale are significant;
- may not improve efficiency if demand is totally unresponsive to price (although they may still be justified on grounds of fairness) (Bird & Tsiopoulos, 1997);
- may provide small efficiency gains if the SRMC of supplying a good or service are low; and
- may not be appropriate if the government's objective when providing a service is purely distributional.

User charges may need to be adjusted to take account of externalities, when they are significant. For example, university students typically do not bear the full costs of education, which is expected to have some spillover benefits to society in addition to the benefits to the student.

Policy implications

In many cases, introducing user charges is politically challenging. Some will see charging for services that previously appeared to be free (for example, services that are funded from rates revenue) as a revenue-gathering exercise, or as an undesirable step toward privatisation.

However evidence shows that user charges can improve the productivity of infrastructure assets. It also shows that user chargers can provide information about residents' valuation of services from those assets – a valuation that is largely hidden when these services are funded through rates (Bird & Tsiopoulos, 1997). User charges also allow consumers to decide what they buy, and in what quantity, giving them greater control over their economic lives (LGNZ, 2015a). Water New Zealand gives a compelling account of the benefits of using user charges for water services:

> While the question of metering has often misinformed rhetoric surrounding it, it is clear there are significant advantages. Rapidly emerging technologies such as digital or 'smart metering' means that consumers have a far greater sense of the value and importance of the water they receive. Metering results in greater equity than is currently the case, where a blanket uniform annual charge offers no incentive to change consumer behaviour. It helps identify leakage, offers a pricing tool to manage supply in times of drought, and allows the consumer to far more effectively manage their demand requirements. (Water New Zealand, sub. DR97, p. 3)

LGNZ (2015a) examines the prevalence of user charges in their recently published discussion document on local government funding. It finds that the ratio of user charges to general rates varies significantly between councils. It finds also that the sorts of activities that user changes fund or part fund are widely divergent. LGNZ concludes that most councils have scope to apply user charges for some services currently funded through rates:

> Greater application of user charges to replace targeted and general rates for services such as water, waste management, sewage disposal schemes and the like would enhance economic welfare. (LGNZ, 2015a, p. 43)

F8.14 User charges are an effective approach to demand management that can enable councils to make better use of existing assets. This can contribute to an improved supply of land if it increases the number of dwellings that existing infrastructure assets can support. It also has potential to reduce the operating expenditure of councils and to delay or avoid capital investments in new infrastructure.

R8.4 Councils should pursue opportunities to make more efficient use of existing infrastructure assets, including through greater use of user charges where this can reduce demands on infrastructure.

User charges for water

The approach to water metering and volumetric charges across New Zealand's high-growth councils is varied (Table 8.2). As discussed below, the Local Government (Rating) Act 2002 only permits councils to set targeted rates that volumetrically charge for drinking water, not wastewater. Auckland (where water services are managed by a CCO) is the only area where volumetric charges are used for wastewater.

Table 8.2 Approaches to water metering: selected high-growth councils

Council	Approach to water metering
Queenstown Lakes District Council	Few residential and non-residential properties are metered.
Christchurch City Council	All properties in living and rural zones are fully metered, but volumetric charging is not used.
Hamilton City Council	A few (2%) urban residential properties are metered for monitoring purposes only. About 90% of non-rural non-residential properties are metered. No plans exist to extend metering in urban areas.
Tauranga City Council	All residential properties are metered. The volumetric charge is $1.73/cubic litre.
Auckland Council (Watercare)	All residential properties are metered. The volumetric charge is $1.375/cubic litre for drinking water, and $2.336/cubic litres of wastewater.

Source: Water New Zealand, 2013; Watercare, 2014; Tauranga City Council, 2013.

While relatively few councils in New Zealand have introduced volumetric charges for water, council that have introduced user charges have seen significant behavioural changes.

- After introducing water meters and volumetric charges, Kāpiti Coast District Council reported that more than 340 water leaks (amounting to a daily loss of 1.8 million litres) had been detected on private property (Local Government Infrastructure Advisory Group, 2013). This amounts to the residential water use of over 6 500 people (assuming a daily water use of 275 litres per person).
- Universal water metering was introduced in Auckland in the early 1990s leading to a significant reduction in demand. In the 10 years prior to the introduction of water meters, gross consumption per person fluctuated between around 400 and 425 litres a day. Gross consumption had declined to 298 litres a day by 2004, and fell to approximately 274 litres a day in 2013 (Watercare, 2013).

TCC's experience with the introduction of water meters and volumetric charging for water is a leading practice and provides a good example of the benefits that can be obtained by sweating an asset through user charges (Box 8.7).

Box 8.7 **Water metering in Tauranga**

In the mid-1990s TCC identified that population growth and increased demand for water would result in their existing water plants reaching capacity by 2004–2005. The two available options to address this challenge were to build a new supply scheme, or to reduce water demand and delay the need for the new scheme. Following public consultation, the council decided to install water meters and implement universal water charging.

Universal water charging resulted in a reduction in peak demand of approximately 30%, with average demand reducing by about 25%. This meant that construction of the proposed new water scheme could be delayed by at least 10 years.

Coupled with the reduction in water demand was a corresponding reduction in wastewater volumes. This meant that upgrades to the wastewater treatment and collection systems could be delayed, resulting in further operational savings.

The overall savings generated by Tauranga's metering and charging system have been estimated at around $4.7 million a year, with the net present value of saving over a 30-year period estimated at $83 million.

Source: Sternberg & Bahrs, n.d.

Although water metering has proven very beneficial in Tauranga and other cities, some inquiry participants and commentators note that the costs and benefits of water metering need to be assessed on a case by case basis:

> …the value of water meters will depend on the cost of investing to meet demand growth (for either water or wastewater treatment) and the value of information provided from water meters for resource and asset management. (LGNZ, 2014, p. 21)

> … it is up to each council to determine the best means of pricing it (user pays or a flat fee e.g.) to reflect their situation. However, councils must have a publically available robust and transparent policy that outlines how they formulate their charges. (Property Council New Zealand, sub. DR100, p. 8)

> The principle of maximising efficiency of existing infrastructure through greater use of user charges is supported as a general approach… potential implementation however needs to be location-specific, factoring in local realities relating to infrastructure provision together with demand and supply. (Christchurch City Council, sub. DR128, p. 9)

Other inquiry participants were more categorical in their support of user charges:

> There should be an increased application of user charges, particularly for water services… (Federated Farmers, sub. DR120, p. 4)

As set out in Chapter 10, recent amendments to the LGA have created a legislative requirement for local authorities to review the cost-effectiveness of their arrangements for local infrastructure services. Section 17 of the Act sets out that such reviews must consider options for the governance, funding and delivery of infrastructure. When councils conduct these reviews for water infrastructure, they should consider whether the benefits of introducing water metering will outweigh the costs.

R8.5 When reviewing options for the governance, funding, and delivery of infrastructure under section 17 of the Local Government Act 2002, councils should assess whether the benefits of introducing volumetric charges for water outweigh the costs.

Where it can be shown that there is not a good case for the introduction of volumetric metering, some councils may still have scope to increase transparency around the costs of provision. For example, Cranleigh et al. (2015) note that without implementing water metering, Hamilton City Council could still improve the clarity of the way they bill residents for water:

> Residential water and wastewater customers currently do not receive a water bill as water services are funded by general rates. This means that the cost of service delivery is not clear to water customers some of whom think that water is "free". This is neither helpful from a water conservation point of view nor in explaining the need for capital investment. Clearer billing could be achieved by moving to targeted rates for water and wastewater which are either separately listed on rates bills or presented in a separate water services bill. This does not require the implementation of water metering as the targeted rates could simply be fixed rates per connection based on average useage. (Cranleigh et al., 2015, p. 16)

In the absence of an economic case for introducing volumetric charges, water costs should be separately listed on rates bills or presented in a separate water services bill.

R8.6 Where no economic case exists for introducing water metering and volumetric charges, councils should separately list these costs on rates bills or present them in a separate water services bill.

Charges for wastewater

In the case of drinking water, the Local Government (Rating) Act 2002 makes specific provision for user charges noting that a "local authority may set a targeted rate in accordance with its funding impact statement for the quantity of water provided by the local authority". This rate may be calculated as either a fixed charge per unit of water consumed or supplied, or according to a scale of charges. However, as noted by TCC and Western Bay of Plenty District Council, this provision only applies to the supply of drinking water:

> In respect of wastewater user charges, we note that legislation does not provide for them to be charged as a rate (under the Local Government (Rating) Act), which is at odds with water metering which can be charged as a rate. This is a barrier to implementing user charges for wastewater which could be resolved by a minor legislative amendment. (TCC, sub. DR102, p. 21)

> The Local Government (Rating) Act does not provide for council's to charge for sewage treatment and disposal by volume. This is something many councils have advocated for, over many years. (Western Bay of Plenty District Council, sub. DR104, pp. 8–9)

As noted earlier (Table 8.2), volumetric charges for wastewater are currently only used in Auckland, where water services are managed by Watercare, a CCO.

Given the benefits associated with user charges, the Commission agrees that the Local Government (Rating) Act 2002 should be amended to enable local authorities to introduce volumetric charges for wastewater.

R8.7 The Local Government (Rating) Act 2002 should be amended to enable all local authorities to charge for wastewater volumetrically in the way that they can for drinking water (irrespective of whether wastewater services are managed by a CCO).

User charges for roads

Several high-growth councils have expressed a desire to manage demand for transport infrastructure through the introduction of user charges such as tolls and congestion charges:

> The Auckland Plan identifies the need to implement new transport funding mechanisms to raise revenue and manage demand. Our analysis shows these [user] charges provide three times the economic benefits of alternatives such as petrol taxes and rates. (Auckland Council, sub. DR135, p. 28)

> Long-term traffic modelling for Tauranga identifies a number of areas where congestion will reduce levels of service below acceptable levels, including the harbour bridge. There may not be cost effective engineering/construction solutions to resolve these problems, hence tools like road pricing may be essential to managing the road network in a way that both supports population and urban growth but does not compromise economic efficiency, especially in regard to access to and from the Port of Tauranga. (TCC, sub. DR102, p. 21)

However, councils are limited in their ability to introduce user charges. Section 46 (1) of the LTMA sets out the conditions for establishing road tolling schemes. Following a recommendation from the Minister of

Transport, a road controlling authority (the NZTA, a Territorial Authority, or Auckland Transport) can establish a road tolling scheme for "the planning, design, supervision, construction, maintenance, or operation of a new road". Section 48(2) prohibits the introduction of tolls for existing roads.

Although councils are unable to introduce tolls for existing roads, approximately half of local government transport funding comes through grants from the National Land Transport Fund. This fund is comprised mainly of user charges collected by central government: petrol tax, road user charges, and vehicle registration and licensing fees. While this is a relatively low-cost system of collecting revenue from road users, it is not targeted based on the nature of road use and cannot be used to manage demand on particular parts of the road network.

Use of tolls and road pricing were recently examined by the Local Government Infrastructure Advisory Group (2013) who found that current funding mechanisms do little to incentivise efficient use of transport:

> It is unlikely that a base charging system alone will be able to support cost-effective transport investment in all circumstances. That said, neither will local government rates. This is in part because there is no clear link between usage and payment and, as a result, there is limited ability to manage demand for investment and improving levels of service. (p. 96)

The Local Government Infrastructure Advisory Group recommended that the LTMA "should be amended to allow pricing on existing roads where there is a business case that enables effective network optimisation" (2013, p. 98).

While the introduction of user charges can be politically challenging, recent survey results suggest that residents are relatively open to the idea of motorway user charges. Colmar Brunton surveyed 5 000 Auckland residents about their preferred option for funding a more comprehensive transport network. Of those surveyed, 57% supported a motorway user charge, 31% preferred a fuel tax and additional rates, while 10% didn't like either option and 2% were undecided (Colmar Brunton, 2015). In addition, a survey of about 250 individuals involved in building and infrastructure markets found that around 70% of participants were in favour of increased use of user charges to fund infrastructure in Auckland, while fewer than 5% of respondents preferred user charges to be used less (AECOM, 2015).

As discussed earlier, policies to incentivise more efficient use of infrastructure can allow existing assets to service an increased population, enabling councils to accommodate growth at a lower cost. The Commission is supportive of the Local Government Infrastructure Advisory Group's recommendation to amend the LTMA to allow pricing on existing roads.

R8.8 The Government should amend the Land Transport Management Act 2003 to allow pricing on existing roads where a case has been made that it would enable more effective use of the roading network.

8.7 Challenges relating to infrastructure construction

Compared with other issues canvassed in this inquiry, such as planning and funding of infrastructure, inquiry participants raised relatively few issues relating to physical construction of infrastructure. This section examines the three main issues that were raised: the process used to designate land for infrastructure under the Resource Management Act 1991 (RMA); the use of infrastructure standards; and processes to facilitate integration with private infrastructure providers and developers.

Land designation for infrastructure

One way that delivery of infrastructure is facilitated is through provisions in section 8 of the RMA. These allow areas of land to be designated for use as network utilities (such as roads and telecommunications facilities) or large public works (such as schools and prisons). A designated area ('designation') is effectively a site-specific zoning that enables works or a project to progress without the need for land-use consent from the relevant council. A designation also prohibits any activity within a designated site that would prevent or hinder a project or work to which the designation relates (section 176(1)(b) of the RMA).

Designations can only be granted to a 'requiring authority' that has financial responsibility for the project or operation of the land (a Minister of the Crown, a local authority, or a network utility provider approved by the Minister for the Environment). Once a designation is in place, the requiring authority may do anything allowed by the designation, and the usual provisions of the District Plan do not apply to the designated site (MfE, 2010b).

Obtaining a designation involves a similar process to applying for resource consent. The requiring authority must submit a notice of requirement to a council before going through a decision-making process to determine whether it becomes a designation. The decision-making process involves the following steps:

- The requiring authority usually carries out a site or route selection and consultation process.
- The notice of requirement is prepared and lodged with the district or city council.
- The council decides if the designation should be publicly or limited notified. If so, people and groups are able to lodge submissions with council.
- If the notice of requirement is notified, a public hearing is held where the requiring authority and all submitters are able to be heard.
- The council recommends to the requiring authority whether it thinks the designation should be confirmed in the district plan (with or without modification and conditions) or withdrawn.
- The requiring authority decides whether to confirm or withdraw the notice (in other words, to accept or reject the council's recommendation in part or full).
- The opportunity exists for the council or any submitter to appeal the decision of the requiring authority (the appeal is lodged with the Environment Court).
- Where the council is also the requiring authority, it does not make a recommendation but a decision to confirm, cancel or modify the requirement. Submitters can appeal to the Environment Court. (MfE, 2010b, pp. 7–8)

Notices of requirement can be processed through two alternative routes.

- Notices deemed to be of national significance are processed by the Environmental Protection Authority (EPA). The notice of requirement is referred to either a board of inquiry or the Environment Court, whose members make a decision about the designation.
- Notices can be directly referred to the Environment Court if the requiring authority requests it and the council agrees. In these cases, the Environment Court will make a decision about the designation.

NZCID (sub. DR132) sets out a good example of how land designations can play an important role in retaining land to provide infrastructure for future residents should it be required (Box 8.8).

Box 8.8 **The role of designations in enabling infrastructure to support growth**

It is essential in a growing, particularly intensifying, city that infrastructure to meet growth can be provided when and where required. The most effective means to ensure provision of essential services is through an infrastructure designation which protects corridors linking infrastructure networks. Such designations may, in some cases, remain in place for decades before utilisation.

For example, extending through Orakei, Meadowbank and St Johns in Auckland is a corridor which has, for many decades, been held in public reserve as a potential future transport corridor… This corridor may or may not be required for additional transport services. However, it is a strategic priority that it is retained in order to provide future residents with the option to improve transport connectivity should they require it.

The expansion of development onto land previously intended for infrastructure reduces future options and increases costs to taxpayers. For example, the Western Ring Route through Auckland is a transport corridor that had been on transport authority plans for several decades… Despite the intention to direct services through that corridor, successive councils allowed development to intrude and eventually consume entirely available land. As a direct consequence, the Waterview Connection finally had to be constructed as a $1.4 billion tunnel to avoid development in a long

since identified corridor when other similar sections were completed a decade earlier for around a quarter of the cost.

We do not support the conversion of land designated for infrastructure to housing unless there is compelling evidence that this land will not be required for its original purpose.

Source: NZCID, sub. DR132, pp. 6–7.

A primary concern raised by inquiry participants about the designation process is that the default period for designations is five years. The Commission received a range of views from inquiry participants regarding this issue. Several councils argued that this timeframe does not sufficiently reflect the benefits of long-term planning or the lead time needed to develop and fund significant pieces of infrastructure:

> Infrastructure planning consistent with growth management planning needs to take a long term view. Land needs to be identified and set aside for roads and infrastructure before development occurs. However, the designation provisions in the RMA allow only 5 year terms for designations. In specific cases extensions can be given. In reality however, typical planning horizons for infrastructure are up to 30 years. (Wellington City Council, sub. 21, p. 9)
>
> There is absolutely a need to be able to plan and protect a long term approach to infrastructure development. Designations (or land purchase) are the only current ways to create that protection and therefore we believe designation (and possibly resource consent) durations should be extended to enable local authorities the ability to protect future projects and outcomes. (TCC, sub. DR102, p. 21)
>
> HCC [Hamilton City Council] fully supports increasing the default duration of designations… for the following reasons:
>
> - Given the significant costs involved in securing a designation, a short lapse period can result in these costs being duplicated if the designation is not given effect to in the timeframe.
> - A longer duration would also allow strategic thinking to ensure the integration land-use and infrastructure well in advance of development and would allow alignment with the 30 year Infrastructure Plans which councils are now required to develop. It would also provide greater certainty for the community as to where major infrastructure was to be located. (Hamilton City Council, sub. DR114, pp. 9–10)

Two councils suggested that a longer default time period might be preferable, but noted risks that need to be balanced:

> We feel the 5 year default period for designations may be too short but consider encumbering land for much longer can create other challenges including financial risk for the requiring authority (provisions of the Public Works Act apply if the designation impedes reasonable use). The previous 10 year designation period was reasonable. (Bay of Plenty Regional Council, sub. DR89, p. 6)
>
> It is considered that the default duration of five years for major infrastructure projects should be changed. However, there is a difference between a site specific designation (i.e. a school or an airport) versus a major infrastructure project to unlock land for new housing. There should be a careful balancing of the fairness and reasonableness of a landowner needing to endure a 'planning blight' for a significant timeframe. One way to resolve this could be to retain the five year timeframe for all designations, except for 'major infrastructure projects', which would need to be carefully defined in the RMA. (Waipa District Council, sub. DR133, pp. 7–8)

Tasman District Council suggested that the current designation process can work effectively:

> Used as it should be the designation process is able to be used to allow public works to be planned for in advance of provision… The current system can be made to work quite effectively. (Tasman District Council, sub. DR96, p. 5)

As illustrated by the example of transport corridors in Auckland (Box 8.8), good reasons may exist for a designation to be in place for longer than five years. However, two processes already allow designations to be extended beyond five years:

- requiring authorities can apply to extend a designation provided "substantial progress or effort has been made towards giving effect to the designation and is continuing to be made" (RMA, s198(1) (b)); and

- requiring authorities may also apply for a designation longer than five years (section 184 of the RMA states that "a designation lapses on the expiry of 5 years after the date on which it is included in the district plan unless… the designation specified a different period when incorporated in the plan").

The issue of default durations for designations was examined by the Ministry for the Environment (MfE) in 2010. Based on a survey of territorial authorities, MfE found that "lapse periods do not cause problems for requiring authorities… It appears therefore that the potential issue of a short default lapse period may not be a significant problem in practice" (MfE, 2010a, p. 37). MfE also found that district plans also frequently include designations that extend beyond five years:

> A recent random sample survey of 30 district plans indicates that where lapse periods are included in the schedule of designations, their median duration is 10 years. There were, however, several instances where lapse periods of 15 or more years were recorded (eg, 15 years for the air noise boundary associated with Queenstown airport; 20 years for the NZTA's proposed northern and eastern arterials in Tauranga City; 30 years for the upgrade and widening of a local road in Manukau City). These figures suggest that it is not uncommon for lapse periods longer than the default five years to be obtained. (MfE, 2010a, p. 37)

Designations help to ensure that infrastructure assets of benefit to the wider community can be installed and maintained in a cost-effective manner. This typically involves some limitation (albeit temporarily) of the property rights of landowners covered by the designation, although the scale of limitation varies. Planning systems have to strike a balance between these two interests. As the Environment Court has noted, notions of fairness and reasonableness are important considerations:

> … we have the view that to expect a landowner to endure such a *planning blight* on a not insubstantial portion of otherwise valuable land, and for such a long period, is unreasonable and unfair. That is not because we see the *proposed,* or perhaps more accurately *envisaged,* runway extension and HIAL installation as unimportant. That is not the case at all. But it should not be that a private landowner has the use of its land significantly limited for such a long period [15 years] … because of a possible third-party requirement that, literally, may never happen. (Waipa District Council, sub. DR133, p. 23, Appendix 2, Environment Court Decision).

While the five-year default period may create inconvenience for some requiring authorities, it was not clear to the Commission that a longer default period would necessarily provide a net benefit. The RMA already provides for requiring authorities to seek longer designation periods, and the MfE data suggests that these provisions are used when necessary. A longer default would also imply longer-lasting limitations on private property rights.

An alternative would be to remove the default period altogether, and leave councils (or, where necessary, other decision makers such as the Environment Court) to determine the appropriate designation term. This would increase the flexibility of the planning system, but could increase administration and compliance costs. This option could be considered as part of wider RMA reform.

F8.15 It is not clear that a longer default period for designations would provide a net benefit. The RMA already allows requiring authorities to seek longer designation periods, and a recent assessment suggests that these are used when necessary. The option of removing the default period altogether could be considered as part of any wider RMA reform.

Standards for infrastructure

The high-growth councils that are the focus of this inquiry have each published documents that set out the engineering standards for infrastructure. For example, TCC's required standards for developing infrastructure and land are set out in *The Infrastructure Development Code* (Tauranga City Council, 2014b). The aim of such documents is to ensure that infrastructure constructed by various organisations meets certain consistent standards. Standards documents typically include separate sections or documents that cover infrastructure issues associated with urban growth (such as earthworks and geotechnical requirements; transport; and the three waters).

Required infrastructure standards are a major source of tension between some councils and developers. This tension stems primarily from the fact that councils are responsible for the ongoing maintenance, upkeep and operation of infrastructure, but developers are largely responsible for funding growth infrastructure, and are also responsible for constructing some infrastructure (Table 8.3).

Table 8.3 Responsibility for infrastructure delivery, funding and maintenance

	Construction	Funding	Maintenance
Infrastructure within a subdivision or on-site	Developer	Developer	Council
Trunk infrastructure	Council (or developer under a development agreement)	Primarily developers through development contributions (the extent to which costs are recovered through development contributions varies between councils)	Council

Note:

1. Some councils have delegated responsibility for constructing and maintaining infrastructure to council controlled organisations.

The funding, construction and maintenance arrangements for growth infrastructure often create misaligned incentives regarding construction standards.

- Given that their primary concern relates to upkeep and maintenance, councils have incentives to require high construction standards that increase upfront construction costs but lower operational costs.
- Developers are primarily concerned with upfront construction costs, and are therefore incentivised to reduce these costs. Developers also want to make sections attractive to prospective buyers so they can have an incentive to ensure that infrastructure is aesthetically appealing. But there are few incentives on developers to factor in the durability of infrastructure beyond the period during which they expect to sell the sections.

The following quotes from submissions illustrate the different perspectives that sometimes emerge between developers and councils:

> Members consider that increases in specifications are often to a level which results in inappropriate/inefficient long-term spend... We need to find ways to ensure requirements placed on developers are not gold-plated to insure against future budget constraints. (Property Council New Zealand, sub. 33, annex 10, pp. 4–5)

> Councils are generally keen not to inherit infrastructure assets that are poorly located, designed, and constructed, or otherwise not fit for purpose. Council operates engineering standards and policies to require performance standards for all lifeline infrastructure of council, and these are imposed at subdivision. (Tasman District Council, sub. 25, pp. 8–9)

Tension regarding infrastructure often relates to standards that developers perceive as unnecessarily raising costs or reducing the yield of land. For example,

> [r]equirements to increase footpaths widths increases costs and reduces the number of lots able to be developed. (Property Council New Zealand, sub. 33, annex 10, p. 4)

Tension can also emerge regarding the nature of land that developers can contribute toward parks and reserves (Box 8.9).

Box 8.9 **Pocket parks or a maintenance liability?**

The Commission has heard from a number of developers that councils take a narrow view of the types of land contributions that are acceptable for reserves. For example:

> Auckland Council parks Dept. will currently only accept 3000m^2 football fields as parks. They refuse to accept pocket parks which are an essential part of intensification (which in turn is a key fundamental platform to creating affordable housing). People are increasingly looking toward

> quality public amenity that has places for people to sit, think, relax and be connected to Wi-Fi. But the old fashioned thinking that applied when everyone had a 600m^2 section of providing large play fields cannot apply to intensified developments where smaller sections are required to provide affordable houses which in turn means families and residents need local small park areas for children to play and for adult to relax, read or simply find some space. (Development Advisory Services, sub. 75, p. 4)

In response to this issue, councils note that larger parks are the most expensive to develop and that this is what they seek to recover through reserve contributions. Instead, councils suggest that developers sometimes seek to offload small, low-quality and poorly located parcels of land as pocket parks. These pieces of land then become a maintenance liability to the extent that, even if they are gifted to a council (over and above any reserve contribution), the council will sometimes not accept them.

The following section sets out some recommendations and good practices for setting and monitoring infrastructure standards.

Leading practices in the use of infrastructure standards

As discussed above, collecting accurate information about infrastructure assets is an important pre-requisite to resolving tensions about construction standards. Effective asset management systems should enable councils to record the upfront cost of different infrastructure solutions (including any changes in these costs over time) alongside the maintenance and other operational costs of different solutions. With this data, councils can better demonstrate the rationale for the infrastructure standards that they adopt.

R8.9 Effective asset management systems are important for maintaining existing assets and planning and delivering new infrastructure. Councils should set infrastructure standards based on evidence collected through asset management systems. Evidence underpinning infrastructure standards should be shared openly with the development community to help build an understanding regarding the rationale for certain standards.

A common complaint among developers is that council infrastructure standards are constantly being raised. Some developers feel that the rationale for these changes is not transparent and note that the lack of certainty about standards adds to the costs of development:

> Ever increasing requirements, standards and specifications increase complexity, delays and risks – which all increase costs and hinder development… There are constant incremental increases to engineering requirements for no clear reason. (Property Council New Zealand, sub. 33, annex 10, p. 4)

If councils never changed infrastructure standards, they would be unable to adapt to current best practices as new technologies and materials emerge. As such, periodic review and amendment of infrastructure standards should be seen as a good practice. Yet it is important that, before any standard is set, a clear case is made for change based on an assessment of costs and benefits – including the costs and benefits that developers incur.

As part of any cost–benefit analysis, councils should evaluate how changes to infrastructure standards might affect partially completed development projects. One inquiry participant noted that on two occasions infrastructure requirements were changed midway through the development process. In one instance, changes resulted in a requirement for a larger area of land to be set aside for stormwater purposes (reducing the yield of the development by about 10%). In the other instance, changes resulted in the unnecessary installation of water infrastructure. In this case, most of the costs associated with the new infrastructure requirements were ultimately passed on to the consumer.

In the draft report, the Commission recommended that developments that already have consent should be exempt from changes to infrastructure standards, or compensated for any additional costs incurred as a result of the change. Two inquiry participants noted that this recommendation needs to take account of the long periods of time that can pass between developers gaining consent and beginning construction:

> …where a developer has obtained consent a number of years prior to starting construction (examples of up to five years exist), there is a potential for adverse effects that results in inconsistency across the construction industry. (Watercare, sub. DR129, p. 7)
>
> This [recommendation] needs to be balanced against the length of time that a consent runs as developers try and secure large developments and slowly develop them over as much as 15 years. This locks in less than current infrastructure provision for Councils… 5 years subdivision consents should be the limit for protection from Council infrastructure rule changes. (Ian McComb, sub. DR122, p. 1)

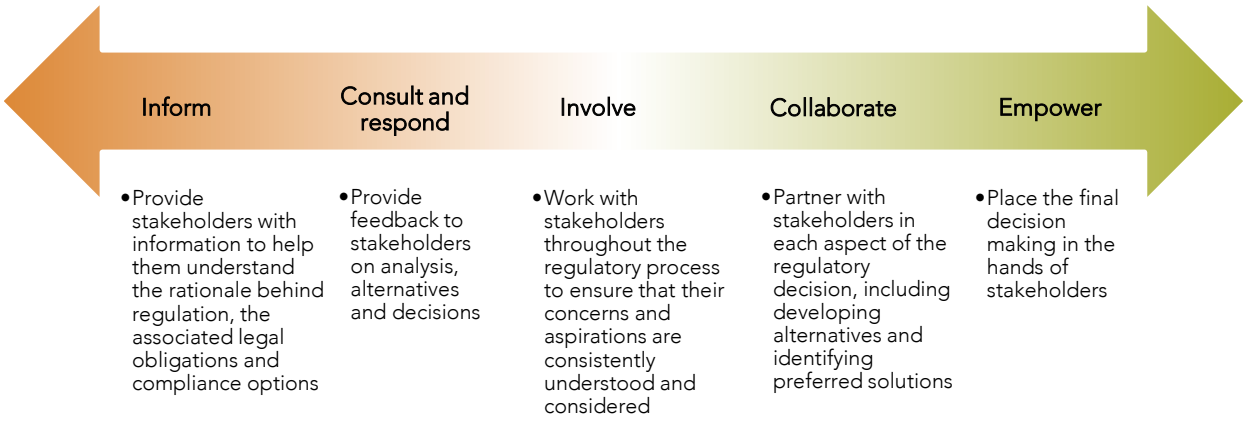
The Commission accepts this point and considers that the suggested five years is a reasonable period to protect a developer from changing standards.

R8.10 If councils determine that a good case to change infrastructure standards exists, then developments that already have consent should be exempt from the change, provided that they have held that consent for fewer than five years. Alternatively, developers should be compensated for any additional costs incurred as a result of the change.

Given the current incentives on councils and developers, a degree of tension regarding appropriate infrastructure standards may well be inevitable. However, feedback from inquiry participants suggests that these tensions are managed more effectively in some cases than in others. A constructive two-way working relationship between councils and the development community helps to manage such tensions.

The Commission's inquiry *Regulatory institutions and practices* (2014) notes the important role that effective engagement plays in the design and implementation of regulations. Engagement can serve a range of goals along a spectrum, from informing stakeholders about regulatory settings to empowering affected parties to make decisions about the nature of regulatory settings (Figure 8.4).

Figure 8.4 Participation in decisions – a spectrum of engagement goals



Source: Adapted from International Association of Public Participation, 2007.

In the case of infrastructure standards, the 'involve' and 'collaborate' points on the spectrum are the most appropriate approaches to ensure that councils can appropriately harness the advice and expertise of the development community. This might involve seeking early input from the development community about how different standards will play out in practice, and a commitment to seek the views of the development community before standards are changed or revised. Avenues by which councils seek input from the development community regarding infrastructure standards and other matters relating to land development are discussed later in this chapter.

Should infrastructure standards be more consistent?

Some inquiry participants noted that infrastructure standards across different local authorities vary needlessly:

> Many developers do work in more than one local authority area. It is not clear that variations between Councils planning rules add extra cost to developments because of the variances but this can add complications. This is especially true with engineering requirements as there are locations throughout

> NZ where certain standards are required to be met in one local authority and firmly held to and in an adjoining area there is a more flexible attitude, perhaps more performance based, particularly in road design standards. Even though NZS4404 2010 Land Development and Subdivision Infrastructure is available to guide design development, most local authorities have their own set of unique design standards for their own area creating differences between local authority areas and development standards. (New Zealand Institute of Surveyors, sub. 74, p. 10)

Council documents that set out infrastructure standards and requirements are (by necessity) technical and lengthy. For example, Auckland Transport's *Code of Practice* has more than 1 000 pages (Auckland Transport, 2013). This volume and complexity makes it difficult to assess the extent that infrastructure standards vary between different local authorities. In saying this, some variation is evident. For example, CCC sets the following standard for shared pedestrian–cycle pathways:

> The minimum clear width of formed paths in legal road is … 2.2m (but a desirable width of 2.5m) for paths shared by pedestrians and cyclists. The formed width should be widened wherever a lot of people are expected to use the facility. (CCC, 2015a, p. 8.12)

In contrast, Auckland Transport sets a minimum width of 3 metres for a path to be used by cyclists and pedestrians, with some flexibility:

> In some rare instances, a reduction of the minimum 3m width may be required due to topography, land use or other location based specific reasons. Any reduction in the minimum width will be reviewed on a case by case basis …Where a high number of users (including pedestrians) are expected wider path widths should be considered. (Auckland Transport, 2013, p. 373)

Hamilton City Council has a minimum desirable width for shared off-road footpath and cyclepaths of 3 metres, except in 'collector' transport corridors in 'Future urban land use environments', where the requirement is 2.5 metres (Hamilton City Council, 2012).

Although different infrastructure codes do vary, a number of factors help to generate consistency across territorial authorities. A particularly important source of consistency is the widespread use of Standards New Zealand's[42] *New Zealand Standard Land Development and Sub-Division Infrastructure* (NZS4404:2010).

> NZS 4404:2010 is applicable to greenfield, infill, and brownfield redevelopment projects. It provides local authorities … and developers [with] a Standard for the design and construction of subdivision infrastructure. (Standards New Zealand, 2010, p. 22)

Each of the 10 high-growth councils makes some reference to NZS4404:2010 in their infrastructure standards documents.

Councils also make use of other guidelines to inform their infrastructure standards. For example, Auckland Transport's *Code of Practice* notes that footpath design must comply with the NZTA's *Pedestrian Planning and Design Guide* (Auckland Transport, 2013). The NZTA produced this guide with the goal of promoting a consistent best practice approach to planning, designing, operating and maintaining walking infrastructure and networks (NZTA, 2009).

Some councils seek the input of other councils when formulating infrastructure standards. For example, Hamilton City Council's *Infrastructure Technical Specifications* acknowledges the input of TCC, Western Bay of Plenty District Council, Kāpiti Coast District Council, and CCC (Hamilton City Council, 2013).

Some councils are also seeking to achieve greater consistency in infrastructure standards within a region. The extent of this practice varies.

- In some cases, councils have adopted the infrastructure standards that other councils use in their entirety. For example, Hamilton City Council's six neighbouring district councils (Waikato, Waipa, Hauraki, Matamata-Piako, Otorohanga and Waitomo) all use Hamilton City Council's *Development Manual* (Hamilton City Council, 2013).

[42] Standards New Zealand develop standards that set agreed specifications for products, processes, services and performance, usually in conjunction with Standards Australia.

- In the Canterbury region, Selwyn District Council (2012) and Waimakariri District Council (2014) have both based their engineering standards on the CCC's *Infrastructure Design Standard*. Both district councils have modified those standards to suit local conditions and practices.
- Wellington Water and the Hutt, Porirua, Upper Hutt and Wellington city councils have published the *Regional Standard for Water Services* (Wellington Water, 2012). This standard seeks to consolidate local engineering standards for stormwater, wastewater and water supply infrastructure in the Wellington region. However, this standard needs to be read in conjunction with the four councils' existing development codes. The Commission is not aware of regional standardisation for other types of infrastructure in the Wellington region.

Given the costs involved in setting and updating infrastructure standards documents, and the likelihood of developers and infrastructure providers working across multiple council areas within a given region, efforts to create regional consistency are a good practice.

F8.16 A number of practices enable consistency in infrastructure standards set by councils, including the use of the *New Zealand Standard Land Development and Sub-Division Infrastructure* (NZS4404:2010).

The Commission received several submissions supporting greater consistency for infrastructure standards:

> The Council supports greater integration and standardisation in principle, and sees merit in more consistent infrastructure standards and better coordination with infrastructure providers. (Porirua City Council, sub. DR88, p. 3)

> Property Council supports a greater consistency in infrastructure standards and asset management planning across all Councils… Greater consistency and uniformity will provide additional confidence to developers around the required level of infrastructure and reduce possible conflicts between developers and councils. (Property Council New Zealand, sub. DR100, pp. 5–6)

Environment Canterbury supported greater national guidance for infrastructure, but noted the importance of being able to tailor standards to meet local conditions:

> National guidance for infrastructure (storm water, wastewater etc.) would simplify the need for individual councils to provide design standards, but any standards would need to be adaptable to provide for local differences in section size, climate and soil characteristics. (Environment Canterbury, sub. DR110, p. 7)

The Commission's inquiry *Towards better local regulation* (2013) sets out a framework for considering which level of government should be responsible for different regulatory responsibilities (Box 8.10).

Box 8.10 **A framework for allocating regulatory responsibilities**

The Commission's framework aims to guide decisions about the level of government best suited to set and administer regulatory standards. The framework addresses two key allocation questions: Who should be responsible for setting the regulatory standard or policy; and who should implement and administer the regulation?

- **Should the regulatory standard or policy be determined centrally or locally?** Factors relevant to this choice include the communities of interest that will be affected by the regulation; where the costs and benefits are likely to fall; how those responsible for setting the regulatory standard or policy can be held to account for decisions; and consideration of the merits or otherwise of accepting variability in regulatory outcomes across regions.
- **Should the regulation be implemented and administered centrally or locally?** Considerations include whether or not implementation requirements are likely to vary from region to region; the potential for cost efficiencies in allocating responsibility centrally or locally; the existence of incentives on the regulator that might hamper the effective delivery of regulation; the location of

the knowledge and capability to implement the regulation; and whether suitable arrangements for funding administration of the regulation exist centrally or locally.

Source: Productivity Commission, 2013.

Applying this framework to the issue of the appropriate allocation of responsibility for infrastructure standards raises a number of issues. When standards are set locally, the associated costs and benefits are often not contained within a single council area (as mentioned earlier, developers and infrastructure providers working across a region may have to contend with multiple different standards regimes). However, variability in infrastructure standards can be entirely appropriate. Councils are accountable to their local communities and must make expenditure decisions based on the ability of their communities to fund infrastructure to a particular standard, and on local conditions and priorities. In some situations councils may wish to reduce compliance costs for developers by requiring a lower standard, or may determine that standards for some infrastructure components are not needed.

In the Commission's inquiry into local government regulation, a survey of councils revealed that government regulatory requirements were often at odds with local pressures and priorities (NZPC, 2013). More than half of surveyed councils agreed or strongly agreed that local political pressures often conflict with the objectives of central government regulations. The introduction of a single set of national infrastructure standards runs the risk that important local preferences are not taken into account.

TCC notes that service standards for the transport network developed by the NZTA are one example of how greater national standardisation can come into conflict with local priorities:

> The One Network Road Classification (ONRC) has recently been developed by NZTA and the wider local government sector. TCC was involved in this process and raised a number of concerns that were generally not addressed in the final document. TCC sees the ONRC as an emerging threat to the management of urban and population growth. It seeks expansion into strategic transport network planning, establishment of controls over access onto arterial roads and extremely high levels of service for nationally strategic State Highways (of which there are a number in Tauranga). In growth areas, particularly those with topographical challenges like Tauranga (e.g. harbour, hills) where there is reliance on the State Highway network for local trips (especially for harbour crossings), the ONRC will inevitably increase costs for developers and councils and compromise the ability to provide for urban and population growth. (TCC, sub. DR102, pp. 26–27)

Hamilton City Council makes a compelling argument for greater consistency of infrastructure standards at a regional or subregional level:

> Yes, there is a case for greater consistency of infrastructure standards at a regional level and HCC is already working towards this in the Waikato… HCC is now working on an updated technical specification manual aligned to NZS4404, which will be implemented as a regional project across the Waikato via the Waikato Mayoral Forum. This will look at roading and three waters infrastructure standards. National level standards would be challenging as different regions have significantly different environmental considerations (e.g. soil types) and different drivers (e.g. freight, different industries, rural areas, tourism). Therefore HCC is of the view that consistency of infrastructure standards at a regional or sub-regional level is more appropriate than at a national level. (sub. DR114, p. 10)

F8.17 Adopting consistent infrastructure standards at a regional or subregional level (as practised in the Waikato region) may provide a good balance in addressing concerns about unnecessary variation in standards, while being responsive to local priorities.

A decision to standardise infrastructure across a region or subregion opens up the question of whether administering infrastructure regionally might also deliver gains.[43] Where infrastructure is standard across a

[43] In some cases it is the decision to manage at a subregional level that drives the need to achieve consistency (as was the case with Wellington Water).

region, the potential for cost efficiencies in administration can be explored, along with opportunities to build expertise and capability from a regional approach (Chapter 10).

Processes to facilitate integration between councils and private infrastructure providers

Infrastructure constructed by and managed by councils sits alongside infrastructure that is constructed by private developers and private utility companies. One theme that has emerged throughout the course of this inquiry is that good planning processes should include early input from the full range of actors involved in residential development:

> Better strategic planning, information sharing, collaboration and coordinated processes (such as at the consent stage) can help to facilitate more optimal developments and help to reduce the time taken for developments to become operational. Early notification and consultation can also help avoid negative impacts in regard to existing infrastructure too. (Electricity Networks Association, sub. DR111, p. 2)

The SmartGrowth Property Developers Forum is one initiative that seeks to facilitate a constructive dialogue between developers and representatives from the SmartGrowth councils (Box 8.11).

Box 8.11 **SmartGrowth Property Developers Forum**

SmartGrowth is the spatial plan for the western Bay of Plenty subregion that is overseen by TCC, Western Bay of Plenty District Council, Bay of Plenty Regional Council and Tangata Whenua. SmartGrowth hosts a bi-monthly meeting with property developers. The purpose of the Forum is to enable direct industry participation in reviewing and implementing the SmartGrowth strategy. Specific areas where the Forum's input is sought include:

- land use and urban form, including the Regional Policy Statement and resulting City and District Plan responses;
- infrastructure planning, funding and implementation;
- housing affordability;
- development viability; and
- the development of statutory and non-statutory policies by the SmartGrowth Partners that either arise from the strategy or have the potential to impact on the strategy.

Agenda papers and meeting minutes are published online.

Source: SmartGrowth, n.d.

SmartGrowth suggests that the Forum has helped to improve the dialogue between councils and developers:

> Through the SmartGrowth PDF [Property Developers Forum], councils gain a better understanding of the issues and challenges facing the development community. Likewise, property developers obtain a unique insight into local government challenges and motivations. Locally, there is a good balance between the requirements to deliver resilient and low whole of life cost growth, and affordability of the individual sections including development contributions. The PDF has also allowed for the early 'testing' of ideas such as whether having a 10 year land supply for the SmartGrowth Settlement Pattern was appropriate and how it should be implemented. (sub. DR106, p. 10)

Chorus (sub. 73, p. 4) notes that a process similar to the SmartGrowth Property Developers Forum has been beneficial for private utility companies in Auckland:

> The Auckland Infrastructure Providers Forum[44] is beginning to provide a range of opportunities to partner with the Auckland Council, to work together and engage on regulatory change.

The Auckland Infrastructure and Procurement Forum connects infrastructure providers, advisors, constructors and suppliers to provide for better procurement and coordination of major construction projects. The Forum meets quarterly and its membership includes the NZTA, Vector, Watercare and Auckland Council. Property Council New Zealand recommended that this approach should be adopted in other high-growth areas:

> Property Council supports the establishment of infrastructure forums modelled on the Auckland Infrastructure Procurement Forum. Instead of forums only in high growth cities, we advocate for a wider focus to include Councils experiencing and forecasted to experience high growth such as Waipa and Waikato District Councils. (Property Council New Zealand, sub. DR100, p. 6)

The Electricity Networks Association also noted support for initiatives to promote early engagement with utilities:

> We therefore are generally supportive of moves to promote early consultation with utilities (both at the council plan development level, and when new housing is being planned). To that end, we endorse taking a 'left arm/right arm' view of housing and network infrastructure provision. (Electricity Networks Association, sub. DR111, p. 2)

F8.18 Council processes that seek early engagement with the development community and private utility companies are a leading practice.

8.8 Conclusion

The key issue facing councils as they plan infrastructure to meet population growth is how to optimise the provision of shovel-ready land to maintain some competitive tension in the market, while not over-capitalising in the construction of costly infrastructure. Councils are currently managing this challenge through a cautious roll-out of new infrastructure in a limited number of areas on a 'just in time' basis. This approach is financially prudent, but it runs the risk of infrastructure becoming a bottleneck in the land supply cycle, particularly where estimates of demand are too conservative.

Staged construction techniques, developer-led infrastructure and clarity about the status of available land with regard to infrastructure can all help to ensure that the supply of infrastructure keeps pace with demand. Well-informed investment decisions and effective use of existing assets also have a role to play. Three approaches are noted below.

- Councils can reduce the upfront capital costs associated with growth-related infrastructure by prioritising development in the most infrastructure-efficient land areas.
- Councils may also increase effective land supply with relatively low infrastructure expenditure by ensuring that existing infrastructure assets are used efficiently. This requires planning rules that enable intensification to occur in areas with spare infrastructure capacity.
- Effective use of demand management approaches (such as volumetric charges for water and road pricing) can incentivise residents to use infrastructure more efficiently. Councils that have introduced these practices have seen a reduction in the use of infrastructure assets. This reduction has allowed them to accommodate additional growth without the need for costly new infrastructure.

Each of these approaches is heavily reliant on good information about the capacity and condition of existing infrastructure assets, and of the costs involved in rolling out new infrastructure in different locations. This means that councils need effective asset management processes that inform land-use planning and decision-making processes.

[44] The name of this forum recently changed to the *Auckland Infrastructure and Procurement Forum.*

9 Paying for infrastructure

Key points

- Paying for the infrastructure needed to support urban growth is a significant challenge for some high-growth councils. The costs associated with urban infrastructure appear to be rising.
- Debt is an important source of finance for infrastructure. It enables councils to deliver infrastructure when it is most needed and for costs to be spread over the life of the asset, meaning that those who benefit from the infrastructure contribute to paying for it.
- Although reports examining how councils use debt have not identified serious issues, recent amendments to the Local Government Act 2002 (LGA) have introduced new financial reporting requirements, including a debt-servicing benchmark. Evaluation of these regulations should monitor how they affect councils' ability to provide infrastructure to support growth and review whether the current benchmarks for debt-servicing ratios are appropriate.
- Development contributions play an important role in enabling the provision of essential infrastructure to support urban growth. By providing a way to fully recover the costs of growth from those that benefit, development contributions can mitigate community and political opposition to new growth.
- Development contributions should reflect differences in the cost of providing infrastructure for different types of dwelling. Where certain dwelling characteristics result in lower or higher costs on the infrastructure network, this should be reflected in the size of the development contribution.
- Councils are unable to recover the costs of some types of community infrastructure through development contributions. However, considerable scope exists for councils to use targeted rates to recoup the costs of this infrastructure from the sections of the community that benefit.
- Leading practices regarding development contributions include policies that enable flexibility around when development contributions are charged and transparent review of the method by which contributions are set.
- Tax increment financing (TIF) and value capture are two alternative approaches to funding infrastructure that inquiry participants suggested. However, TIF does not appear well suited to financing many types of growth-related infrastructure and does not fit easily with New Zealand's existing rating system. Value capture mechanisms have proven difficult to implement and sustain over time.
- One alternative way of recovering the cost of new infrastructure from those who benefit is to levy a targeted rate that is calculated on the basis of the change in land values that the new infrastructure generates. The Department of Internal Affairs should investigate amending the Local Government (Rating) Act 2002 to allow councils to levy targeted rates on the basis of changes in land value.
- The establishment of municipal utility districts (MUDs) has potential to inject competition into the market for infrastructure by enabling developers to construct infrastructure at their own initiative and to recover the costs from those that benefit over a long timeframe. Yet it is unclear whether a proliferation of small, resident-managed infrastructure districts would achieve efficiencies. There appears to be few barriers to pursuing this model of development in New Zealand and little enthusiasm for the model among the development community.

9.1 Introduction

The cost of infrastructure requirements for new dwellings is significant. As discussed in the previous chapter, total costs can be around $80 000 a dwelling (although costs are very site-specific). Having effective processes in place to recover these costs from the parties that benefit from the investment is important. Full cost recovery helps to provide for a more efficient allocation of land and infrastructure, and can mitigate community and political opposition to growth. In the absence of full cost recovery, cross-subsidies are required to support growth. Cross-subsidies are likely to create a significant disincentive toward expanding infrastructure networks to accommodate growth.

Alongside the need for effective processes to recover infrastructure costs, it is also important to acknowledge that these costs are not immovable and that they could potentially be reduced through more efficient provision. The way that councils build infrastructure and operate existing assets can make a material difference to costs. As set out in Chapter 8, robust asset management systems are needed to inform decisions about the most cost-effective infrastructure solutions, and to ensure that infrastructure assets are used to their full capacity. Significant potential also exists for councils to implement infrastructure demand management by applying user charges.

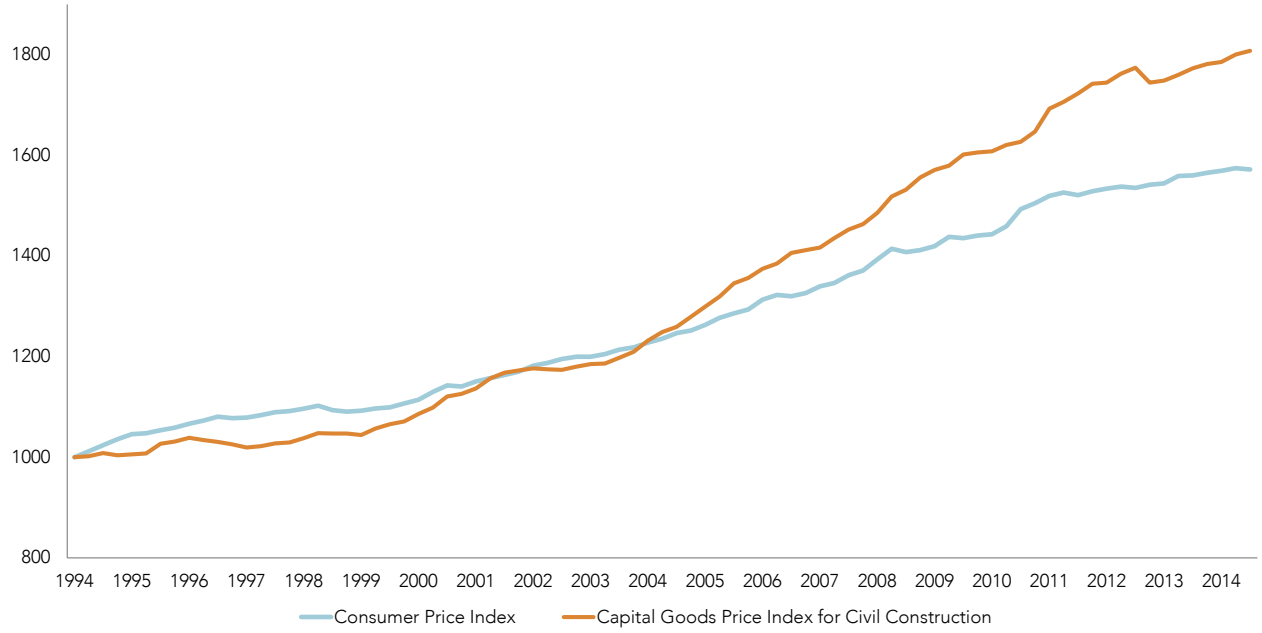
This chapter begins by setting out the challenges associated with paying for infrastructure in high-growth cities (section 9.2). It then examines councils' use of debt, which is an important source of finance for growth-related infrastructure (section 9.3). The chapter also considers the sources of funds that councils use to pay for infrastructure (section 9.4), with a particular focus on the most effective ways of using development contributions (section 9.5). The chapter concludes by reviewing the case for several alternative approaches to paying for infrastructure (section 9.6).

9.2 Challenges associated with paying for infrastructure

A consistent message from councils is that paying for infrastructure renewals and extensions is becoming increasingly challenging, largely as a result of rising costs. Inquiry participants advanced three main reasons for the increasing cost of providing infrastructure.

- *Development is moving into more marginal land* – some cities are expanding into areas where the land is less easily developed, requiring more costly infrastructure solutions. The Commission has heard that underground infrastructure can be particularly costly in some parts of Auckland where there is volcanic rock underground.
- *Higher standards* – ratepayers expect better-quality infrastructure services, such as the flood protection provided by stormwater systems. Central government is also imposing more demanding quality standards. For example, a 2007 amendment to the Health Act 1956 required councils to take all practicable steps to comply with (previously voluntary) drinking-water standards and to implement a public health management plan for drinking-water supply (LGNZ, 2014).
- *Increasing costs* – councils also report that the costs of providing infrastructure have increased. As an indication, over the past 10 years the cost of civil construction projects has increased more rapidly than the consumer price index (CPI) (Figure 9.1).

Figure 9.1 Capital goods price index for civil construction



Source: Statistics New Zealand, Capital Goods Price Index.

Note:

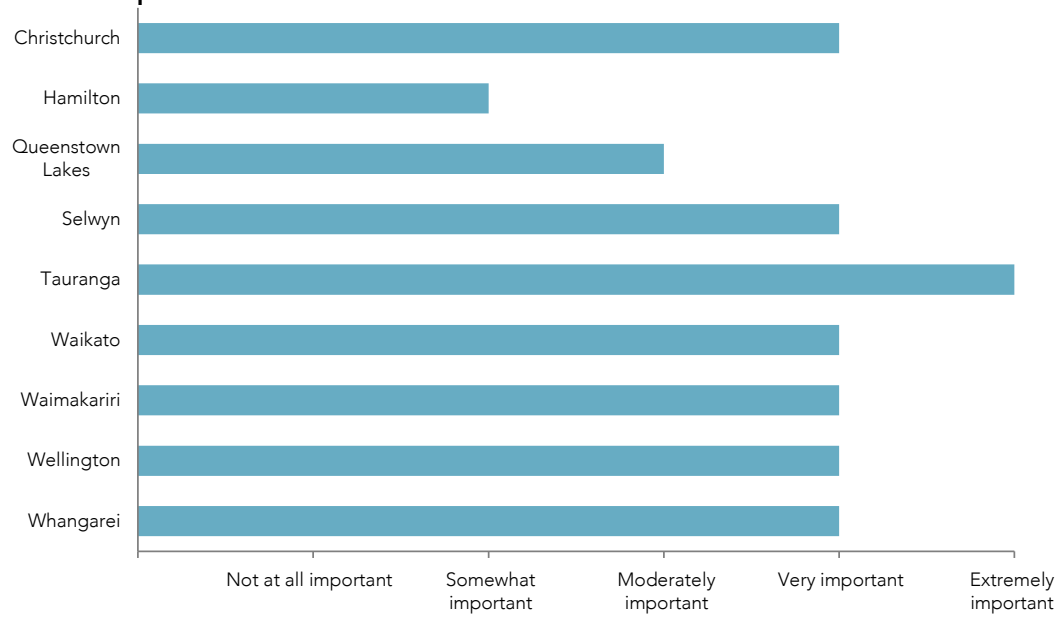
1. The capital goods price index estimates the overall price change in a range of physical assets. Civil construction includes mainly infrastructure-related construction such as roads, electrical works and pipelines.

Alongside concerns about escalating costs, councils also report that recovering the costs associated with growth-related infrastructure can be difficult. The New Zealand Institute of Economic Research (NZIER) (2015a) surveyed the high-growth councils that are the focus of this inquiry and asked how important the following factors have been in influencing the rate of residential development in the community:

- supply of land;
- cost of new infrastructure;
- density restrictions;
- development contributions;
- city budget constraints;
- city council or citizen opposition to growth; and
- length of review process for city and district planning.

Responses varied significantly across the nine councils that responded to the survey. But, on average, the most influential factor was the cost of new infrastructure, which most councils reported had been either "very important" or "extremely important". The two exceptions were Queenstown Lakes District Council (moderately important) and Hamilton City Council (somewhat important) (Figure 9.2).

Figure 9.2 How important is the cost of new infrastructure in influencing the rate of residential development?



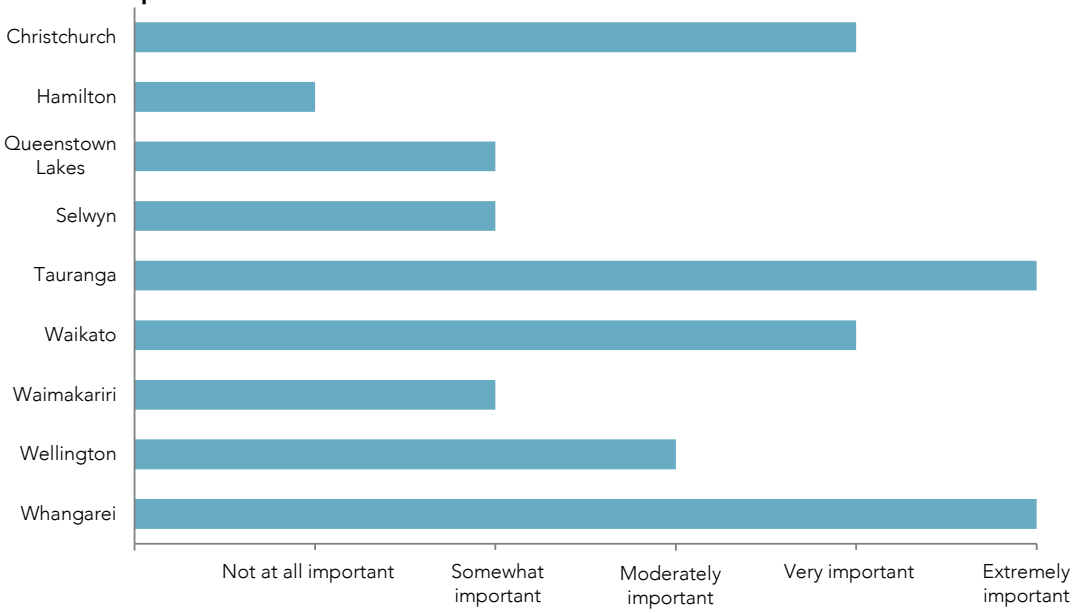
Source: NZIER, 2015a.

Note:

1. This figure shows responses regarding the development of standalone dwellings. See NZIER (2015a) for responses regarding townhouses and apartments.

Responses regarding the importance of city budget constraints are also relevant to a council's ability and willingness to roll out growth-related infrastructure. Whangarei District Council and Tauranga City Council both reported that budget constraints were extremely important, while Hamilton City Council reported that budget constraints were not at all important (Figure 9.3).

Figure 9.3 How important are city budget constraints in influencing the rate of residential development



Source: NZIER, 2015a.

Note:

1. This figure shows responses regarding the development of standalone dwellings. See NZIER (2015a) for responses regarding townhouses and apartments.

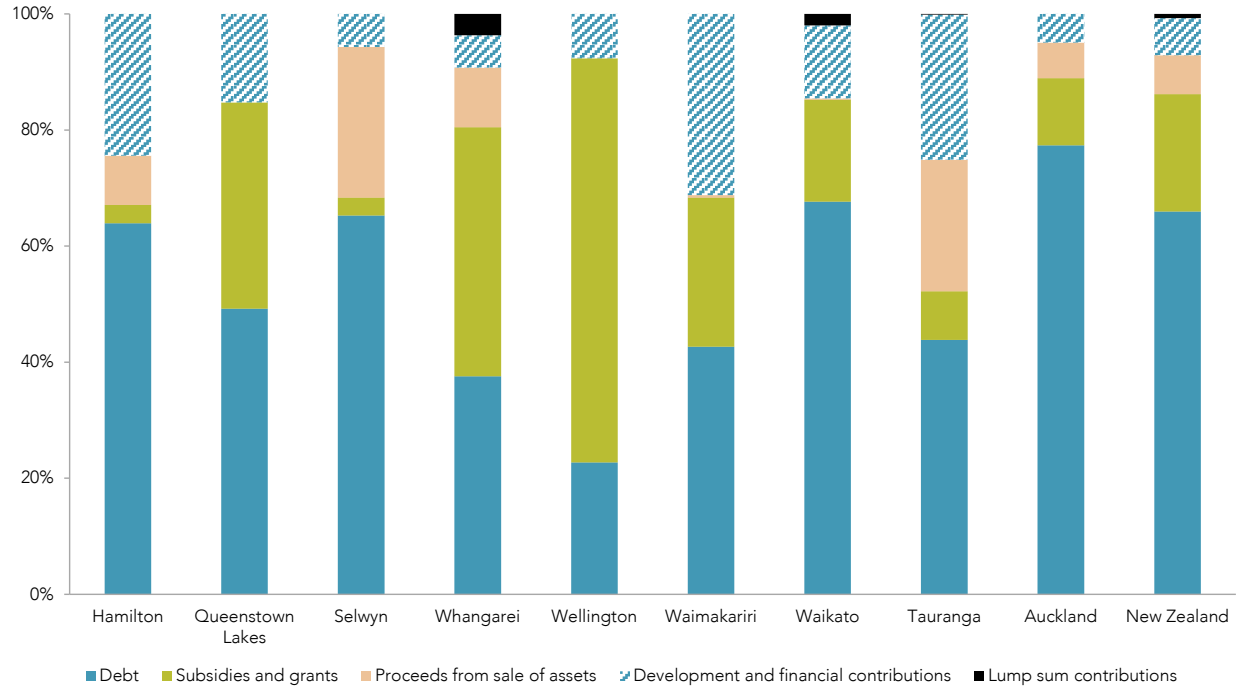
9.3 How do local authorities finance investment in infrastructure?

This section discusses councils' main sources of finance, the relative merits of pay-as-you-go financing and borrowing, various features of councils' approach to debt, and regulations that affect their ability to borrow. It also reports some assessments of councils' approach to debt.

Sources of finance

Financing refers to the way in which debt and/or equity is raised for the delivery of an infrastructure project (Infrastructure Finance Working Group, 2012). Local authorities can finance investment in infrastructure on a pay-as-you-go basis (eg, through current government revenue, grants or accumulated savings) or through borrowing. Figure 9.4 shows the sources of finance used by the growth councils for capital projects, as indicated in their long-term plans (LTP).[45] For most councils, debt is the most important source of finance. The significantly higher share of capital funding from subsidies and grants for Wellington City Council is explained largely by a grant from central government to upgrade social housing.

Figure 9.4 Sources of capital in high-growth councils, 2013



Source: Productivity Commission analysis of Department of Internal Affairs Local Government Financial Data.

Note:

1. The data for Auckland Council includes council controlled organisations (CCOs). CCO data is not included for other councils.

Pay-as-you-go versus borrowing

With pay-as-you-go financing, governments purchase or construct only those capital assets made possible by financial resources currently at their disposal, such as cash in the capital budget, savings and reserve funds, or other cash on hand. Pay-as-you-go financing essentially takes current revenues – taxes, user charges, and grants collected in the current fiscal year – and applies them directly to current capital expenditures for the same year.

Proponents of pay-as-you-go financing argue that it avoids interest costs, supports local government's fiscal flexibility, and maintains their borrowing capacity. However, because pay-as-you-go limits investment essentially to what can be funded from cash in hand, it is likely to lead to large projects being delayed. But the main concern with the approach is that it is inconsistent with intergenerational equity. If pay-as-you-go is employed for assets with a long lifespan, the current generation of users bear all the costs. Future

[45] Christchurch City Council was not included in this dataset as it was granted an exemption from producing a LTP until 2013, pursuant to Canterbury Earthquake (Local Government Act 2002) Order (No 2) 2011.

generations pay nothing and yet still enjoy the benefits (although future generations may be required to pay for the next investments in infrastructure that will primarily benefit subsequent generations):

> Funding the asset with a one-off allocation from recurrent revenue means that it is paid for by current taxpayers, but provides a benefit to taxpayers over the life of the asset. (Dollery, Crase & Johnson, 2006, p. 281)

These considerations suggest that pay-as-you-go financing should be reserved for assets where the benefits accrue primarily to current users:

> …pay-as-you-go is most appropriate for infrastructure with a short life span and a short payback period. It is best suited for smaller assets with low up-front costs that can be easily covered by current revenue, and where the assets can be quickly completed or commissioned. Pay-as-you-go is also suited for technological infrastructure that runs a high risk of becoming obsolete within a relatively short time frame. Examples of such assets include the municipal vehicle fleet, communications and IT, and other specialized equipment. …
>
> Pay-as-you-go transfers from operating to capital are preferred for ongoing annual expenditures that are stable and will increase slowly over time. Examples of recurrent expenditures include such things as the continual maintenance, repair, or upgrading of sidewalks, roads, streetlights, and parks. Pay-as-you-go should generally be avoided for non-recurrent infrastructure such as the construction of buildings, libraries, museums, and other large fixed assets. (Ploeg, 2006, pp. 37–39)

Borrowing enables the cost of assets to be matched with their benefits over their life. This promotes intergenerational equity, since those who benefit from the infrastructure contribute to its cost. Other benefits of debt finance include:

- councils can deliver infrastructure earlier than they otherwise could have;
- there is less need to divert funds from internally generated renewal and maintenance budgets to capital expenditure;
- local governments' steady and secure income from rates can be used to meet debt-servicing obligations and to secure debt facilities; and
- it can facilitate institutional investment, such as from superannuation funds, which brings with it additional rigour and discipline (Ernst & Young, 2012).

The total debt of all local authorities in 2014 was about $11.2 billion, of which around 74% ($8.35 billion) sat with the 10 high-growth councils that are the focus of this inquiry (Statistics New Zealand, 2015).

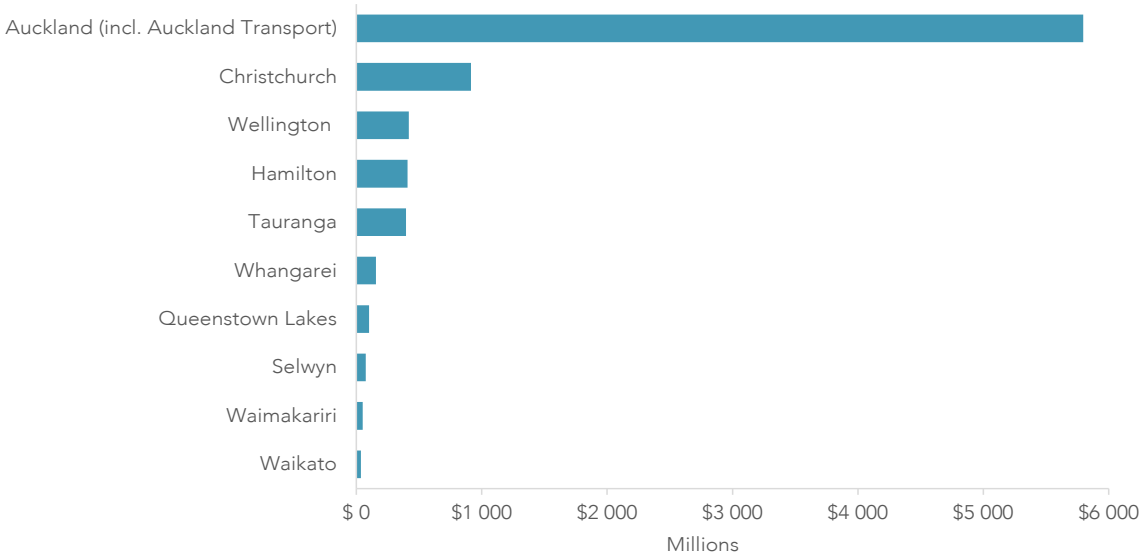
F9.1 Debt is an important source of finance for urban infrastructure in high-growth areas. It enables councils to deliver infrastructure when it is most needed and for infrastructure costs to be spread over the life of the asset. This means that those who benefit from the infrastructure contribute to paying for it.

Councils' approach to debt

The Office of the Auditor-General (OAG) points out that most authorities adhere to the principle that debt should not be used to fund operations. Usually they use debt to fund new assets to meet demand or to increase levels of service, rather than to fund renewals (OAG, 2012a). The Shand Report (2007) also found that councils generally use debt to finance investment in long-lived infrastructure that will generate benefits for current and future generations. Debt financing enables councils to spread the investment costs across those people who benefit or make use of the investment. It also enables the delivery of services or infrastructure that would not be possible to deliver using operational income (Shand Report, 2007).

Total debt levels vary significantly across the high-growth councils (Figure 9.5), but are much more consistent when measured by head of population (Figure 9.6).

Figure 9.5 Local authorities' total debt, 2014

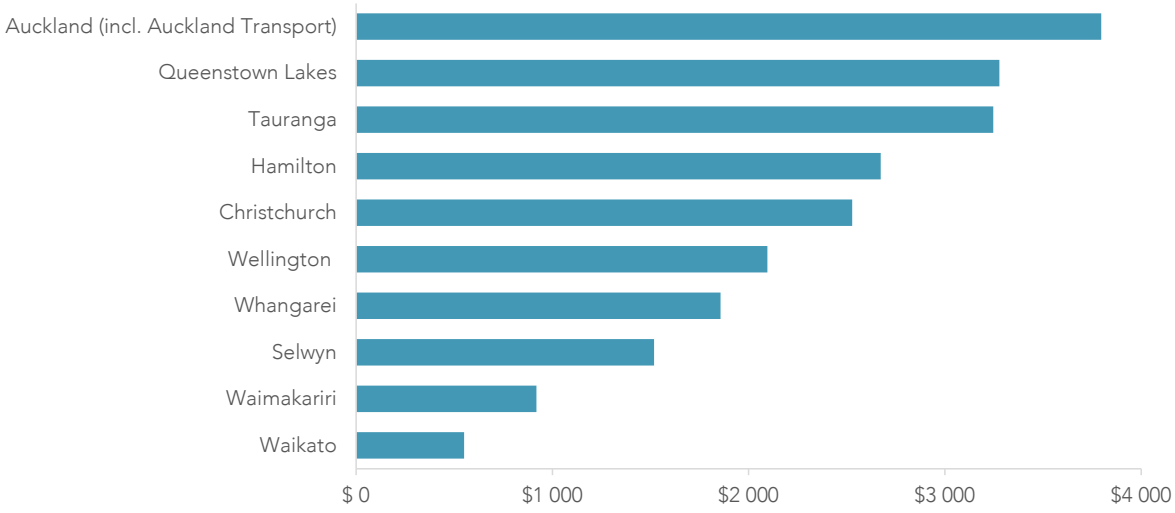


Source: Statistics New Zealand, 2015.

Note:

1. Includes current and term debt for the year ending June 2014.

Figure 9.6 Total debt by head of population, 2014



Source: Statistics New Zealand, 2015.

Councils' 2012 to 2022 LTPs show that gross debt for local authorities is expected to rise to $18.7 billion in 2021/22 (OAG, 2012a). Much of this growth is attributable to the forecast growth of Auckland Council's debt to $12.5 billion in 2021/22, largely to finance infrastructure to cater for the city's rapid population growth. Total debt for all other local authorities is forecast to increase from $5 billion in 2011/12 to $6.2 billion in 2017/18 and then drop to $6.0 billion in 2021/22 (OAG, 2012a).

Assessments of councils' debt situations

Several reports have examined council debt, and none have found serious issues (Box 9.1).

Box 9.1 **Assessments of local authorities' use of debt**

In 2007, the Shand Report concluded that

> … local authorities generally have very low levels of debt. In view of the benefits of debt financing mentioned above it is surprising that debt levels across the sector are so low…
>
> The Panel considers that there are very good reasons for local authorities to make greater use of debt to finance long-life investments. Doing so may advance the date at which the infrastructure

> can be provided and spreads the capital cost more equitably across the generations that benefit from that service. Moreover, central and local authorities are generally low-risk debtors so they enjoy low interest rates in debt markets. (Shand Report, 2007, pp. 155–56)

The OAG's 2012 review of councils' LTPs found that overall levels of debt were forecast to increase during the 10 years of the plan. But the review did not raise concerns about the financial prudence of local authorities' forecasts:

> Levels of debt are forecast to nearly double during the 10-year period of the LTPs, reaching $18.7 billion in 2021/22. Auckland Council, Greater Wellington Regional Council, and a small group of other local authorities serving our largest urban communities plan to use increased levels of debt to fund large infrastructure projects. Their LTPs forecast doing this within reasonable financial limits and expectations of income. (OAG, 2012a, p. 11)

Local Government New Zealand engaged Grant Thornton (2014) to produce a proxy for council financial health based on 2013 data. The approach sought to replicate the factors that a commercial lender would consider when deciding whether to approve a loan. The proxy was created using five metrics: debt levels relative to asset base; debt levels to population; ability to repay debt; ability to cover interest obligations; and population forecasts. Across the five metrics, all high-growth councils that are the focus of this inquiry were found to be "sound" or higher. Among New Zealand's other councils, four fell narrowly below the "sound" rating.

The New Zealand Institute of Economic Research (2012) examined aggregate debt levels for local government using the ratio of debt to existing assets, and the cost of servicing debt as a proportion of revenue. They concluded that the local government gearing ratio of 6.8% does not appear worryingly high when compared to the ratio for central government and the property sector listed on the New Zealand Stock Exchange. They also concluded that the ratio of revenue being spent on debt servicing is well within two suggested prudent levels.

Grant Thornton (2014) notes that water and wastewater infrastructure projects undertaken by Kaipara District Council and Waitomo District Council created major financial challenges in those districts. Both councils have implemented measures aimed at gradually reducing debt and improving their financial position. Notwithstanding these isolated examples, local authorities' use of debt shows no evidence of systemic problems.

F9.2 Recent assessments have not identified serious concerns regarding councils' use of debt.

Options for raising debt

Councils' ability to use debt depends on their capacity to access financial markets. Lenders will be more willing to finance proposals from councils that have applied rigorous internal project assessment and have prioritisation processes intended to lead to the timely delivery of infrastructure that achieves councils' objectives without compromising financial sustainability (Ernst & Young, 2012).

Local authorities have three main options for raising finance:

- *Banks and other financial institutions* – Since 1996, local authorities have been able to borrow directly from banks (previously, councils could only borrow from the Local Government Loans Board).
- *Local bonds* – local authorities may issue local bonds. For example, Auckland Council has five issues of fixed-rate retail bonds listed on the NZX Limited Debt Market (Auckland Council, 2015a).
- *The New Zealand Local Government Funding Agency (LGFA)* – The LGFA was established in 2011 to raise debt on behalf of local authorities on more favourable terms to them than if they raised the debt directly (LGFA, n.d.). The LGFA is a council controlled organisation (CCO) and is jointly owned by the

central government (20% shareholding) and 30 councils (80% shareholding). Other than central government, each shareholder must be a guarantor.

While local authorities can approach the financial markets directly, the large variation in their size is likely to be reflected in varying capacities to access external sources of finance. The LGFA is now funding 43 of New Zealand's authorities and is the largest issuer of New Zealand debt securities, after the Government (Gibson, 2015).

Political pressures concerning the use of debt

In addition to commercial constraints, community attitudes and perceptions can also constrain councils' borrowing. Councils reported that they are faced with strong community opposition to debt due to a perception that future repayment obligations will result in rates increases.

Several submissions noted community pressure on councils to constrain debt:

> … a lot of Councillors use "reduce debt" as one of their election platforms. (Carrus Corporation, sub. 10, p. 5)

> … debt reduction was the primary election platform that the majority of the Tauranga City Council Councillors stood on in the 2013 Local Government elections. (Te Tumu Landowners Group, sub. 40, p. 13)

Palmerston North City Council notes that the pressure to constrain debt levels comes from both communities and Government:

> The Productivity Commission needs to recognise and appreciate that significant public and Government scrutiny has been placed on local government debt and rates increases. (Palmerston North City Council, sub. DR95, p. 4)

Regulatory limitations on the use of debt

Council debt levels are also moderated by the Local Government (Financial Reporting and Prudence) Regulations 2014. These regulations require local authorities to report in their Annual Plans, Annual Reports and LTPs on their planned and actual performance against a number of financial performance benchmarks (Table 9.1). The regulations were introduced to assist in identifying local authorities where further enquiry is needed regarding their financial management; and to promote prudent financial management by local authorities (DIA, 2013a).

Table 9.1 Local authority financial prudence benchmarks

Benchmark	A local authority meets the benchmark if:
Rates affordability	• Actual or planned rates income for the year ≤ quantified limits on rates income set by the authority in its financial strategy • Actual or planned rates increases for the year ≤ quantified limits on rates increases set by the authority in its financial strategy
Debt affordability	Actual or planned borrowing for the year is within the quantified limits on borrowing set by the authority in its financial strategy
Balanced budget	Revenue for the year exceeds operating expenses
Essential services	Capital expenditure on network services for the year ≥ depreciation on network services
Debt servicing	• Borrowing costs for the year ≤ 10% of its revenue • For high-growth local authorities, borrowing costs for the year ≤ 15% of revenue

Benchmark	A local authority meets the benchmark if:
Debt control	Actual net debt at the end of the year is ≤ planned net debt in the LTP
Operations control	Actual net cashflow from operations for the year ≥ planned net cashflow from operations

Source: Local Government (Financial Reporting and Prudence) Regulations 2014.

Notes:

1. "Revenue" in the balanced budget and debt-servicing benchmarks excludes development contributions, financial contributions, vested assets, gains on derivative financial instruments, and revaluations of property, plant or equipment.
2. "Operating expenses" in the balanced budget benchmark excludes losses on derivative financial instruments and revaluations of property, plant or equipment.
3. A high-growth local authority means a local authority whose population is expected to grow at or above the national population growth rate according to the projections of Statistics New Zealand.

The Department of Internal Affairs (DIA) examines any local authority that fails to comply with the benchmarks. The Minister of Local Government may intervene in the affairs of an authority if non-compliance constitutes a "significant problem" that "will have actual or probable adverse consequences for residents and ratepayers of the local authority" (DIA, 2013a).

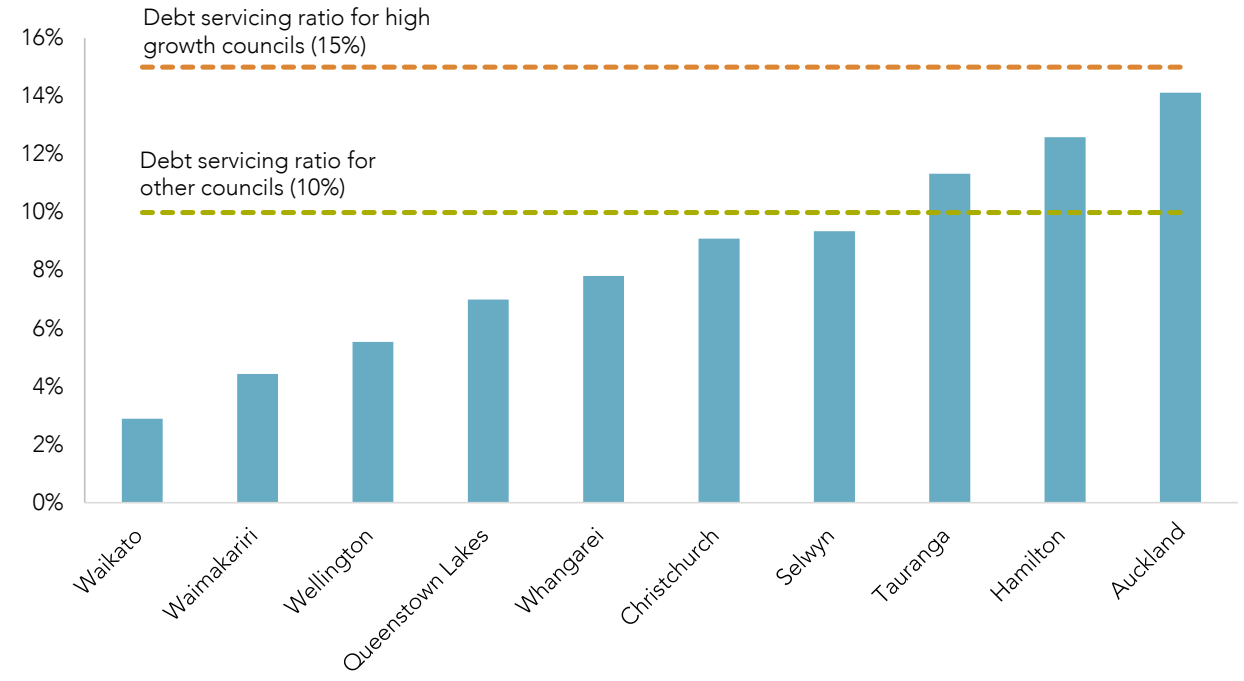
The Minister can choose from a range of different responses if they perceive that a significant problem exists. These range from relatively light-handed options, such as requesting information about the problem and the steps being taken to deal with it; to stronger interventions, such as appointing a Commission to perform and exercise a council's responsibilities, duties and powers; or dismissing the council and calling a local election (DIA, n.d.).

What is the impact of the financial reporting and prudence regulations?

The regulations introduced a debt servicing ratio of 15% for high growth councils and 10% for all other councils. High growth councils are defined as any council whose population is expected to grow at or above the national population growth rate projected by Statistics New Zealand. All of the councils that are the focus of this inquiry are classified as high growth, except for Wellington City Council and Whangarei District Council.

Most of the councils that are the focus of this inquiry are well within their debt-servicing benchmarks (Figure 9.7), with Tauranga (11.3%), Hamilton (12.6%) and Auckland (14.1%) the only authorities where interest expenditure exceeded 10% of revenue in 2014.

Figure 9.7 Local authorities' interest expenditure as a share of total revenue, 2014



Source: Statistics New Zealand, Local Authority Financial Statistics, 2015.

LGNZ notes that the debt-servicing ratio is not currently an issue for most councils, but that for those councils that do have a high debt profile it limits their capacity to support growth:

> Nationwide, council debt is low and well within prudent levels, but this is not always the case… If a council has a high debt profile, it will inhibit that council's ability to bring forward capital works to support new residential growth. (LGNZ, sub. 54, p. 9)

Inquiry participants based in Tauranga and Hamilton suggest that the *Financial Reporting and Prudence* regulations are limiting councils' ability to provide infrastructure to support urban growth:

> The Council's ability to provide infrastructure faster to facilitate development is constrained because of … the need to balance this investment against management of the city's debt, including debt to revenue ratio, maintaining our credit rating, and maintaining affordable rate increases [and] [t]he Council's obligations to comply with the Local Government (Financial Reporting and Prudence) Regulations. (Hamilton City Council, sub. 70, pp. 8–9)

> Hamilton City Council's … debt limits are such that providing infrastructure to new areas of land in advance is not feasible. (Future Proof, sub. 39, p. 7)

> Councils are constrained by revenue / debt ratios and their impact on Council credit ratings. Together with political pressure to keep rates and debt levels low a constant tension exists between providing infrastructure for the growth of our cities and communities and meeting the expectations of current communities. (Te Tumu Landowners Group, sub. 40, p. 13)

> There is plenty of evidence to demonstrate local authority debt levels are acting as a barrier to the provision of infrastructure for housing in rapidly growing areas. (Tainui Group Holdings, sub. 53, p. 3)

LGNZ suggests that the benchmarks are conservative and should be amended:

> The 15% benchmark for growth councils is conservative. We note that the Local Government Funding Agency accepts a debt servicing ratio of 25% of revenue as prudent, for their purposes. We believe a higher benchmark, such as 20% of annual revenue, is prudent for growth councils (particularly since income from development and financial contributions is not considered as revenue). (LGNZ, sub. DR130, p. 12)

Hamilton City Council also supported a review of the *Financial Reporting and Prudence* regulations and noted that debt levels constrain the council's ability to provide infrastructure for housing:

> …the funding of growth infrastructure remains Hamilton's biggest issue. Without additional funding sources available to HCC, debt becomes a serious constraint on the ability of Council to provide infrastructure to service land for housing. (Hamilton City Council, sub. DR-114, p. 1)

Overall assessment on debt financing

Good reasons exist for councils to use debt to finance growth-related infrastructure where their pricing enables them to recover the full costs, and recent reviews of councils' debt use suggest that the approach to debt is generally sound. Equally, good reasons exist to ensure that councils use debt in a financially prudent way. Although only just introduced, the reporting requirements introduced in the *Financial Reporting and Prudence* regulations appear to strike a reasonable balance between these competing notions.

For most councils, political pressure is the main restriction on their use of debt. A small number of high-growth councils are approaching the debt-servicing threshold established in the *Financial Reporting and Prudence* regulations. Financing options for these councils are more limited and it is important that the benchmarks are not unduly restricting infrastructure investment among high-growth councils that have the greatest need for infrastructure financing. The design of the regulations includes a number of monitoring and evaluation requirements. These measures seek to monitor effectiveness and to identify any flaws in the regulations that need correction:

> The Department [of Internal Affairs] will gather comprehensive data from all local authority annual reports and long-term plans for analysis purposes. In addition to using that data to assess whether financial prudence issues exist in any particular local authority, the Department will use this work to evaluate how the sector views the benchmarks and how effective they are in identifying financial prudence issues.

> The Department is also in regular communication with LGNZ, SOLGM [Society of Local Government Managers], and the Office of the Auditor-General. The Department will seek feedback from these organisations about the effectiveness of the regulations and whether there are any design flaws in the regulations that need correction. The Department expects to carry out that assessment after the publication of the 2015/25 local authority long-term plans. (DIA, 2013b, p. 25)

This monitoring approach gives DIA scope to assess the effect that the debt-servicing benchmark is having on high-growth councils and their ability to invest in infrastructure to support growth. Through its monitoring activities, DIA should maintain a dialogue with councils to ensure that the impact and any consequences of the regulations are well understood. In particular, DIA's monitoring and evaluation of the regulations should consider whether a 15% debt-servicing ratio is an appropriate benchmark for high-growth councils. Evaluation should also seek to understand how the regulations are affecting the perceptions and political appetite for debt. As discussed above, debt is often the best option for financing long-lived infrastructure. So it would be problematic if the *Financial Reporting and Prudence* regulations were encouraging a "less is better" mentality regarding debt financing.

R9.1

The Department of Internal Affairs' monitoring of the *Financial Reporting and Prudence* regulations should:

- assess how the regulations affect councils' ability to provide infrastructure to support growth; and
- review whether 15% is the most appropriate debt-servicing ratio for high-growth councils.

9.4 How do local authorities fund infrastructure?

Councils can access a variety of sources of operational and capital revenue, to fund infrastructure services (Figure 9.8). These revenue sources can pay for both operating costs and also the costs of any debt attached to infrastructure assets. Total revenue across all local authorities in 2014 was $14.3 billion. This included $4.7 billion in revenue generated by valuation changes and other non-operating income.

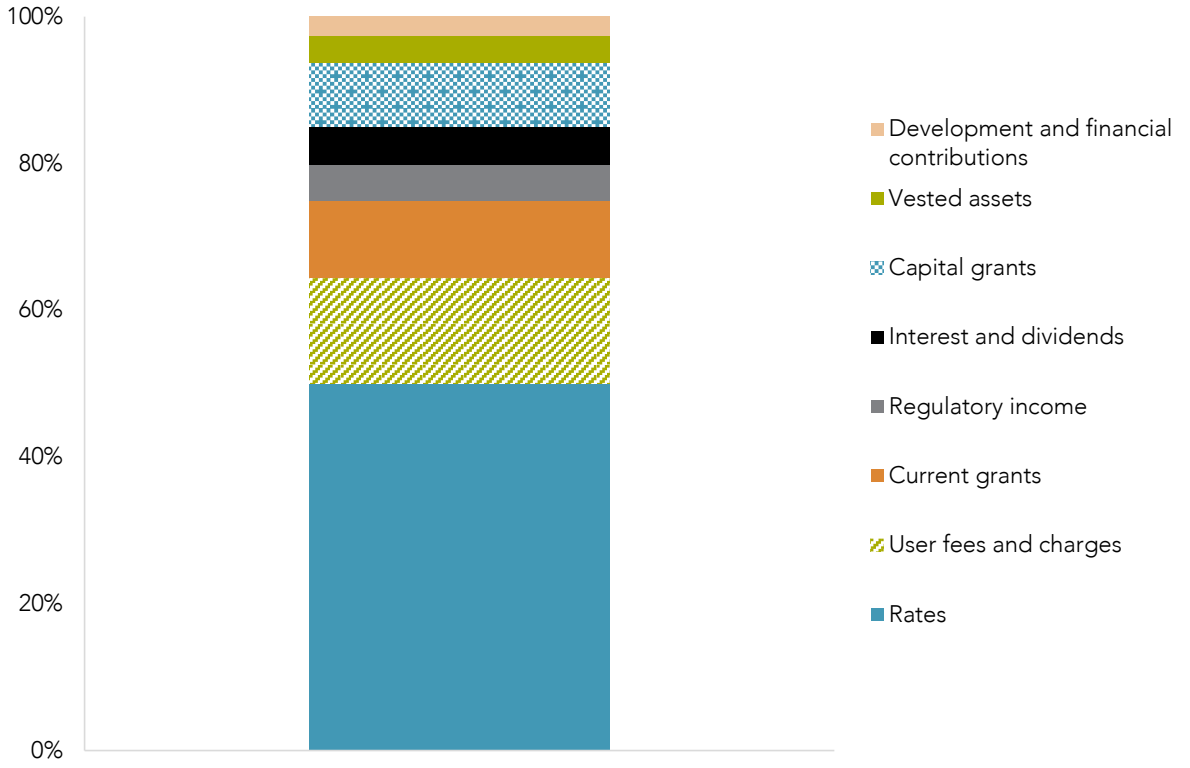
Operational revenue

- *Rates* – General rates are levied based on the value of property and are used for services that benefit the local community. Local authorities can also employ other rating tools, including uniform annual general charges and targeted rates (Shand Report, 2007). Rates are the largest source of council income, generating $4.8 billion in 2014 (Statistics New Zealand, 2015).
- *Current grants* – Central government provides these grants to support council operations, particularly transport (via the New Zealand Transport Agency). Another example is the Ministry of Health's Drinking-water Assistance Programme, which includes subsidies to help small rural communities establish or improve their drinking-water supplies.
- *User fees and charges* – Local authorities levy charges to contribute to the cost of some facilities (such as swimming pools). Also included in this category is revenue generated from water metering.
- *Regulatory income and fuel tax* – Regulatory income includes fees collected to cover the cost of supplying regulatory services, such as building consents and liquor licensing fees. Local authority fuel tax is levied on petrol and other fuels at between 0.33 cents and 0.66 cents a litre and is distributed to local authorities by central government (MBIE, 2015).
- *Interest and dividends* – Many local authorities, particularly regional councils, own profit-generating businesses such as ports, or have investments in financial assets such as bonds and shares.

Capital revenue

- *Vested assets* – Vested assets are assets that are transferred to a local authority as a result of a subdivision or development.
- *Development and financial contributions* – Development and financial contributions are charges associated with land-use development. They can be imposed to avoid or mitigate adverse environmental effects, or to reflect the impact of a development on infrastructure use.
- *Capital grants* – Capital grants are funding from central government to support capital projects.

Figure 9.8 Summary of local government revenue sources, 2014



Source: Statistics New Zealand, 2015.

Note:

1. Excludes income from valuation changes and other non-operating income.

While development and financial contributions account for a relatively small share of total local government revenue, they are an important tool for funding growth-related infrastructure. The following section examines the use of development contributions.

9.5 Development contributions

Development and financial contributions are charges associated with land-use development. They can be imposed to avoid or mitigate adverse environmental effects, or to reflect the impact of a development on infrastructure use (Box 9.2).

Box 9.2 **Development contributions and financial contributions**

Development contributions were introduced in 2002 to allow councils to recover capital expenditure associated with facilities such as reserves, three waters infrastructure, and transport and community infrastructure required to support growth. Development contributions can only be charged to fund the portion of new infrastructure that is related to growth. They cannot be used to fund:

- non growth-related level of service or infrastructure quality upgrades;
- maintenance;
- renewal of infrastructure; or
- infrastructure operating and operational costs, such as salaries and overheads (DIA, 2013c).

Councils are required to set out a development contributions policy that explains how contributions are calculated, and their underlying assumptions.

Financial contributions

The financial contributions regime was introduced when the Resource Management Act (RMA) was enacted in 1991, to provide local authorities with a further method to avoid, remedy and mitigate adverse environmental effects. Financial contributions can take the form of money or land and must promote the sustainable management of natural and physical resources. They may be applied to fund capital expenditure on similar assets to development contributions, but cannot be used to fund the same expenditure for the same purpose, or to fund operating spending.

The role of development contributions in enabling growth

Several inquiry participants noted that development contributions are an efficient way to recover the costs associated with servicing new developments:

> Development contributions are a fair and effective funding mechanism to ensure that developers pay towards the growth related costs associated with the provision of infrastructure… Development contributions, like general and targeted rates, fees and charges and loans are a way in which to prudently fund capital works. (Waikato District Council, sub. 12, p. 20)

> Development and financial contributions are used to recoup the costs of servicing land and is considered to be efficient. (Western Bay of Plenty, sub. 36, p. 7)

The Commission's review of infrastructure charges in its *Housing affordability* inquiry (2012a) found that properly structured and administered infrastructure charges help to manage overall infrastructure costs by signalling to developers the costs of building in different locations. The Commission concluded that "the case for development contributions is strong. Linking payment made for some types of additional infrastructure to the benefits received helps to ensure that investment reflects its opportunity cost and that locational decisions are efficient" (NZPC, 2012a, p. 126).

In addition to encouraging greater efficiency regarding the location of development, international research on infrastructure charges finds that they play an important role in enabling the provision of important infrastructure to support growth. Burge, Nelson and Matthews (2007) find that by shifting part of the costs associated with growth to those that are creating growth, infrastructure charges may increase community acceptance of growth. Burge and Ihlanfeldt (2006) make a similar point, noting that, where the costs of development are not fully recovered, existing communities may seek to prevent development through prohibitive zoning. Infrastructure charges may cause communities to willingly zone more of their undeveloped land for residential purposes, meaning that developers are not faced with costly and uncertain rezoning processes.

As discussed in Chapter 3, existing homeowners have a strong influence in local government elections and in consultation processes regarding regulatory decisions that affect the supply of land for housing. Existing homeowners have an incentive to oppose development that involves council expenditure on infrastructure that does not benefit them but will be recovered through general rates. Western Bay of Plenty District Council (sub. 36, p. 7) noted that if they removed their development contribution regime and instead recovered the costs of growth through general rates, "ratepayers would face a 25% increase in their rates bill". This approach would surely create a strong incentive among existing communities and their elected officials to resist new developments. Because development contributions recover the costs of trunk

infrastructure needed to support new development directly from those that benefit, they remove one potential avenue by which existing communities might oppose new development.

F9.3 Development contributions play an important role in enabling the provision of essential infrastructure to support urban growth. Properly structured charges help to ensure that investment reflects its opportunity cost and that locational decisions are efficient. By providing a way to recover the costs of growth from those that benefit, development contributions remove some of the reason why ratepayers oppose growth.

The ability for development contributions to enable development and to reduce community objections to development will be compromised if development contributions do not recover the full costs of trunk infrastructure necessary to support growth. A number of inquiry participants suggested that councils often face pressures from the development community to reduce development contributions. For example:

> Auckland Councils 'per lot' contribution was seriously under calculated meaning that there was a negative cascade effect on all parts of the council that rely on funding through growth DCs [Development Contributions] for their projects… Too often developers react aggressively to their DC bill and council agreement to reduce the bill is common. This is not a sustainable approach. (A L Christensen, sub. 7, p. 2)

R9.2 Development contributions should fully recover the costs of trunk infrastructure needed to support growth.

Development contributions should reflect costs

As discussed in Chapter 8, infrastructure costs can vary significantly depending on the dwelling location and type. For development contributions to encourage efficient urban growth, it is important that charges are structured in a way that reflects the true infrastructure costs of development in different locations, and of different development typologies. As discussed in the previous chapter, more sophisticated asset management programmes can help councils to build a better understanding of these costs.

The Local Government Act 2002 Amendment Act 2014 introduced a set of new development contributions principles (Box 9.3).

Box 9.3 **Development contributions principles**

Section 197AB of the LGA sets out a new set of principles that provides direction to councils about what development contributions can be used for and how they should be applied:

1. development contributions should only be required if the effects or cumulative effects of developments will create or have created a requirement for the territorial authority to provide or to have provided new or additional assets or assets of increased capacity
2. development contributions should be determined in a manner that is generally consistent with the capacity life of the assets for which they are intended to be used and in a way that avoids over-recovery of costs allocated to development contribution funding
3. cost allocations used to establish development contributions should be determined according to, and be proportional to, the persons who will benefit from the assets to be provided (including the community as a whole) as well as those who create the need for those assets
4. development contributions must be used:
    - for or towards the purpose of the activity or the group of activities for which the contributions were required; and

- for the benefit of the district or the part of the district that is identified in the development contributions policy in which the development contributions were required

5. territorial authorities should make sufficient information available to demonstrate what development contributions are being used for and why they are being used
6. development contributions should be predictable and be consistent with the methodology and schedules of the territorial authority's development contributions policy under sections 106, 201, and 202
7. when calculating and requiring development contributions, territorial authorities may group together certain developments by geographic area or categories of land use, provided that—
   - the grouping is done in a manner that balances practical and administrative efficiencies with considerations of fairness and equity; and
   - grouping by geographic area avoids grouping across an entire district wherever practical.

Source: Local Government Act 2002, s. 197AB.

Application of these principles should go a long way toward ensuring that councils' approach to development contributions encourages efficient locational decisions. In particular, principle (g) suggests that when calculating contributions councils may group together multiple developments by geographic area (eg, developments in a certain stormwater catchment) or for certain categories of development. Principle (g) discourages councils from applying uniform charges across an entire district because such an approach would fail to recognise localised circumstances or characteristics that may materially increase or reduce the cost of infrastructure requirements (DIA, 2014b). Principle (d) also implicitly reinforces the idea of a link between the geographic location of development and the requirement for infrastructure.

Some submissions suggested that current development contributions do not accurately reflect different infrastructure costs associated with different dwelling types:

> New Zealand needs to build smaller dwellings on smaller sections. The size of Development Contributions (DCs) requirements in some areas of New Zealand do not encourage development of smaller dwellings. Excessive DCs increase the cost of sections and encourage developers to build larger rather than smaller homes. (New Zealand Property Investors Federation, sub. 63, pp. 3–4)

> Although it may require changes in legislation, development contributions calculated as a percentage of cost or value could encourage the construction of smaller lower cost units. (New Zealand Housing Foundation, sub. 69, p. 13)

Most councils vary development contributions depending on floor size, on the grounds that smaller dwellings are likely to accommodate fewer occupants, and so are likely to put a lighter demand on some types of upstream infrastructure. For example, Auckland Council's draft development contributions policy has a variable "household unit equivalent" (HUE) depending on the size of the dwelling:

- 0.8 HUE per unit for dwellings up to 99m^2;
- 1 HUE per unit for dwellings between 100m^2 and 249m^2; and
- 1.2 HUE per unit for dwellings 250m^2 and over (Auckland Council, 2015b).

While these unit of demand calculations do afford lower costs for smaller dwellings, some inquiry participants suggested that they are not sufficiently nuanced, and that a 240m^2 dwelling is likely to create a significantly higher demand for services than a 110m^2 dwelling (New Zealand Housing Foundation, sub. 69).

The Commission's draft report recommended that development contribution policies should include information about the relationship between dwelling floor area and the cost of providing infrastructure services, and if smaller dwellings impose lower costs on the infrastructure network, this should be reflected in lower charges. LGNZ supported this recommendation but "only to the degree that floor area is a relevant

consideration when setting development contributions" (LGNZ, sub. DR130, p. 12). Several councils noted that floor area is not always the best factor on which to base development contributions:

> The approach TCC takes is based on the number of bedrooms in a dwelling rather than dwelling floor area. Through our past research we found that there is a reasonably close relationship between infrastructure demand and the household occupancy rate, and that the number of bedrooms is a better proxy for household occupancy than dwelling floor area. By the household occupancy rate we mean the number of people living in a dwelling. TCC's approach is to charge lower development contribution charges for one and two bedroom dwellings than for larger 3+ bedroom houses. We charge 50% of the full charge for a one bedroom dwelling and 65% for a two bedroom dwelling. (Tauranga City Council, sub. 102, p. 23)

> Considering options for reduced development contributions based on floor area is misleading, as it is the number of people likely to be occupying a dwelling that will impact on the network. (Waimakariri District Council, sub. DR108, p. 3)

> It is problematic to assume a direct correlation between floor area and demand for infrastructure… Floor area can be a useful basis for assessing development contributions for stormwater infrastructure demand. For other types of infrastructure other factors affect the demand. These include the number of residents, what a property is used for and how people use and access infrastructure services… The Council is undertaking more work in this area over the next year; to gain a greater understanding of the relationship between unit size and other determinates to demand, with a view to a more targeted approach to levying development contributions. (Christchurch City Council, sub. DR128, pp. 10–11)

The Commission accepts these points and agrees that a range of variables can affect likely demand for infrastructure services.

Auckland Council made the following point:

> The council does not support the recommendation that councils should include information in their development contributions policy about the relationship between floor area and the cost of providing infrastructure… The council already sets development contributions based on dwelling floor area and will provide on request the information on which this decision was reached. There is little value in adding more text to already lengthy contributions policy documentation. (Auckland Council, sub. DR135, p. 31)

Provided that the analysis underpinning development contributions is available on request, the Commission agrees this information need not be included in development contributions policies.

R9.3 Councils should underpin their development contributions policies with analysis regarding the relationship between relevant dwelling characteristics and the cost of providing infrastructure services. Where certain dwelling characteristics result in lower or higher costs on the infrastructure network, this should be reflected in the size of the development contribution.

How should costs not incorporated by development contributions be recovered?

Recent changes to the LGA (2002):

- focus development contributions toward infrastructure required by development, and avoiding charges for infrastructure not directly needed to service the development;
- introduce a process that allows developers who believe they are being charged incorrectly to challenge the charge through an independent commissioner; and
- provide greater transparency about how development contributions are being used (DIA, 2014b).

While some inquiry participants felt that it was too soon to comment on the effect of these changes (eg, sub. 10 and sub. 66), several submissions note that the amendments have reduced councils' ability to facilitate growth:

> Recent amendments to the LGA to reduce the purpose of Local Government and minimise what DCs [Development Contributions] can be used for has further constrained TLAs' ability to fund and provide good quality new housing areas. (A L Christensen, sub. 7, p. 2)
>
> Where they [changes to development contributions introduced in the LGA Amendment Act 2014] are having an effect is where it has become too costly for a Council to provide the necessary associated infrastructure out of rates income … it is probable that it will result in some residential development applications being turned down. (Auckland District Council of Social Services, sub. 22, p. 6)
>
> The recent changes to development contributions, reducing the range of infrastructure that can be included, will shift this portion of costs to ratepayers and is therefore a subsidy to development. (Greater Christchurch Urban Development Strategy, sub. 18, p. 8)

In particular, the changes introduce a narrower definition of community infrastructure. The cost of community and neighbourhood halls, playgrounds and public toilets can be recovered through development contributions. But the cost of other sorts of community infrastructure, such as libraries, swimming pools, and cemeteries can no longer be recovered through development contributions.

It is appropriate that developers pay for infrastructure that is required for a development to proceed. But broader community infrastructure does not fall into this category.

- Libraries, swimming pools and cemeteries are not critical pre-requisites for the construction of homes. While these may provide important amenity, if they are desirable they can be provided following residential construction. Chapter 8 discusses how general infrastructure investment can, and in some cases should, be phased and improved over time.
- Broader community infrastructure benefits more residents than just those in a new development. In particular, this infrastructure will benefit residents from a broader catchment than the new, narrow definition of community infrastructure. It is inequitable to impose costs on new dwellings if existing residents also benefit from this infrastructure.

Targeted rates are appropriate to fund broader community infrastructure

The Local Government (Rating) Act 2002 allows councils to set targeted rates to fund activities that benefit identifiable ratepayers.

A number of councils use targeted rates to fund various services or infrastructure investments (Box 9.4).

Box 9.4 **Examples of targeted rates**

Auckland Council levies targeted rates on a range of property categories, for a range of purposes, including:

- all properties that receive solid waste services;
- construction of road access (Riverhaven Drive) to properties formerly only accessible by boat;
- three properties that pay targeted rates to recover the cost of a floodgate restoration;
- rural Waitākere properties that pay rates for the operation of on-site sewerage management systems; and
- properties that received financial assistance to connect to existing wastewater schemes (Kumeu Huapai Riverhead, Point Wells and Jackson Crescent).

In Tauranga City, properties in a number of subdivisions (The Lakes, Papamoa Coast and Excelsa) pay targeted rates to operate wider roads, and more numerous gardens, reserves and streetlights in the area.

Christchurch City Council charges targeted rates for:

- properties connected to on-demand water reticulation, restricted water supply systems, and sewerage systems;
- properties benefitting from land drainage that pay targeted rates to cover operating costs;
- properties near new cycleway projects; and
- properties connected to the Governors Bay water and sewerage schemes (a legacy from the Banks Peninsula District Council; ratepayers were able to elect to pay as a lump sum or over time).

Across the country many other councils have levied targeted rates to seal roads, improve streetscapes, operate bus routes, construct water and wastewater facilities, or target ratepayers who are high users of services.

The Shand Report (2007) recommended that councils make greater use of targeted rates, noting that they are more efficient, equitable and transparent than uniform charges or business differentials for general rates.

The Commission sees significant potential for targeted rates to be used more frequently to fund broader community infrastructure, so that the cost is borne by the end beneficiaries of the investment, and able to be spread over a long timeframe. This approach ensures equitable allocation of costs among not only new dwellings, but existing dwellings that also benefit from the new infrastructure.

A number of district councils do this very well. For example:

- the Far North District Council uses targeted rates to partially cover the capital costs of a sports hub in Te Hiku, and swimming pools in Kerikeri and Kaikohe;
- Selwyn District Council levies a targeted rate in Rolleston to fund most of the costs of a local swimming pool; and
- Waikato District Council funds the operation of town halls in each ward on a separate targeted rate.

It is likely that it is easier for district councils to identify the community who benefits from community infrastructure, because communities are more likely to be geographically separated, than in city councils. But that does not mean that city councils could not do a better job of identifying the beneficiaries of broader community infrastructure (both new and existing dwellings) and levying a targeted rate to recover the costs of construction. City councils have greater internal capability to work out the beneficiaries of broader community infrastructure and apportioning the costs over all beneficiaries.

F9.4 Some types of community infrastructure cannot be recovered through development contributions. However considerable scope exists for councils to increase their use of targeted rates to recoup the costs of this infrastructure from the sections of the community that benefit.

Are development contributions subject to sufficient oversight?

Some inquiry participants raised concerns about development contributions. Most concerns are similar to those raised with the Commission during its inquiry into *Housing affordability* (NZPC, 2012a) and relate to issues such as overcharging, "double-dipping", a lack of transparency, complexity of development contributions policies, and unjustified increases in the amount charged:

> A lack of transparency has allowed territorial authorities to "double dip", for instance, by collecting capital income from existing users (such as depreciation collected through rates or user charges) for the express purpose of contributing to replace ageing assets, only to then charge the costs of infrastructure

> (particularly replacement) onto growth related development. (Property Council New Zealand, sub. 33, p. 18)
>
> Developers believe DC [development contributions] calculations lack transparency, science, or a fair estimate of the value of new infrastructure to existing households. (Registered Master Builders & Construction Strategy Group, 2015, p. 11)

The Commission's *Housing affordability* inquiry identified that councils face limited contestability when they set development contributions:

> Making it easier for developers and others to challenge the application of development contributions would increase contestability and consequently strengthen the incentives for councils to follow good practice when they set and implement these charges. (NZPC, 2012a, p. 149)

Since the publication of the *Housing affordability* inquiry, the LGA has been amended to introduce a process that enables development contributions to be challenged if they are seen as excessive (Box 9.5).

Box 9.5 **Objection process for development contributions**

The 2014 LGA Amendment Act introduced two mechanisms that allow a person to challenge the nature of development charges.

Under the first mechanism, territorial authorities are obliged to reconsider development contributions if this is requested:

> (1) If a person is required by a territorial authority to make a development contribution under section 198, the person may request the territorial authority to reconsider the requirement if the person has grounds to believe that—
>
> (a) the development contribution was incorrectly calculated or assessed under the territorial authority's development contributions policy; or
>
> (b) the territorial authority incorrectly applied its development contributions policy; or
>
> (c) the information used to assess the person's development against the development contributions policy, or the way the territorial authority has recorded or used it when requiring a development contribution, was incomplete or contained errors. (LGA, section 199A)

The second mechanism to objecting to a development contribution is set out in s 199C of the LGA. This section states that any person who has been provided with a notice of a requirement to pay a development contribution may object to the amount that a territorial authority has assessed as being payable. A register of independent commissioners has been appointed by the Minister of Local Government, and these commissioners are responsible for considering objections. Once a territorial authority is in receipt of an objection, it must, as soon as practicable, select up to three development contributions commissioners to decide the objection.

Source: DIA, 2014c.

At the time of writing, four formal objections had been lodged – but none of these objections have gone through the full process. Two objections were resolved through voluntary mediation, while the other two were put on hold while other matters, including an RMA appeal, are decided.

The ability to lodge objections has only been in place for a short time (since December 2014). However, given the persistent complaints about development contributions, it is surprising that so few formal objections have been lodged. One possible explanation is that the introduction of the objections process has resulted in a behavioural change, with councils paying greater attention to the content and justification for their development contributions. Alternatively, developers may feel that they do not have sufficient grounds to challenge infrastructure changes.

The Commission requested information from inquiry participants as to whether any barriers deter developers from lodging a formal objection to development contributions. Several councils (sub. 128 and sub. 133) noted that few barriers exist. Property Council New Zealand (sub. DR100, p. 6) was the only submitter who

suggested barriers exist: "the process can be time consuming with developers required to foot the administrative costs of the process."

F9.5 There is little evidence to suggest that the current processes for challenging, and providing transparency over, development contributions are deficient.

Leading practices in the use of development contributions

The Commission has identified a number of good practices that some councils have established that other councils should consider.

Deferral of payments

Development contributions can be charged when:

- a resource consent is granted under the RMA;
- a building consent is granted under the Building Act 2004; or
- an authorisation for a service connection is granted (DIA, 2013c).

For residential developments, the first resource consents are usually for subdivision of land. In some cases, substantial time can elapse between initial consents being granted (and development contributions charged) and the developer receiving income from the sale of sections or houses. During this time the developer may have to service loans taken out to cover the cost of development contributions or opportunity costs associated with not being able to put that money to other uses (DIA, 2013c).

Although delaying the payment of development contributions is not mandatory,[46] some councils allow flexibility around the timing of payments. This flexibility can make it easier for developers to finance development. For example, Auckland Council's development contributions policy includes the following provisions:

> The council acknowledges the effect that early payment of contributions can have on the viability of a development and aims under the policy to require the contribution to be paid later in the development cycle without losing the ability to use statutory enforcement powers.
>
> The council is mindful that a later payment profile will delay the income forecast for contributions and increase the overall growth related borrowing cost that is included in the contributions price. The overall effect of this increase is expected to be offset by the benefit to developers of aligning the payment of contributions closer to the development's positive cashflow and thereby minimising their overall borrowing costs. (Auckland Council, 2014, p. 16)

Several inquiry participants noted that deferral of development contributions payments can help to increase the viability of development projects.

Keeping an open dialogue

Councils must publish a development contributions policy that sets out how contributions are levied. Case law has established that charges can only be levied where a "causal nexus" can be established between the development in question and the infrastructure required to support it:

> [B]efore a development contribution may be required by the Council, there must be a "development" and a direct causal nexus between that "development" and the demand for infrastructure it … generates. (*Neil Construction Limited and others v North Shore City Council, 2001, p. 40)*

In practice, it can be difficult to accurately determine the causal nexus of every development, which can lead to confusion as to what services are covered by development contributions (Registered Master Builders & Construction Strategy Group, 2015). In an effort to avoid this problem, Tauranga City Council has implemented discussions with developers about proposed development contributions before the

[46] The Development Contributions Working Group (DIA, 2013c) considered the option of delaying the payment of development contributions, but ultimately decided against making this practice mandatory.

contributions are charged. This enables both sides to clarify how the contributions have been calculated and to voice any differences of opinion. Several inquiry participants endorsed this approach:

> Our experience with TCC [Tauranga City Council] is that they are open to reviewing and improving the DCP [Development Contribution Policy] based on issues and feedback received by ourselves and others in the local Development Community. (Te Tumu Landowners Group, sub. 40, p. 16)

> Tauranga City Council provides opportunities to review whether charges are reasonable i.e. the council provides sufficient detail to understand the charges. (Property Council New Zealand, sub. 33, p. 19)

F9.6 Tauranga City Council provides an opportunity for the development community to review proposed development contributions, and will consider feedback on areas for improvement. Inquiry participants have identified this approach as a leading practice.

Using targeted rates as an alternative to development contributions

One issue raised regarding development contributions is that the full costs of trunk infrastructure are loaded onto the upfront cost of new dwellings:

> [D]evelopment contributions are levied at the start of the process and added to the purchase price of new sections. This has had the effect of lifting the general price of all properties in places like Auckland. (Donald Ellis, sub. 44, p. 11)

The New Zealand Housing Federation argued in favour of recovering growth-related infrastructure costs over a longer time period:

> Typically, levies are charged as upfront payments which developers treat as a cost and [so then] increase the price of a new dwelling. There are a number of other alternative approaches that could be employed which may produce more affordable outcomes. For example, rather than collecting a levy upfront a special rate could be charged across the properties benefiting from the new or upgraded infrastructure which collects the cost of the asset over its effective life. This would reduce the initial cost to the developer while still collecting the same infrastructure tax over time. (sub. 69, p. 13)

Chapter 8 discusses recent legislative changes that give more profile to developer agreements to construct infrastructure, and that require councils to consider and respond to requests from a developer to enter such an agreement. In the draft report the Commission recommended the introduction of parallel provisions that would allow a developer to request the construction of infrastructure by the council, and the imposition of a targeted rate on the land in question by the council to recover the costs of the infrastructure construction. This proposal is similar to development contributions in that it allows councils to recover growth-related infrastructure costs from the beneficiaries of the infrastructure. But it differs in that the upfront costs of growth-related infrastructure can be recouped over a longer timeframe.

Christchurch City Council and LGNZ supported this recommendation under the proviso that accepting such a request is not compulsory.

> The Council supports this recommendation in principle. However, the Council does not support any compulsion on the part of Council to agree to a request. The use of targeted rates should only be considered where appropriate. The Council also notes that the use of a targeted rate (and the ongoing commitment this requires) must always be made clear to any perspective purchaser, and that the ongoing financial commitment is in lieu of infrastructure costs being paid through development contributions. (Christchurch City Council, sub. DR128, p. 11)

> LGNZ supports such a mechanism so it is clear that a request can be made and that councils are obliged to consider it (the decision-making ability resting with the council). The reason councils have not made use of this option is the significant temporal gap between the construction of infrastructure and sale of properties in new developments. This can result in an ongoing subsidy from existing residents. (LGNZ, sub. DR130, p. 13)

However, several councils raised the concern that targeted rates shift the risks associated with construction of new infrastructure from the development community to the council and the wider community:

> In respect of targeted rates being used instead of development contributions we wish to point out our significant concerns with this proposal, especially in respect on the increased rates burden it would place on [new] home owners and the additional debt it would place on council balance sheets… The increase in debt is caused by the delay in receiving revenue caused by receiving small payments over a number of years through a targeted rate instead of a substantial upfront development contribution charge… in order to not breach its debt limits TCC would need to substantially decrease its expenditure which may compromise investment in growth-related infrastructure and other investment. This would be contra to land supply and housing affordability objectives. (Tauranga City Council, sub. DR102, pp. 24–25)
>
> This change would transfer the risk associated with the provision of infrastructure to the council, and if after the services were installed the development was not completed the council and its community would have to carry the debt incurred. In a system based on private developers operating in a market economy with the objective of making a profit the transfer of private risk to the community in such a way would be unacceptable. (Waimakariri District Council, sub. DR108, p. 10)
>
> The Council would question the value of such a change… these requests may be refused on the basis the Council, and the general rate payer, would have to assume a high level of financial risk for unplanned and adhoc development [requests would] also serve to undermine place based spatial planning documents, and be a disincentive to invest in infrastructure rather than an incentive. (Wellington City Council, sub. DR118, p. 15)
>
> A blanket requirement to formally consider all such proposals would incur more administrative cost and divert key staff from focusing on issues that would have a real impact on land supply. (Auckland Council, sub. DR135, p. 29)

Waipa District Council (sub. 133) also questioned the merit of targeted rates as an alternative to development contributions, noting that targeted rates dampen the incentive to invest in the most efficient locations as the recovery of costs falls on subsequent purchasers and is recovered incrementally over a longer time period.

The Commission agrees that there are some valid reasons for upfront cost recovery through development contributions, rather than over a longer time period through a targeted rate. However, where cost-recovery over a longer time period might assist in bringing more construction-ready land to the market, councils should remain open to the option.

R9.4 Councils should consider repayment options for development contributions that allow the costs to be recovered over a longer time period. The application of a targeted rate that recovers the cost of infrastructure is one existing mechanism that would facilitate this.

9.6 Alternative approaches to paying for infrastructure

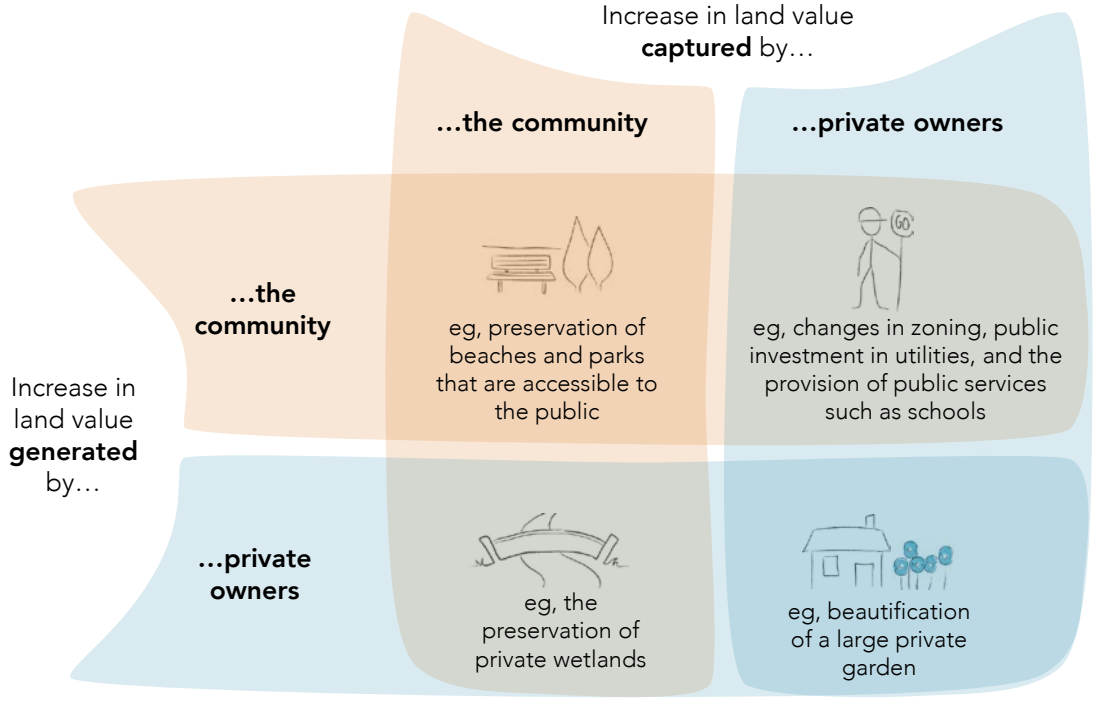
Many inquiry participants suggested that councils would benefit from access to a greater range of tools for recovering the costs of growth-related infrastructure. As discussed earlier (section 9.5), existing communities are likely to oppose new developments if the costs of infrastructure needed to support that growth are met through general rates. As a consequence, effective approaches to paying for infrastructure should avoid cross-subsidy and instead ensure that the full costs of growth are recovered from landowners or developers.

Two funding approaches that were recommended by inquiry participants are value capture and tax increment financing (TIF). The following section considers the applicability of these models to New Zealand's high-growth cities, and proposes an amended version of value capture through targeted rates. The following section also considers the use of Municipal Utility Districts (MUDs) as an alternative model for delivery of growth-related infrastructure.

Value capture

Land can appreciate in value because of the actions of the community or the landowners. Likewise, the actions of landowners and the community can create benefits for the community and for private landowners (Figure 9.9).

Figure 9.9 Types of land value creation



Source: Adapted from Brown & Smolka (1997).

Value capture mechanisms are public policy instruments that capture or reserve for community use some of the uplift in land value created by public actions (the top right quadrant of Figure 9.9). These public actions include rezoning to allow higher value activities ("upzoning") or the provision of infrastructure, and the value of the rezoning or infrastructure is capitalised into the land price.

The justification for value capture is that the increase in values is not caused by the landowner's action, and is therefore "unearned". John Stuart Mill wrote:

> Suppose that there is a kind of income which constantly tends to increase, without any exertion or sacrifice on the part of the owners: … In such a case it would be no violation of the principles on which private property is grounded, if the state should appropriate this increase of wealth, or part of it, as it arises. This would not properly be taking anything from anybody; it would merely be applying an accession of wealth, created by circumstances, to the benefit of society, instead of allowing it to become an unearned appendage to the riches of a particular class. (Mill, 1848, Book 5, Chapter 2, §5)

The corollary of the argument that a landowner has no automatic entitlement to retain value that results from community action would be that the community has a right to retain the value generated by the public investment.

Value capture in practice

When broadly applied across a district, value capture mechanisms such as land value increment taxes or betterment levies could shift incentives to discourage speculation in land and increase land availability, in turn causing lower land prices, a lower cost of living, and reduced poverty (Brown & Smolka, 1997).

But broadly-applied betterment levies are not promising as a way of capturing the uplift from public action because they have proved difficult to sustain over time. There were at least four attempts at introducing betterment levies in the United Kingdom in the 20th century, none of which lasted. New Zealand planning law provided for betterment levies between 1926 and 1953, but they were never used (Hearn, 1987). A 1967 betterment levy in Sydney raised $9 million, but was repealed after six years. A type of betterment levy continues in the Australian Capital Territory, facilitated by the Territory's leasehold tenure system.

The unsteady history of betterment levies, particularly in English-speaking countries, is important because if the betterment levy is not expected to continue indefinitely, then landowners will be encouraged to hold land, or discouraged from seeking rezoning, in the expectation that the policy will be repealed. Such a

situation would worsen land shortages and, in turn, contribute to higher housing costs. Walters (2013) and Day (2006) report that this was the experience in previous UK attempts at betterment levies.

While broadly-applied betterment levies have proven difficult to implement, local value capture mechanisms have become widespread internationally in urban development. They capture localised increases in value caused by specific regulatory changes or infrastructure investments, most commonly public transport initiatives. In this way, localised value capture mechanisms can generate financing for public projects that would otherwise be difficult to initiate, including addressing infrastructure funding gaps. Local value capture for specific projects:

- is suitable for large, one-off projects that are likely to be episodic;
- might encourage more dense redevelopment of built-up areas such as town centres;
- should share the value uplift, leaving some gain for local owners;
- could fund incremental improvements to land supply, but would not have a systematic effect; and
- would provide similar benefits to target rates.

The potential for targeted rates to be used to achieve this sort of localised value capture for specific projects is discussed below

Tax Increment Financing

SmartGrowth (sub. 27), the Greater Christchurch Urban Development Strategy Partnership (sub. 18), and Hutt City Council (sub. 17) suggested TIF as a possible alternative mechanism for financing infrastructure investments.

The idea behind TIF is that a local authority forecasts the increase in tax revenue that will result from an infrastructure investment, and borrows against that future income. This is commonly done in the United States by issuing bonds, with future tax revenue hypothecated for a timeframe to repay the debt.

The major problem with TIF for growth-related infrastructure in New Zealand is that much of the core infrastructure required for housing (eg, parks, roads and stormwater infrastructure) does not provide additional revenue to councils. Accommodating a growing population will mean that councils have a larger rating base, yet the way that rates are calculated means that a larger number of ratepayers does not by itself create additional revenue.

As described in Chapter 4, rates are calculated in a top-down method; with a council first agreeing a LTP and a financial impact statement, then allocating the financial burden between ratepayers. Where an infrastructure investment increases the rateable value of newly serviced land, this only causes the total rating burden to be re-allocated among ratepayers. No new revenue is actually generated unless a council also increases its forecast expenditure. Nor is it possible to forecast what the rate take from a new development will be in the future, because it depends entirely on the council's expenditure plan (which is subject to change).

Several inquiry participants agreed that the current approach to setting rates makes a straight adoption of TIF difficult:

> … in New Zealand the way rates are set means increases in the value of the rating base will not of itself increase rating revenue. (Western Bay of Plenty District Council, sub. DR104, p. 9)
>
> Based on the current legislative framework we agree that a straight adoption of the tax increment financing system used overseas would not be possible. (Wellington City Council, sub. DR118, p. 14)
>
> It is fair however, to highlight the fact that additional ratepayers in and of itself does not create additional general rates revenue. (Federated Farmers, sub. DR120, p. 15)

F9.7 New Zealand's current system of rates means that a straight adoption of tax increment financing schemes used overseas is not suited as a funding tool for growth-related infrastructure.

Targeted rates as a way to achieve the benefits of TIF and value capture

The New Zealand Council for Infrastructure Development submitted that a workable model of TIF would be to identify an area that would benefit from an infrastructure investment (such as an improvement in public transport), and draw a "financial cordon" around the area. Increases in land or capital value beyond the rates that would otherwise have been collected are ringfenced and used to repay investors in the infrastructure asset (sub. 132, p. 14). They argue:

> There are two broad advantages of this approach. First, it would incentivise a developer to maximise the rateable value of properties benefitting from, in this case, a major public transport investment. Second, it would ensure that rates revenue would be additional to, not redistributed across, the existing rates pool.
>
> The strategic benefit resulting from better incentivising developers and increasing rates revenue is that programmes which otherwise would not go ahead or would only progress incrementally, could be delivered as a coherent package. (sub. 132, p. 14)

In the Commission's view, targeted rates provide an existing mechanism to 'place a financial cordon' around an area and 'ringfence' the resulting revenue, with equivalent benefits to those claimed by NZCID.

Auckland Council agreed that targeted rates were a good form of capturing value uplift, but noted that levying targeted rates on the basis of *changes* in land or property value was not allowed:

> One alternative that may make a targeted rate more palatable and to better align the cost allocation with benefit would be to apportion the cost on the basis of change in land value, a form of value capture rate. In this way a property owner would pay a share based on the benefit they were receiving in terms of land value uplift. In order to be able to employ this tool the council recommends that the Local Government (Rating) Act 2002 be amended to allow rates to be set on the basis of change in land value. (Auckland Council, sub. DR135, p. 29)

This seems a sensible way to apportion the cost of such infrastructure, and achieve the objectives sought by NZCID and others who submitted in favour of TIF.

Chapter 3 discusses the effect that infrastructure and amenity improvements have on land value, noting that Grimes and Young (2010) found that property prices increased in value following the announcement in 2005 of upgrades to the Western Line of Auckland's passenger rail network – including electrification, double tracking, and upgrades to New Lynn station that involved moving sections of the line underground. They estimated that house prices adjacent to station rose by 3.5%, and extrapolated that land prices increased by 8.5%. They estimated a total increase in land value for properties within 9km of a train station following the announcements to be from $217 million to $244 million.

The ability to levy a targeted rate on the basis of change in land value would generate a fair way of recouping some of the cost from those who benefit quite directly. There are risks that market anticipation of the infrastructure investment means that the full benefits are not realised; but this would still be a valuable addition to a council's rating toolkit in some circumstances.

R9.5 To enable councils to capture the uplift in property values resulting from infrastructure investments, the Department of Internal Affairs should investigate amending the Local Government (Rating) Act 2002 to allow councils to levy targeted rates on the basis of change in land value.

Municipal Utility Districts

MUDs were explored by Bassett and Malpass in a 2013 paper for the New Zealand Initiative: *Different Places, Different Means: Why some countries build more than others*. The paper focuses on the Texan model of MUDs, but is a common structure across the United States known by a variety of names, most commonly Special Districts.[47] The United States has as many as 35 000 special districts, and they are the most common type of government entity (Killian, 2009).

A number of inquiry participants, including Phil Hayward (sub. 47) and Dale Smith (sub. 31), suggested MUDs as an alternative model for financing infrastructure. A MUD is effectively a statutory authority set up by a developer, which borrows money (via the issuing of bonds) to construct infrastructure (usually water infrastructure) and has the power to tax residents in a new development to repay the debt and cover operating costs. At an early stage, control of the MUD is usually passed from the developer to the new residents. In due course it is expected that a local council will take over responsibility for managing the infrastructure, and the MUD will be disestablished.

Bassett and Malpass (2013) cited a number of benefits of MUDs:

- water infrastructure can be financed on a voluntary basis as it is required;
- concerns that existing ratepayers are paying for new growth are allayed;
- the cost of water infrastructure is separate from general rates, preventing cross-subsidisation;
- the cost of infrastructure is not front-loaded into house prices;
- they prevent local government from hands-on planning of developments; and
- infrastructure and land costs are kept down through competition.

Some evidence shows that the residents do not fully understand their future tax liability to the MUD when purchasing a property, and so the future costs are not capitalised into house prices (Billings & Thibodeau, 2013; Bradley, 2011). Bassett and Malpass (2013) note that no MUD has been annexed by a council in Texas for some 15 years and suggest that this reflects broad community support for remaining within the MUD. They also note concerns about whether MUDs will be able to fund the upgrading or replacement of wastewater treatment facilities when required in the future. Others have raised concerns about the transparency and accountability of special districts, or suggested that local officials favour the proliferation of special districts as a way to distance local politicians from unpopular decisions such as the location of landfills (Galvan, 2007; Killian, 2009).

Some assessments of the MUD approach have also raised concerns about a lack of oversight:

> Weak public oversight has facilitated numerous cases of fraud or unlawful behavior on the part of MUD boards and individual directors. (Galvan, 2007, p. 3055)

Assessments of MUDs (as used in Texas) also raise concerns about fragmentation and efficiency:

> The perceived advantage of special districts is their ability to impose costs on those who receive their benefits—that is, the group of people living or owning property within the district. But special districts have many negative consequences beyond their bounds—externalities that are not factored in to the calculus used to justify their creation. Moreover, having too many small special districts leads to fragmentation, creating an anticommons, which makes a coordinated approach to solving a large problem impossible. (Galvan, 2007, p. 3047)
>
> Despite their claim to efficiency, these governmental forms are a more expensive way to perform a given public function than is city government. (Frug, 2002, p. 1784)

[47] Other names include special service districts, special purpose districts, limited purpose districts, municipal development districts, and special development districts.

Potential for MUDs in New Zealand?

MUDs are a mechanism that enables developers to initiate a new infrastructure solution that is financed with long-term debt, while passing the obligation to repay that debt on to the future homeowner. The MUD model offers the significant benefit (at least in terms of the release of land for housing) of not requiring local government approval to be initiated. Developers who are able to secure finance do not need to wait for local government to provide and construct growth-enabling infrastructure.

On the face of it, a proliferation of small, resident-managed water districts seems to have few advantages from an efficiency perspective. For example, in its submission, Water New Zealand expressed concern that the existing large number of water providers is unduly costly:

> Having 86 businesses to provide water governance for 4.4 million customers does not allow for a coordinated or strategic approach and it is notable the first National Infrastructure Plan (2011) rated water infrastructure as New Zealand's worst performing infrastructure asset and the most in need of attention. (sub. 30, p. 3)

The significant difficulties faced by smaller communities in New Zealand in maintaining their water infrastructure and wastewater standards, and the need for central government subsidies to allow such communities to upgrade to meet drinking standards, all point to the relative inefficiency of small water infrastructure providers.

One strong supporter of the MUD model suggested that small infrastructure providers are not necessarily less efficient:

> … efficiency of scale is a U shaped curve so smaller does not necessarily mean less efficient… The fact that all MUD developments are more affordable for the end consumer than NZ developments shows that there is an inherent efficiency irrespective of scale. (Dale Smith, sub. DR80, pp. 3–4)

Irrespective of whether smaller infrastructure systems serving single developments can be built and operated with the same efficiency as larger networks, submissions from councils suggest that developers show little appetite to construct private infrastructure solutions:

> Our experience indicates that there are clearly limits to the infrastructure that developers can and are ever likely to want to build to support their privately initiated developments. (Waimakariri District Council, sub. DR108, p. 8)

> …there are few developers with sufficient access to capital to fund very large infrastructure projects. (Hamilton City Council, sub. DR114, p. 8)

In contrast, NZCID supported the implementation of MUDs in New Zealand and submitted that there is significant private interest in public infrastructure:

> We are aware of significant private sector interest in public infrastructure and development financing and consider there would be support for mechanisms which transfer development risk and reward to private organisations. (NZCID, sub. DR132, p. 15)

While the private sector may be interested in financing public infrastructure, in the course of this inquiry the Commission did not detect any expressions of interest from the development community in taking responsibility for building and managing infrastructure networks using a model similar to a MUD. In addition, the development community has not identified any substantive barriers that currently prevent the development of infrastructure using a MUD approach.

F9.8 The municipal utility district (MUD) model of infrastructure development has potential to inject competition into the market for infrastructure. However it is not clear whether a proliferation of small, resident-managed infrastructure districts would achieve efficiencies. In addition, there appears to be few barriers to pursuing this model of development in New Zealand and little enthusiasm for the model among the development community.

9.7 Conclusion

The costs associated with urban infrastructure appear to be rising and many high-growth councils report that the cost of new infrastructure has a major influence on the rate of residential development.

Well-informed investment decisions and effective use and management of existing infrastructure assets are important steps in ensuring that council infrastructure is able to respond to growth pressures. Having effective processes in place to recover infrastructure costs from the parties that benefit from the investment also matters.

Councils are able to raise debt finance for infrastructure from a range of sources. Borrowing enables councils to deliver infrastructure when it is most needed and promotes intergenerational equity. While council debt levels can be a source of political angst, instances of poor financial management are relatively uncommon. Recent reviews of council debt have not identified any issues with the use of debt by high-growth councils. Recent legislative changes have introduced a debt-servicing benchmark. Many high-growth councils are well within that benchmark, yet some are approaching the upper limits. The effect of this benchmark should be monitored over the coming years, with particular consideration of how it influences the ability of high-growth councils to roll out the infrastructure needed to accommodate growth.

Development contributions are the primary way that councils recover the costs of growth-related infrastructure. By providing a way to fully recover the costs of growth from those that benefit, development contributions can mitigate community and political opposition to new growth. Properly structured charges also help to ensure that investment reflects its opportunity cost and that locational decisions are efficient. For development contributions to be effective, it is important that they recover the full costs of trunk infrastructure needed to support growth, and that the charges are tailored in a way that reflects the true costs of development in different locations, and for different types of dwelling.

A number of inquiry participants suggested that alternative funding tools are required to recover the costs of infrastructure to support growth. However, there appears to be scope for councils to make greater use of existing tools, particularly targeted rates, to recover costs over a long period of time from the communities that benefit from infrastructure. The ability to levy a targeted rate on the basis of change in land value is one way of recouping some of the cost from those who benefit from infrastructure investments that increase land values. The DIA should investigate amending the Local Government (Rating) Act 2002 to allow councils to levy targeted rates on the basis of change in land value.

The establishment of MUDs has potential to inject competition into the market for infrastructure by enabling developers to construct infrastructure at their own initiative and to recover the costs from those that benefit over a long timeframe. However, it is not clear whether a proliferation of small, resident-managed infrastructure districts would achieve efficiencies. In addition, there currently appears to be little enthusiasm for the model among the New Zealand development community.

10 Governance of transport and water infrastructure

Key points

- Transport and water infrastructure are critical components in an effective supply of land for housing. The governance arrangements for these assets are quite different: for transport infrastructure, central government plays a central role both in a planning and funding capacity; while the arrangements for water infrastructure are much more devolved.
- The Government Policy Statement on Land Transport makes relatively little reference to land supply for housing. A stronger focus on how transport infrastructure can support land supply for housing would change the New Zealand Transport Agency's investment priorities and might help to free up land supply in high-growth cities.
- Auckland Council should ensure that its council controlled organisations are aligned with the Auckland Plan and its target for new dwellings. Auckland Transport and Watercare's SOIs should be amended to include performance measures relating to the efficient roll-out of new infrastructure to support an increased supply of new dwellings.
- The current governance arrangements for water infrastructure have three major shortcomings that are likely to inhibit affordable and efficient provision:
  - fragmentation in water provision;
  - problems associated with monopoly provision; and
  - evidence of inefficient pricing.
- While water services have a range of characteristics that have led to local public monopoly provision, the approach has a number of well-recognised issues. One particular problem is that the provision of water services, particularly water pricing, is susceptible to political interference. This can have consequences for the provision of water infrastructure to support urban growth.
- Watercare – Auckland Council's water provider – does not currently recover the full costs of growth. This has potential to create disincentives on the part of the council controlled organisation and existing residents to accommodate new growth. Watercare should change its approach to calculating infrastructure growth charges to better reflect the underlying economic costs of supply.
- The current legislative restrictions on the use of contracting or franchise arrangements for delivery of water services limit the ability to create contestability in water provision. The Local Government Act 2002 should be amended to provide councils with a wider range of options for providing and managing water services. Legislative barriers to the use of contracting arrangements for water services should be repealed.
- The regulatory and institutional framework around the water sector can be improved. Discipline and transparency around the pricing of water services, and better performance monitoring, would improve the ability of the water sector to support urban growth

10.1 Introduction

This chapter looks at the governance arrangements for two types of infrastructure that are critical components in an effective supply of land for housing – transport and water infrastructure. The chapter examines opportunities to improve the coordination among the different actors involved in the provision of

transport infrastructure, including the significant role played by central government. The chapter identifies shortcomings in the governance arrangements for water, including some specific issues relating to the arrangements for Auckland's water provider, Watercare. The chapter also discusses some of the advantages and disadvantages of the council controlled organisation (CCO) model for the provision of infrastructure.

10.2 Transport infrastructure

Territorial authorities, regional councils and central government are the three main players involved in the governance of transport infrastructure. As set out in Chapter 2, through the Government Policy Statement (GPS) on Land Transport, central government sets the overall objectives and results sought for the transport network over a 10-year timeframe. The New Zealand Transport Agency (NZTA) then develops a 3-year National Land Transport Programme that gives effect to the GPS and outlines the activities that will receive funding from the National Land Transport Fund. These activities are selected from proposals included in Regional Land Transport Plans. Regional Land Transport Plans are developed by regional transport committees that include representatives from the relevant regional council and territorial authorities.

As an example of how these arrangements work in practice, Table 10.1 sets out the different actors that are responsible for transport functions in the Wellington region. While arrangements are broadly similar in other high-growth areas, the allocation of responsibilities sometimes varies. For example, in Auckland the CCO Auckland Transport performs the combined role of a regional and territorial authority.

Table 10.1 Responsibility for land transport functions in Wellington

Function	Primary Responsibility	Comments
Strategic planning	Regional	The Regional Land Transport Plan is prepared by the Regional Transport Committee, which is made up of representatives from Greater Wellington Regional Council (GWRC), territorial authorities, and the NZTA.
Public transport services	Regional	Planning and procurement of bus, rail and ferry services is undertaken by GWRC. Rail services are provided under contract by KiwiRail, and bus and ferry services are under contract to private providers.
Rail infrastructure	National (KiwiRail)	KiwiRail owns and maintains rail infrastructure as part of the national rail network.
Other public transport infrastructure	Regional and Territorial	GWRC owns or controls railway stations, park and rides, and major off-street interchanges. Other public transport infrastructure (such as bus stops) is located within the road reserve, and is the responsibility of territorial authorities.
State highways	National (NZTA)	The NZTA operates Wellington's motorways and state highways as part of the state highway network.
Local roads	Territorial	All roads other than state highways are the responsibility of territorial authorities.
Walking and cycling	Territorial	Most walking and cycling infrastructure is the responsibility of territorial authorities.
Travel demand management	Regional and Territorial	GWRC plans, promotes and provides training for travel planning programmes, while territorial authorities are responsible for implementation.

Source: CityScope, 2014.

As discussed in Chapter 11, the planning requirements under the Land Transport Management Act 2003 are part of a complex web of plans that can be difficult for councils to coordinate. A number of inquiry participants raised concerns about the extent to which the different legislative planning frameworks and timeframes promote integrated decisions about land use, infrastructure provision and transport services. As

part of a strategy to address this, Chapter 11 identifies the need for a comprehensive review of the planning framework which should include an examination of the interaction of the three main planning Acts.

Some inquiry participants also identified issues relating to the coordination between local government and the NZTA.

Coordination between councils and the NZTA

A feature of the governance arrangements for transport infrastructure is the significant role played by central government both in a planning capacity and as a funder of local transport infrastructure. For 2015–18, $2.2 billion of funding from the National Land Transport Fund is allocated for maintenance and improvement of local roads (NZTA, 2015a). As shown in Figure 9.4 and Figure 9.8, this is a significant share of total local government funding and amounts to about 50% of the funding for local roads.

In addition to its involvement in local transport infrastructure, the NZTA is also responsible for funding and managing the state highway network, and so has a strong interest in how urban growth affects the demands on the state highway network. The strong links between transport and land use are described in the NZTA's submission:

> Land-use and transport are fundamentally linked, with transport facilitating the movement of people and goods that enables the interactions and transactions that support our communities and the economy. How land is released for urban development will influence the Agency's [NZTA's] ability to optimise its investment from the National Land Transport Fund (NLTF) and deliver a safe, accessible and efficient transport system that provides for New Zealand's social, cultural and economic well-being. (NZTA, sub. 73, p. 4)

Several high-growth councils acknowledged the significant investment that central government makes in local road networks (eg, Tauranga City Council, sub. 47).

The NZTA reports that it has invested significant time and resources in developing and implementing spatial plans, including SmartGrowth (greater Tauranga), Future Proof (greater Hamilton), Urban Development Strategy (greater Christchurch), and The Auckland Plan. This has enabled the NZTA to gain "certainty around the form of future development, and the timing and location of new transport infrastructure needed to support that growth" (NZTA, sub. 73, p. 8).

Given that land use and transport are fundamentally linked, the early involvement of the NZTA in spatial planning is a good practice. However, despite its involvement in the SmartGrowth strategy for the greater Tauranga area, both Tauranga City Council (TCC) and Western Bay of Plenty District Council raised concerns about difficulties integrating with the state highway network:

> The main difficulties we have experienced occur where integration with the State Highway network is required…particularly with regard to obtaining access to and use of the network. (Western Bay of Plenty District Council, sub. 36, p. 3)

> …State Highway investment remains one of the biggest challenges to growth management in Tauranga. (TCC, sub. 47, p. 21)

These concerns appear to stem primarily from contrasting sets of incentives. The NZTA is responsible for giving effect to the government of the day's GPS on land transport. The GPS is released every three years and outlines the government's strategy to guide land transport investment over a 10-year timeframe.

The three main priorities of the current GPS are economic growth and productivity, road safety, and value for money. The GPS does make reference to accommodating growth in Auckland:

> An Auckland transport network that is working well is crucial to improving the contribution that the city can make to New Zealand's economic growth and productivity. This includes addressing associated needs such as a responsive housing supply and improving energy efficiency. Increased demand for travel arising from population growth also needs to be accommodated at an acceptable price. (GPS on Land Transport, 2014, p. 17)

But, as noted in the NZTA's submission, investment to support the release of land for housing is not a primary focus in the GPS:

> [T]he National Land Transport Fund (NLTF) is a finite funding source and therefore the Agency needs to demonstrate value for money while also giving effect to the government of the day's Government Policy Statement on Land Transport (GPS). The current GPS priorities for investment include support for economic development and road safety. A change of direction to focus investment on the release of affordable land would likely result in a different investment portfolio. (NZTA, sub. 73, p. 5)

Inquiry participants reported that the NZTA responds diligently to the priorities set for it in the GPS. But, in some instances this comes into conflict with the development of land for housing. Box 10.1 provides one example of how this plays out in practice.

Box 10.1 **Construction standards for the Papamoa East interchange**

Tauranga City Council has recently rezoned more than 300 hectares of land for residential, industrial and commercial development in Papamoa East. The land is bordered on the south by the Eastern Link motorway – a $455 million highway due for completion in 2016.

To unlock large areas of land for housing in Papamoa East, a new interchange will need to be built on the Eastern Link motorway. The construction standard for this interchange epitomises the competing interests that can emerge between the NZTA and local governments.

From the NZTA's perspective, the primary objectives for the Eastern Link motorway are:

- safer and easier travel;
- reduced travel times between Tauranga and Paengaroa;
- more efficient connections for business, industry and tourism; and
- supporting regional employment and economic growth (NZTA, 2015b).

To protect the savings in travel time and the safety of the motorway, the NZTA requires that the Papamoa East interchange is built to a high standard (grade separated) at an estimated cost of between $20 million and $25 million.

In contrast, TCC suggested that a lower-specified interchange (ie, a roundabout) could be built at significantly lower cost and that the standards set by the NZTA are unnecessarily high:

> TCC faces … the financial consequences of what we believe are unnecessarily high levels of service sought by NZTA for much of the State Highway network in and around Tauranga. We don't believe that these levels are sustainable or affordable… The outcome of these types of levels of service include things like having to build grade separated interchanges to connect local roads to the State Highway network at a cost of 2 to 3 times more than a roundabout would cost. (TCC, sub. 47, pp. 21–22)

The Commission understands that the NZTA and TCC are working to resolve issues relating to access to Papamoa East, but while the NZTA and local authorities are pursuing different priorities it is likely that similar issues will continue to emerge. Because the National Land Transport Fund is a finite resource, trade-offs are required in how and where it is used. One option available that would help high-growth areas to increase the supply of land for housing is to amend the GPS to include a greater focus on the supply of land for housing – particularly in areas of short supply. This would require a change in priorities and a reassessment of the trade-offs between the relative importance of land supply versus competing objectives such as the efficiency of freight transport.

F10.1 The Government Policy Statement on Land Transport makes relatively little reference to land supply for housing. A stronger focus on how transport infrastructure can support land supply for housing would change the New Zealand Transport Agency's investment priorities and might help to free up land supply in high-growth cities. However, shifting the priorities for land transport funding could have implications for existing priorities.

Suggestions to further improve coordination and alignment

The Commission's inquiry into international freight transport services (NZPC, 2012b) recommended that coordination issues should be addressed through greater use of 'facilitated discussion' models of investment planning. These models are based on information sharing, robust discussion and relationship building, but do not bind the participants to particular outcomes. They do not create the strong incentives for the costly behaviours that undermine directive models (such as tactical misinformation, rent-seeking and strategic hold-up).

The Upper North Island Freight Story ('The Story') is an example of a facilitated discussion. The Story is a collaboration between central and local government organisations, and aims to improve the efficiency of freight transport in the region[48]. There are two key elements of the Story:

- Establishing a list of issues that participants agree are critical to the efficiency of freight transport in the region.
- Establishing a shared evidence base to support future discussions and decision-making.

One critical issue identified in the Story is the need for organisations to understand the likely supply and demand for industrial land across the upper North Island. This information will assist decision makers to stage infrastructure investment and the release of land in a manner that meets market demand. Councils jointly commissioned Business and Economic Research Limited (BERL) to undertake work on industrial land demand in the region. In its 2015 report, BERL recommended that councils adopt a standardised method for determining the future demand of industrial land. BERL note that a standard methodology would help members to understand whether investment in additional serviced industrial land is required in their local authority area.

F10.2 Facilitated discussions involving central and local government organisations can be effective in developing a shared understanding of land use demand and associated infrastructure.

10.3 Water infrastructure

Water infrastructure – which includes drinking or potable water supply, wastewater treatment and disposal and stormwater management – is the responsibility of local government. Managing the operation of existing water networks, and delivering water infrastructure to support growth, is a significant component of a council's total workload. High-growth councils typically dedicate between 20% and 30% of their total operating expenditure on water supply and wastewater management (Statistics New Zealand, 2015). Water-related infrastructure assets (such as pumps, pipelines and treatment plants) make up a significant share of council asset portfolios and are of considerable value. For example, New Zealand's largest water provider, Watercare (which is responsible for water and wastewater in the Auckland region) owns assets valued at around $8.1 billion (Watercare sub. DR129) – significantly more than the value of New Zealand's national electricity grid, Transpower.

Drinking water and wastewater are effectively part of the same water management system, as most water used by consumers is discharged via the sewerage system. Stormwater drainage networks are usually

[48] Members of the collaboration are: the New Zealand Transport Agency, Auckland Transport, KiwiRail and the Upper North Island Strategic Alliance (UNISA consisting of Northland, Waikato and Bay of Plenty Regional Councils and Whangarei, Auckland, Hamilton and Tauranga City Councils)

physically separate from those for drinking water and wastewater (Local Government Infrastructure Advisory Group, 2013). In terms of management, drinking water and wastewater are typically provided by the same organisation (horizontal integration). In some cases (eg, Wellington Water), stormwater services are also provided alongside drinking water and wastewater, while in other cases stormwater is managed separately. For example, in Auckland, Watercare is responsible for drinking water and wastewater, while Auckland Council is responsible for stormwater. In most parts of the country, water services are vertically integrated, in that abstraction, treatment and distribution are conducted by the same entity.

The governance arrangements for water are much more devolved than they are for transport infrastructure. Individual councils are each responsible for water provision within their local area. The majority of councils deliver water infrastructure through in-house business units and fund it through a mix of rates and development contributions. As discussed in Chapter 8, some councils use water meters and volumetric charges to recover the cost of water services; but most councils recover these costs through rates.

In Auckland and some parts of the greater Wellington area, CCOs have been established to manage water services – these arrangements are examined in more detail in the following section.

For water infrastructure, no central government agency performs a comparable function to the NZTA. The Health (Drinking Water) Amendment Act 2007 sets specific standards for drinking water and requires councils to report on drinking water quality within their districts. Discharge of wastewater or stormwater are not subject to specific standards, but the Resource Management Act 1991 (RMA) sets a limited range for the effects of discharges of wastewater or stormwater. Therefore plans, which are used to manage environmental discharges, often contain rules that build off and add to the provisions of the Health (Drinking Water) Amendment Act 2007, including controls on what is in the discharge (Local Government Infrastructure Advisory Group, 2013).

There is some suggestion that in the past central governments has been more involved in water infrastructure. The Commission has attempted to research central government's historical role in urban water infrastructure, but good information is lacking. Greater Wellington Regional Council's 2007 history, *Our water history – on tap*, is one exception (Box 10.2).

Box 10.2 **History of water supply in the Wellington region**

In the early years of Wellington's existence, water was collected from house-tops into barrels and iron tanks, and some shallow wells.

Early schemes were the result of entrepreneurial individuals, and financed in an ad hoc way:

> The first reticulation in the city was initiated by the Provincial Government, to supply shipping at Queen's Wharf. In 1867 Messrs John Beck and Carter tunnelled through the Hill Street ridge to a spring on Tinakori Road and planned to lay pipes to the wharf … The city, however, picked up the work laying pipes to the government's reservoir built on Hill Street beside the Meteorological Office. (p. 5)

But not all schemes were seen as worthwhile enterprises:

> When, in August, Wellington's ratepayers found that the Town Board had "entered into" the expensive scheme with Robert Marchant, their indignation boiled over. Why spend on waterworks when "every occupier of his cottage had a well?" … The availability of the Hill Street supply also discouraged the scheme being adopted. Wellington's Waterworks Company was, however, established and its shares secretly issued, but it played no part in the scheme adopted. (p. 6)

The history of water supply in Wellington is interesting throughout. It has always been a central concern for local government in the region, and the scale of investment a source of frustration to ratepayers, with a litany of embarrassing failures and engineering triumphs.

However, the largest scheme in Wellington's history, to take water from the Hutt River (now known as the Kaitoke scheme), was financed by central government and undertaken by the Ministry of Works:

> Bob Semple, Minister of Works and past-master in waterworks projects, drove the effort for a new scheme. In February 1943, Semple asked for information on potential water schemes to supply 15,000 houses in the Porirua basin. In supplying the information, the board sensed the offer of government money and "omit[ted] references to the economics of construction", that it "cannot be justified on economic grounds" … The Government endorsed the board's proposal and agreed to fund the Hutt River scheme (the cost being £1.1 million excluding service reservoirs and branch lines), but then "to hand over the works on completion to the Wellington City Council, to operate on behalf of the [Water Supply] Board's members". (p. 23)

Source: Greater Wellington Regional Council, 2007.

10.4 Issues with the governance arrangements for water

Ideally, water infrastructure should be affordable and efficient, ensure security of supply over the short term and the long term, meet acceptable standards of environmental and public health protection, and provide equity of access to existing and new dwellings through the provision of infrastructure with sufficient capacity.

The current governance arrangements for water infrastructure have three major shortcomings that are likely to inhibit affordable and efficient provision:

- fragmented provision of water,
- problems associated with monopoly provision, and
- inefficient pricing.

These three issues are discussed in greater detail in the following sections.

Water provision is highly fragmented

As water services are usually provided by territorial authorities, the scale of provision varies widely. Watercare is New Zealand's largest water provider, serving a population of about 1.4 million in Auckland. In contrast, Queenstown Lakes District Council serves the smallest population (about 40 000) among the high-growth councils that are the focus of this inquiry. Several commentators have noted that many councils are too small to exploit economies of scale in water supply and wastewater treatment (Water New Zealand, 2011; IPENZ, Ingenium & Water New Zealand, 2013; PwC & GHD, 2012; Local Government Infrastructure Advisory Group, 2013).

Water New Zealand (whose members include territorial local authorities, CCOs, water and wastewater service providers, major consultancies and Crown and other research institutes) suggests that the current management of the water sector is too fragmented:

> The management of what many consider to be one of our most critical and valuable resources rests with 707 territorial councillors, 67 mayors, 11 regional chairs and 116 regional councillors. Collectively this structural arrangement employs 25,000 staff, although it is difficult to determine exactly how many are directly involved in water management. This, by any standards, is a highly fragmented management arrangement and is at variance with the approaches taken to water management in similar jurisdictions. (sub. 30, p. 3)

The New Zealand Council for Infrastructure Development (NZCID) also identified opportunities to achieve scale economies in the provision of water services:

> We consider there to be significant additional opportunities to achieve scale economies in the provision of water services in New Zealand (NZCID, sub. DR125, p. 16)

What scale economies are possible?

There is a significant body of international literature that examines economies of scale and scope in the water industry:

> The determination of the existence of economies of scale, and particularly the optimal size of water utilities, is a classic problem in the water sector. (Berg & Marques, 2010, p. 158)

Abbott and Cohen (2009), and Saal et al. (2013) have reviewed this literature. Both note that the findings regarding scale economies are variable, but that most studies find that economies of scale do exist up to a certain level, and that diseconomies of scale can arise if a water provider increases size beyond this level. Existing research has not reached a consensus regarding the point at which scale diseconomies emerge. The lowest estimate suggests that scale diseconomies can arise after a water provider reaches 100 000 connections, while most other studies suggest a much larger scale is required before scale diseconomies become present.

New Zealand's two largest water providers, Watercare and Wellington Water, manage about 416 000 and 140 000 connections respectively. This suggests that the majority of water providers in New Zealand are well below the size at which scale diseconomies may arise.

Alongside economies of scale, there is also the issue of whether the provision of water services can achieve economies of scope. Some studies examining economies of scope have focused on vertical integration of various stages of water supply – for example, on the combination of wholesale water capture and treatment, and final reticulation to the customer. In a review of the literature, Berg and Marques (2010) note that the results are mixed, but that on balance the existing literature suggests vertical integration has some advantages. Saal et al. (2013, p. 93) conclude that "there is considerable evidence for the existence of vertical scope economies between upstream water production and distribution".

Studies considering economies of scope in water provision have also examined whether integrating activities (such as the joint undertaking of water supply and wastewater activities) have benefits. The results from these studies are also mixed. Some studies found significant economies of scope between water and sewerage activities (Nauges & Van den Berg, 2008; Malmsten & Lekkas, 2010), while others found inconclusive evidence or diseconomies of scope (Saal et al., 2013).

Overall, the international literature that compares different industry structures for water services provides three broad lessons regarding the structure of the water industry in New Zealand.

- The findings regarding economies of scope are mixed – some studies suggest that integrated management of drinking water and wastewater is more productive; others suggest that these services are more efficiently provided by separate agencies. Therefore the literature does not present a compelling case to move away from New Zealand's horizontally integrated approach.
- The international evidence is similarly mixed regarding vertical integration (whether bulk water collection and distribution are provided together), so does not present a strong case to justify a change from the current approach in New Zealand.
- Most studies find that the provision of water services has economies of scale, but only up to a certain point. New Zealand providers are generally well below the scale at which diseconomies have been found to occur – indicating that mergers might enable water providers to capture economies of scale.

Is merging water providers an effective way of harnessing scale economies?

While population growth will incrementally increase the scale of water provision in New Zealand's high-growth cities, a more substantive increase in the scale of provision would require some form of consolidation (ie, merging existing water providers). A number of other countries have taken deliberate steps to encourage or require mergers of water providers (Box 10.3).

Box 10.3 **International examples of consolidation in the water industry**

England and Wales had more than 1 000 statutory water providers in 1956. By the early 1970s the government identified a need to consolidate the approach to water management to meet increasing demand and to improve the control of pollution. The government restructured the industry by establishing 10 water authorities in the Water Act 1973 (OFWAT, 2006). The English and Welsh water

industry is now characterised by the presence of 10 large water and sewerage companies (the former water authorities, accounting for more than 70% of the water sector turnover) and by 12 water-only companies (Bottasso & Conti, 2007).

Prior to the early 1990s, responsibility for water services in Scotland was split among 12 Regional and Island Councils. In the early 1990s these providers were merged into three regional public services providers. In 2002 the Scottish Parliament passed the Water Industry (Scotland) Act 2002, which merged the three providers into a single entity, Scottish Water. Water New Zealand (sub. 30) suggested that Scotland is an exemplar of what can be achieved through reform.

The Netherlands introduced the Water Supply Act in 1957, which specifically promoted integration between operators to achieve economies of scale. Since 1970 the central government has encouraged mergers of water services, so that they have a minimum of 100 000 connections. At the end of 2007 the Netherlands had 10 operators for drinking water. In contrast, wastewater services remain highly decentralised, with 443 wastewater operators (Marques, 2010).

While several countries have deliberately promoted consolidation in the water industry, and there is broad agreement regarding the existence of economies of scale up to a certain point, relatively few studies have considered the conditions under which mergers of water providers are most successful, and the processes by which mergers are undertaken. Even so, several authors have concluded that benefits are on offer through merging small neighbouring water providers.

Tynan and Kingdom (2005) use data from 270 water and sanitation providers to examine the relationship between utility size and its operating costs. Their findings suggest that smaller municipalities may face higher per-customer costs. The authors note that the results are based on providers in particular locations so they should be used with caution, but that the findings suggest that "neighbouring small providers may be able to lower customer charges by operating as one utility" (Tynan & Kingdom, 2005, p. 4). In a review of potable drinking water providers in England and Wales, Bottasso and Conti (2007, p. 14) find that for all but the largest companies (such as Essex & Suffolk Water, which provides water services to 1.8 million customers), "benefits would arise from merging nearby water utilities, but that these benefits are relatively small".

However, some other studies cautioned that any expansion or merger of water providers also needs to consider implications stemming from the density of water supply. In a study of water providers in the United States, Torres and Paul (2006, p. 118) note the following:

> Consolidating water utilities into fewer and larger firms could … generate volume/scope economies and thus lower unit costs of water supply if it increases output density. However, any merging or "regionalization" policy based on economies of scale must recognize that the resulting firms will not only produce more water but also service more customers and larger service areas, and that significant diseconomies may be associated with such network expansion.

Local Government New Zealand (LGNZ) (sub. DR130, p. 6) also cautions that scale economies are not ubiquitous:

> The OECD view that there are relatively small economies of scale to be achieved in the waters appears to be backed up by much of the academic work on water networks. Clearly where there are economies of scale to be found, such as in Wellington where councils operate a single network, new governance options should be examined. Elsewhere there is a risk of significant diseconomies of scope.

In a study examining economies of density, scale and scope in the provision of potable water and wastewater in four countries (Brazil, Moldova, Romania and Vietnam), Nauges and van den Berg (2008) found that networks with greater customer density had lower costs of provision. But they note that the cost structure of water and sewerage utilities varies significantly both within and between countries.

How do mergers affect productivity?

Alongside the potential to generate economies of scale and scope, a range of other possible efficiencies may arise from mergers. NZCID (sub. DR132, p. 16) notes that larger infrastructure providers "are able to leverage labour resources more efficiently to enhance strategic capability and deliver a broader, more specialised range of functions". Röller, Stennek and Verboven (2006, p. 3) identify the following potential benefits:

- rationalisation of production, which refers to cost savings from reallocating production across firms, without increasing the joint technological capabilities;
- technological progress, which may stem from the diffusion of know-how or increased incentives for research and development;
- purchasing economies or savings in factor prices such as intermediate goods or the cost of capital; and
- increased managerial efficiency.

Studies of post-merger performance in the Dutch water sector, and in England and Wales, did not identify significant reductions in inefficiencies within the water companies. However, water providers in these counties were already operating at a much greater scale than New Zealand before the mergers were undertaken. An analysis of mergers in the Japanese water industry, where water provision is highly fragmented, found small positive impact of consolidation on efficiency (Zschille, 2014).

In an analysis of the potential gains from integration of the German drinking water sector (where water provision is more fragmented than in New Zealand), Zschille (2014) identifies substantial gains from horizontal integration in the majority of cases. The main source of efficiency gains were a result of technically more efficient operations rather than changes in market structures. Wellington City Council (whose water services are delivered by a sub-regional CCO, Wellington Water) suggests that other councils are likely to benefit from more integrated delivery:

> Our own experience with Wellington Water is already demonstrating gains in capability and procurement which we anticipate will deliver efficiency and effectiveness gains. (sub. DR118, p. 16)

F10.3 Governments in other jurisdictions have deliberately sought to increase the scale of water provision through mergers of existing providers. This can deliver scale economies and gains in capability. However, mergers have not always resulted in increased performance or efficiency, which points toward a need for careful assessment of costs and benefits before undertaking any merger.

Local public monopoly provision

Because councils, or CCOs, are the only providers of water services and infrastructure in the area where they operate, water services can be characterised as local public monopolies. Unregulated monopolies typically under-provide the right quantity and quality of the good or service, and at a higher price than is required to cover the costs of provision in the long run (OECD, 2009).

As set out in Chapter 9, councils face relatively weak incentives to proactively develop infrastructure to accommodate urban growth. Inquiry participants reported that this problem is particularly acute for water infrastructure, with some developers suggesting that connections to the water network are "rationed". These issues appear to be more acute in the water industry as opposed to other network utilities such as power and telecommunications, which also have the characteristics of natural monopolies. Box 10.4 considers the characteristics that lead to water infrastructure being provided in New Zealand, as in many other countries, by local public monopolies. It also explores some of the natural characteristics that differentiate water from other utilities such as electricity and telecommunications.

Box 10.4 **Urban water systems**

Urban water systems exhibit strong natural monopoly characteristics.

- High capital costs are involved in providing infrastructure for the collection, storage and or treatment of water (both drinking water and wastewater) to acceptable standards of quality.
- Fixed costs are very high in comparison to variable costs (more than 70% for urban water supplies in the United Kingdom).
- The system for delivering clean water and receiving wastewater is typically a network with large scale economies.
- Water, due to its weight, is expensive to transport either above or below ground. Water transport costs for every 100 km represent about 50% of the wholesale cost of water in the United Kingdom, compared to 5% for electricity and 2.5% for gas. As a result, water tends to be sourced and treated/disposed of locally.

A number of characteristics have led to urban water systems being developed under public provision.

- Urban water services have few substitutes.
- The provision of safe drinking water and the disposal of wastewater have strong, positive externalities, for both people (public health) and the environment.
- The provision of urban water services is a "merit good" in the sense that society considers these services to be important, irrespective of a person's ability to pay.
- Wastewater management has "public good" characteristics in that, once provided, many members of society benefit. At the same time, it is difficult to exclude individuals from enjoying the benefits of a cleaner, healthier environment once the decision is made to collect and treat all wastewater in a community.
- Water and sanitation projects are usually capital intensive – they involve high initial investment and long payback periods. The resulting infrastructure is very specific, largely invisible and cannot be used for other purposes.

Source: Gee, 2004; Hanemann, 2006; Manso, 2007; OECD, 2009; Wichelns & Qadir, 2015.

As set out in Box 10.4, there are good reasons to explain the emergence of local public monopoly provision. But the combination of market power and public ownership for water provision in New Zealand has led to concerns such as those noted below.

- *An inability to exploit economies of scale in water supply and wastewater treatment.* This can arise due to how individual councils have provided water services in the past. Few incentives may be available to consider alternative mechanisms for delivery that can capture some economies of scale or scope.
- *Water not being treated as an economic good*. Some councils do not price water efficiently to manage demand (Chapter 8).
- *Unclear conditions of supply*. The relationship between customers and the local authority can often be administrative rather than based on explicit terms and conditions between the parties (Water New Zealand, 2011).
- *Weak incentives to minimise supply costs*. Weak incentives may enable suppliers to seek an "easy life" rather than pursue productivity improvements or opportunities to increase revenue. Suppliers that behave in this way might have higher cost structures and/or be slow to service new developments, even when this could lead to increased net revenue. Either approach would hold back the supply of new serviced land for housing.

- *Weak accountability*. Some councils combine monopoly ownership, governance, management, pricing, customer representation and some regulation of water services, leading to unclear accountability for access to, and the efficient delivery of, service (Water New Zealand, 2011).

Inefficient pricing

Alongside these issues, the provision of water by local public monopolies can reduce the incentive to ensure that prices for water are set efficiently. Water services are governed by elected local councillors who operate in multi-purpose entities and face competing demands for capital expenditure. In addition, decision making "can be influenced by local vested interests, and the popularity of more visible social infrastructure, rather than analysis of the needs of communities for essential, but less visible infrastructure" (Water New Zealand, 2011). Inefficient, or politically motivated, pricing decisions have the potential to undermine the efficient delivery of water services, and to hinder a responsive supply of infrastructure to support growth.

- *Under-recovery of capital costs.* As discussed in Chapter 9, councils have tools in place to recover the costs associated with urban growth from the development community through development contributions. However, elected officials may face pressure to keep these charges low; this may result in under-recovery of costs. In the absence of full cost recovery, cross-subsidies are required to support growth. This is likely to create a significant disincentive toward expanding the network to accommodate growth.
- *Under-recovery of operating costs*. Full recovery of the operational costs associated with maintaining water networks can also be subject to political pressures. According to Water New Zealand (2011, p. 14), "council decisions are dominated by the political imperative to keep rates down". Where this results in under-recovery of operating costs, existing assets are likely to be poorly maintained, or renewals deferred for future generations to deal with. Indeed, some available evidence suggests that councils are deferring infrastructure maintenance. As discussed in Chapter 8, forecasts in the Long-Term Plans of high-growth councils point toward a growing and potentially under-funded requirement for infrastructure renewals.
- *Over-charging.* Monopoly provision entails the risk that prices will exceed the price of supply. For example, Councils might overcharge for water services, particularly if their other revenue sources are under pressure.

F10.4 While water services have a range of characteristics that have led to local public monopoly provision, the approach has a number of well-recognised issues. One particular problem is that the provision of water services, particularly water pricing, is susceptible to political interference. This can inhibit efficient and responsive provision of water infrastructure to support urban growth.

There appears to be an issue with recovering the costs of providing water in New Zealand's largest city; in particular, how Watercare recovers costs through its Infrastructure Growth Charge (IGC). How the charge is calculated and applied is outlined in Box 10.5.

Box 10.5 **Watercare's Infrastructure Growth Charge**

Watercare receives no funding from Auckland Council. It raises most of its revenue through volumetric water charges, as discussed in Chapter 8. Watercare also imposes an Infrastructure Growth Charge (IGC). This is a fee applied to all new developments connecting to Watercare's network and to existing non-domestic customers that increase demand for water and wastewater.

The rationale for the IGC is that necessary upgrades are paid for by people who increase demand on the system, rather than placing the burden of costs on existing customers. The IGC is stated to be a recovery of capital investment costs only. Operating costs associated with new infrastructure are funded from water and wastewater consumption charges.

Watercare notes that an IGC is a contractual agreement between Watercare and the person seeking the connection. Because water connection costs are recovered through the IGC, Auckland Council's development contributions policy does not include any charges for water or wastewater infrastructure.

How the IGC is calculated

Watercare's approach to calculating an IGC is summarised by PwC (2015) as follows:

> The approach to calculating metro IGCs essentially averages growth capex [capital expenditure] over a rolling 15-year window (five historical, and 10 forecast), and allocates these costs to growth across the entire metropolitan area of the city for the same period.
>
> Consequently, rather than trying to identify the capacity of individual projects in detail, the metro approach contemplates that Watercare has an ongoing growth investment need, and that this investment needs to be recovered from the growth community. This is deliberately an averaging approach. (p. 2)

With the exception of nine rural areas, the ICG is a flat charge that does not vary depending on the location of the dwelling. Watercare provides a 33% discount for properties of less than 65m^2 on the basis that they use less infrastructure on average; but, otherwise, the IGC does not vary depending on the characteristics of the dwelling.

Source: Watercare, 2014; Auckland Council, 2014; PwC, 2015.

An IGC is an important tool in enabling growth. Like development contributions, IGCs allow the costs of growth to be recovered from the development community. If Watercare did not levy IGCs, general water and wastewater tariffs would need to rise by an average of 13% to cover the costs of growth (PwC, 2015). Passing the costs of growth-related infrastructure to the wider community would likely create significant opposition to growth.

Given its important role in enabling growth, the IGC should be retained. However, the Commission has identified a number of issues with the IGC.

An IGC should recover the full costs of growth

A report prepared for Watercare by PwC (2014) reviewed Watercare's IGC. It explained that where a service benefits a particular person or group, or where a particular person or group has caused the cost to be incurred, Watercare's revenue and financing policy states that that person or group should pay for the cost of the service. Consistent with that approach, Watercare's IGC policy seeks to recover the costs of new infrastructure which caters for growth from the "growth community". However, PwC (2015, p. 2) notes that Watercare does not currently recover the entire cost of growth through the IGC:

> There is a programme to gradually move to full recovery, but under current charges Watercare expects to recover only around 66% of the total assessed IGC.

Given that the costs associated with an IGC are generally passed on to home buyers, under-recovery of infrastructure costs might result in some benefit in terms of the upfront cost of a dwelling. However, infrastructure costs need to be recovered from somewhere, and cross-subsidising the costs of growth from other sources is likely to create a disincentive among councils and their CCOs to accommodate growth. To the extent that any shortfall from an IGC is recovered from existing residents, under-recovery is likely to reduce community acceptance of growth. Where this leads to an undersupply of connections it will limit the supply of infrastructure-enabled land and contribute to higher house prices.

F10.5 Watercare's Infrastructure Growth Charge does not currently recover the full costs of new infrastructure to support growth. This has the potential to create disincentives on the council controlled organisation and existing residents to accommodate new growth.

R10.1 Watercare should revise its approach to the Infrastructure Growth Charge so that the full costs are recovered.

An IGC should reflect true costs of supply

As discussed in Chapter 8, infrastructure costs can vary significantly depending on the dwelling location and type. Reflecting these differences, many councils have set development contributions policies that reflect the variations in the cost of delivering infrastructure in different locations. For example, charges levied under Christchurch City Council's (CCC, 2015b) draft development contributions policy vary depending on the "catchment" area where a development occurs. Some policies also vary the development contributions depending on the type of dwelling – for example, TCC's policy has a special rate for infill housing (Tauranga City Council, 2014c).

Before Auckland Council was formed in 2010, Watercare provided bulk water services to the various city and district councils in the Auckland region. The individual councils each recovered water infrastructure costs through their development contributions. In the case of Manukau City Council and Auckland City Council, CCOs (Manukau Water and Metrowater) both levied a form of growth charge for drinking water and wastewater (PwC, 2014). Following the amalgamation, Watercare assumed responsibility for water and wastewater operations for the former councils in the Auckland region meaning they inherited a diverse range of charging arrangements. One advantage of adopting a flat charge is that it is relatively straightforward to calculate and is less costly to administer.

A number of inquiry participants criticised the IGC on the grounds that it is a flat charge that does not reflect the true costs of development:

> A single infill property would likely incur the same development contribution costs as a multi-unit complex of 100 units (where the bulk infrastructure costs were smaller on a per-unit basis). Watercare would typically charge the same $12,000 water connection fee for each of the units in the 100-unit complex as they would for a stand-alone house. (Registered Master Builders & Construction Strategy Group, 2015, p. 57)

> The cost of connecting water to a new home has recently been increased to $12,000 by Auckland's Watercare. This cost does not appear to be related to the actual cost of connecting water to a new dwelling. (New Zealand Property Investors Federation, sub. 62, p. 4)

While a desire to keep administrative costs as low as possible is a worthy goal, it has been widely accepted for some time that differentiated charges are superior to average-cost approaches from an infrastructure and land-use efficiency perspective (Tomalty & Skaburskis, 1997). In addition, this approach appears to be broadly accepted where water infrastructure is funded through development contributions. As discussed in Chapter 9, a new set of principles have recently been introduced that provide direction to councils about what they can use development contributions for and how to apply them. These principles discourage councils from applying uniform charges across an entire district. Such an approach would fail to recognise localised circumstances or characteristics that may materially increase or reduce the cost of infrastructure requirements.

Three advantages in applying different charges in catchment areas are noted below.

- A flat charge may distort the true cost of decisions to develop in certain locations.
- A differentiated charge would allow Watercare to demonstrate what growth charges are being used for and why. Tomalty and Skaburskis (1997, p. 1997) note that the "greater planning detail and the fact that funds raised in one area cannot be spent in another, make the area-specific approach more transparent and provide greater accountability in terms of the spending of development charge revenues".
- To the extent that certain types of development result in lower infrastructure costs than others, a flat charge will result in a cross-subsidy between different types of dwelling. This might result in a situation in which smaller and more affordable dwellings are cross-subsidising larger standalone dwellings. Cross-subsidy is unlikely to be occurring currently because Watercare does not yet recover the full cost of

infrastructure through their growth charges; however, some dwellings will receive a greater discount than others.

Several inquiry participants supported a change in the way that the IGC is calculated to better reflect the costs of installing infrastructure:

> An IGC should be implemented to better reflect local factors that affect the cost of installing new infrastructure. (Orakei Local Board, sub. DR135 attachment 2, p. 3)

> We support removing the flat charge and replacing it with charges that reflect the true costs of each development. It is not equitable to charge the same for each unit in a complex as you would for a house on a greenfield development. (Property Council New Zealand, sub. DR100, p. 8)

> We note the discussion of the Infrastructure Growth Charge, including the lack of pricing signals that the IGC sends developers as to the true cost of development. In principle, we support development charges which reflect the true cost of service provision. (NZCID, sub. DR132, p. 18)

R10.2 Watercare should change its approach to calculating infrastructure growth charges, to better reflect the underlying economic costs of supply in different locations and for different types of dwelling.

An IGC should be subject to checks and balances

A final issue with the IGC is that developers have limited opportunities to challenge these charges. This issue was raised by Property Council New Zealand which suggested that the IGC should be subject to the same processes as development contributions:

> Council Controlled Authorities, who charge infrastructure growth charges (e.g. Auckland Council's Watercare Services Limited), should have these charges subjected to the same rules, notification and appeal rights as development contributions. Otherwise there is little scrutiny over the level of these charges and whether they are appropriate. (sub. 33, p. 18)

As set out in Chapter 9, the Local Government Act 2002 Amendment Act 2014 introduced two mechanisms that allow a person to challenge the nature of development charges: councils are obliged to reconsider development contributions if this is requested; and a developer may lodge an objection with an independent commissioner regarding the amount that a territorial authority has assessed as being payable.

It is unusual that the checks and balances that apply to development contributions can effectively be by-passed if responsibility for certain infrastructure services is delegated to a CCO. Essentially, charges for water and wastewater infrastructure development in Auckland are carved out from Auckland Council's development contributions policy and fall instead under Watercare's IGC scheme. However, those IGCs are not subject to the same checks and controls as development contributions, and no statutory or other checks and controls are targeted specifically at them. No formal objection or appeal mechanism against the imposition or costing of an IGC exists, other than seeking judicial review or making a complaint through Watercare's standard complaints procedure.

In addition, Watercare is not required to publish information explaining how and why it makes the decisions it does about IGCs. This is different from the legislative rules concerning development contributions, which require local authorities to make a development contributions policy that explains and justifies the way they calculate development contributions, and identifies the assets for which development contributions will be used.

R10.3 Watercare's Infrastructure Growth Charge should be subject to the same appeal processes as development contributions.

10.5 How could the governance arrangements for water infrastructure be improved?

As set out in the preceding chapters, supply of infrastructure is a critical component of effective land supply. The Commission has focused on how the governance arrangements for water infrastructure act to support a responsive supply of land for housing.

Review of the delivery approach to meet the needs of current and future communities

Recent amendments to the Local Government Act 2002 (the Local Government Act 2002 Amendment Act 2014) have created a legislative requirement for local authorities to review the effectiveness of their arrangements for infrastructure and other services:

> A local authority must review the cost-effectiveness of current arrangements for meeting the needs of communities within its district or region for good-quality local infrastructure, local public services, and performance of regulatory functions. (Local Government Act 2002 Amendment Act 2014, p. 17A (1))

The reviews must consider options for the governance, funding, and delivery of infrastructure, including, but not limited to:

- responsibility for governance, funding, and delivery being exercised by the council;
- responsibility for governance and funding being delegated to a joint committee or other shared governance arrangement;
- responsibility for governance and funding being exercised by the council, but responsibility for delivery being delegated to a different entity, such as a council-controlled organisation (either of the council, or of which the council is one of the shareholders), another council, or another organisation. (DIA, 2014)

The legislation provides flexibility around the timing of these reviews, but in most circumstances they should be undertaken within 6-year intervals.

Robust review of the arrangements for delivery of local infrastructure and other local government services is a good practice. However, for fast-growing territorial authorities, it is important that reviews are undertaken in such a way that considers the effectiveness of current arrangements for meeting the needs of both *current and future communities*. Where councils are anticipating significant demand for new dwellings, they should ensure that governance and delivery models for infrastructure examine whether arrangements are suited to enabling a responsive supply of infrastructure to support growth.

R10.4 When reviewing the cost-effectiveness of arrangements for infrastructure services under part 17 of the Local Government Act 2002, councils should ensure that the arrangements facilitate a responsive supply of infrastructure to support urban growth.

Options for the reform of water infrastructure

In considering how governance arrangements for water might be improved, the Commission has examined the approach to water infrastructure in other jurisdictions. The approach taken internationally varies widely, but Marques (2010) classifies three main institutional configurations (Box 10.6). Marques (2010) notes that the three models have each been in effect for at least two decades, that there are no 'perfect' models, and that each model has virtues and some problems.

Box 10.6 **International approaches to water infrastructure**

English model

Water and wastewater services in England and Wales have been fully privatised since 1989. Private operators are responsible for managing water systems, and also own the water assets. Water providers are overseen by a sector-specific independent regulatory agency, OFWAT.

French model

Management of water services in France are awarded to private companies through public tenders with contractual arrangements that set out the rights and obligations of private operators. Ownership of water assets is always retained within the public sector. Most countries that follow this model have also created regulatory agencies that supervise the quality of water services and can intervene to resolve conflicts and to respond to unforeseen circumstances.

Public operator model

Under the public operator model, the public sector (central or local government) is responsible for the management of water services and also owns the assets. This model is often accompanied by independent regulatory agencies.

Source: Marques, 2010.

In the context of the three models set out in Box 10.6, the vast majority of water services in New Zealand fit within the public operator model.

The English model is not currently applicable in New Zealand, as the privatisation of council water services is not permitted under section 130 of the Local Government Act 2002. A local government organisation must not use assets of its water services as security for any purpose, nor divest its ownership or other interest in a water service except to another local government organisation. The Commission has not considered the applicability of the English model for water supply in New Zealand as the Terms of Reference for this inquiry exclude consideration of changes to the ownership of infrastructure assets.

French approach

Prior to 2002, Councils were able to adopt the French approach to water provision (to contract with the private sector, but retain ownership of assets). The most notable example of this was undertaken by Papakura District Council (now part of Auckland Council) in 1997. The Council established a contract with a private water company (Veolia) to provide drinking water and wastewater services for 30 years.

The Office of the Auditor-General (OAG) (2006) reports that Papakura District Council sought to achieve the following benefits from the franchise agreement:

- lower-cost services: it was considered that costs would be controlled through linking water charges to the Auckland Average Price for water and wastewater services, and through competitively priced infrastructure charges, such as connection charges;
- high-quality services: dedicated staff would be responsible for operating the franchise, with a high level of ownership and commitment to providing a good-quality service;
- a better management mechanism: the Council would not be burdened with the responsibility of direct management;
- the opportunity to bring in international expertise;
- improvement of existing assets and a better ability to meet future growth requirements; and
- transfer of risks related to direct water supply and management of wastewater collection to a third party.

The ability of councils to establish contracting arrangements for water services was severely curtailed through legislative changes introduced in the Local Government Act 2002. Section 136 of that Act set a 15-year limit on any contracts for water services and introduced the following conditions:

> If a local government organisation enters into a contract under subsection (1), it must retain control over all matters relating to:
>
> (a) the pricing of water services; and
>
> (b) the management of water services; and
>
> (c) the development of policy related to the delivery of water services.

The restrictions relating to private contracts for provision of water services were examined as part of a review of the Local Government Act 2002 undertaken by the Department of Internal Affairs (DIA) in 2009:

> The LGA02 currently places a number of limitations on councils in regards to the provision of water services, through:
>
> - requiring councils to provide and maintain water services, including retaining ownership of water services;
> - placing limits on partnerships between councils and private organisations for the provision of water services – such as restricting contracts for any aspect of the water service to a maximum of 15 years; and
> - inhibiting the use public-private partnerships (PPPs) that involve long-term capital investment, including BOOT (build, own, operate and transfer) schemes.
>
> These restrictions are contrary to the principles of general empowerment, and remove the power of councils and communities to determine the mixture and level of services and method of service delivery that best meets their needs and preferences. There are no comparable restrictions on any other similar area of council services and infrastructure. (DIA, 2009)

The advice from DIA recommended repealing certain sections of the Local Government Act 2002 so as to remove unnecessary barriers to water infrastructure development. The proposal would have allowed:

- private supply of infrastructure to councils through schemes such as build, own, operate and transfer (BOOT) schemes;
- private operation of council supplies by franchise arrangements; and
- divestment of council supplies to the private sector, but with residual obligations on councils to maintain supply in the event of the failure of the private supplier.

This proposal was not adopted, and instead a more minimal set of changes were introduced in the 2009 Local Government Act 2002 Amendment Act. These changes:

- extended the 15-year limit on contracts and joint arrangements with the private sector to 35 years;
- provided for joint arrangements for BOOT schemes by allowing ownership of infrastructure by the non-council party during the period of the contract;
- repealed sections of the Local Government Act 2002 which required local government organisations that enter into a contract with the private sector to retain control over all matters relating to the management of water services; and
- clarified that franchise arrangements are not permitted (CAB min (09) 38/19).

The regulatory impact statement described the main limitations associated with the approach that was adopted:

> … although this option enables the greater use of PPPs councils would continue to be responsible for controlling pricing and policy. In practice, this would restrict their flexibility to develop contracts that best meet their communities' needs and preferences and, in some circumstances, it may not be appropriate or practical for councils to retain control over these functions. For example, in certain

> situations the service operator may have far greater knowledge of the operation, but would be unable to make policy decisions.
>
> In addition, this option would not allow councils to establish franchise arrangements for the delivery of water services. Therefore, in order to provide local government organisations with the full range of options to arrange their water services and develop contracts in a manner they see fit, it was regarded as necessary for there to be more substantial amendments to the LGA02. (DIA, 2009)

As set out earlier in this chapter, the public operator model for delivery of water services has a range of well-recognised problems. In particular, as monopoly providers councils do not face the same competitive pressure that other businesses in competitive markets face. Where natural monopoly precludes competition within a market, competition for the market via contracts between public and private agents could go some way to alleviating this problem.

F10.6 The current legislative restrictions on the use of contracting or franchise arrangements for delivery of water services limit the ability to create contestability in water provision.

However, contracting is not necessarily straightforward. Marques (2010) notes that this model relies on robust competition to win contracts (so as to avoid excessive rents and profits), and well-designed and monitored contracts. Chong et al. (2006) sets out a range of other risks that need to be mitigated for contracting arrangements to be effective (Box 10.7).

Box 10.7 **Difficulties in contracting arrangements**

While contracting can create ex ante competition for provision of water services, public authorities can face a number of complications once a contract has been established. There are a number of reasons why an operator may not meet the terms of the contract. For example, the best bids for a contract may come from overly optimistic operators who unintentionally underestimate costs. Alternatively, operators might strategically underestimate costs to win the contract and then provoke renegotiations with a "captive" local public authority in the future. Renegotiation of contracts may also be necessary as conditions change over the duration of the contract.

However, where suppliers have not met the terms of a contract, a public authority faces switching costs in changing suppliers that may induce it to stick with an inferior operator.

- If a public authority switches suppliers, it could face political embarrassment and service interruption, reduce incentives for private parties to invest (fearing early contract termination), and would need to organise a new tender process.
- On the flipside, these switching costs give firms an incentive to renegotiate contracts to obtain higher prices, misrepresent costs, and provide low-quality service (to the extent that this behaviour is not monitored and/or quality is not perfectly contractible).
- The problems that stem from imperfect and asymmetric information are even greater if the incumbent creates knowledge-specific capital that gives them a cost advantage. Further, the incumbent is best informed with regard to quality and the amount of future investments needed to operate the service. As such, at the contract renewal stage, the winner of the original contract has an advantage over other potential bidders.

Source: Chong et al, 2006, pp. 153–54.

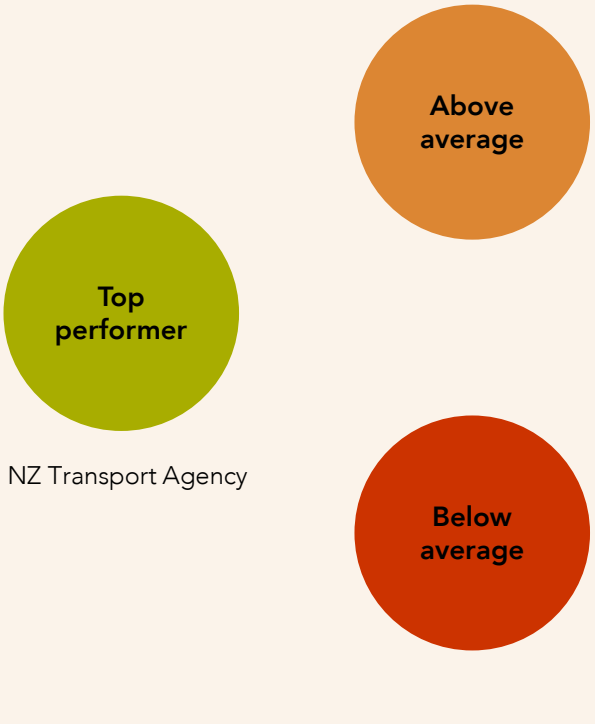
The prohibition on use of franchise arrangements that was established in the Local Government Act 2002, and retained in the 2009 Amendment Act, removes one avenue by which contestability could be injected into the water industry. However, significant challenges exist around designing an appropriate contract, monitoring the contract, and ensuring that an incumbent is not in an unduly advantaged position for future negotiations. In addition, the success of any franchising model relies heavily on strong competition to win

the contract. Given the very limited participation of private providers in providing water services in New Zealand, it is unclear how effective ex ante competition would be.

Even so, the Commission sees merit in providing councils with a wider range of options for the provision and management of water services. The challenges around designing and managing contracts can never be overcome by prohibiting the opportunity to build experience and capability.

Some evidence around the capability of public sector organisations in infrastructure procurement, which may be relevant and indicative of the ability to design and manage contracts more generally, comes from a recent NZCID (2015b) survey of 32 private sector senior industry leaders (CEOs, GMs, Directors, Partners, COOs, Chief Engineers and Managers). Headline results are presented in Box 10.8 below.

Box 10.8 **Ratings of public sector organisations on their procurement processes**



- Cities with populations between 50 000 and 100 000 (ie, Palmerston North)
- Department of Corrections
- Large Metro Councils > 100 000 population (ie, Hamilton, Tauranga)
- Ministry of Education
- Transpower
- Waterfront Auckland

- Auckland Council
- Auckland Transport
- CERA
- Christchurch City Council
- District Health Boards
- Districts with populations < 50 000
- Ministry of Defence
- Ministry of Justice
- Watercare
- Wellington City Council
- Wellington Water

Source: NZCID, 2015b.

Note:

1. Above-average performers and below-average performers are listed in alphabetical order.

The results suggest not only that the NZTA provides significant benefits for local authorities in efficient procurement, but that local authorities have scope to leverage off the NZTA's expertise in contracting with the private sector. Further, it is notable that the Ministry of Education rates as an above average performer in procurement after only entering into PPP arrangements in 2012. Agencies are able to "learn by doing".

The Commission concludes that while on the available evidence the performance of local authorities with respect to working with the private sector over the provision of infrastructure is variable – with water providers below average in their procurement practices – there are no good reasons to prohibit such arrangements where opportunities are available to learn from and leverage off existing expertise in the public sector.

R10.5 The Local Government Act 2002 should be amended to provide councils with a wider range of options for providing and managing water services. Legislative barriers to the use of contracting arrangements for water services should be repealed.

10.6 Council controlled organisation models

Within the public operator model, two distinct approaches to the provision of water services have emerged in New Zealand. Most councils have in-house business units that are responsible for water services, while some councils have established CCOs with specific responsibility for water services.

CCOs are allowed for under the Local Government Act 2002, and can be registered as a company with 50% or greater council ownership, or as another legal entity where a council or councils control more than 50% of voting rights (Local Government Infrastructure Advisory Group, 2013). The infrastructure assets for which a CCO is responsible can be formally owned by the CCO or leased from the council.

All high-growth councils that are the focus of this inquiry operate at least one CCO. CCOs are commonly used to manage community infrastructure such as galleries or sports facilities, and regional transport hubs. A stocktake of CCOs conducted in 2007 found a total of 257 CCOs across New Zealand (MWH Consultants, 2009).

Two CCOs are involved in providing and managing water, yet the roles of these CCOs are quite different. Transport infrastructure in Auckland is also delivered by a CCO (Box 10.9).

Box 10.9 **CCOs involved in water and transport infrastructure**

Watercare

Watercare provides water services and wastewater services to about 1.4 million people in the Auckland region (stormwater services remain the responsibility of Auckland Council). The company's obligations to deliver water services and wastewater services for Auckland are set out in Part 5 s 5(1) of the Local Government (Auckland Council) Act 2009.

Watercare is wholly owned by Auckland Council, and the council appoints the company's board of directors which in turn appoints the chief executive. Watercare must consult with Auckland Council on its draft statement of intent (SOI) (which includes a set of objectives and performance measures) and report quarterly to the Council on its operations. Through this process, the Council has the opportunity to shape Watercare's strategic direction and to monitor performance.

Watercare funds all its activities, receives no money from the council or from central government, and is prohibited by statute from paying a dividend to Auckland Council. Watercare owns assets valued at about $8 billion. Investment in new infrastructure is funded by a combination of revenue from water charges and wastewater charges, IGCs, and external borrowing. Operational costs are funded through water metering.

Wellington Water

Wellington Water was established in September 2014 to provide three waters services to the Wellington Region. The CCO is jointly owned by five local authorities: Wellington City, Wellington Region, Hutt City, Porirua City and Upper Hutt City. Wellington Water employs about 180 staff and manages expenditure of about $175 million to maintain and upgrade water assets worth $2.7 billion.

The Wellington Water Committee (comprised of one representative from each shareholder council) sets expectations for Wellington Water that are reflected in Wellington Water's SOI. Wellington Water is governed by a Board of independent directors who are appointed by the shareholder councils. The chair of the Board reports quarterly to the Wellington Water Committee.

Wellington Water manages water infrastructure and delivery, but the assets and liabilities have been retained with the five Councils. Investment and pricing decisions also remain under the direct control of each Council (unlike Watercare in Auckland).

The two main benefits that are hoped to be achieved through the regional CCO approach are economies of scale (critical mass in terms of expertise; scale in purchasing power; and joint tendering) and the ability to take a regional approach to infrastructure management. This will enable effective

allocation of priorities, such as the prioritisation of cross-boundary projects that provide a large benefit to the region, but would not justify the attention of any single council.

Auckland Transport

Auckland Transport was established under the Local Government (Auckland Council) Act 2009 with the purpose of contributing "to an effective, efficient, and safe Auckland land transport system in the public interest".

Its main tasks include:

- designing, building and maintaining Auckland's roads, ferry wharves, cycleways and walkways;
- coordinating road safety and community transport initiatives such as school travel; and
- planning and funding bus, train and ferry services across Auckland.

Auckland Council is Auckland Transport's sole shareholder. Auckland Council agrees an SOI with Auckland Transport, which contains performance measures for transport. Council also sets the overall strategic direction and develops a Long-Term Plan, which sets out transport funding. Auckland Transport will provide regular reports on its performance to Auckland Council.

All decisions relating to the operation of Auckland Transport are made by, or under the authority of, its Board. The Board is appointed by Auckland Council, and a representative from the NZTA serves as an advisor to the Board. Unlike Watercare, Auckland Transport is funded by the NZTA and Auckland Council and does not administer any charges or levies. It also differs from Watercare in that it does not own transport assets.

A significant body of literature exists that examines the establishment of arm's-length agencies to carry out public tasks (eg, Pollitt & Talbot, 2004). This literature presents a range of advantages and disadvantages commonly attributed to the approach (Table 10.2).

Table 10.2 Arm's-length delivery: selected advantages and disadvantages

Advantages	Disadvantages
Specialisation – taking the agency out of a general multi-purpose organisation can enable it to focus on a specific set of objectives, which can ultimately improve outcomes; rather than having the multi-faceted and often competing objectives facing councils.	**Loss of coordination** – the establishment of arm's-length agencies can result in a loss of coordination and disjointed decision making because of the different priorities of the various agencies. This issue is particularly relevant given the strong interconnections between different infrastructure assets.
Independence – distance from political pressures allows the development of a culture focused on serving the interests of citizens/members.	**Lack of responsiveness to owner** – separate agencies can be slower than a directly controlled business unit to respond to issues raised by an owner.
Closer to the consumer – specialisation makes it easier for key stakeholders to identify, participate in, and be consulted about, the work of the organisation.	**Higher overhead costs** – the operation of separate entities might result in higher overhead costs.
Greater transparency – an arm's length agency can be subject to a more contract-like regime, specifying performance objectives and budgetary limits.	**Lower community accountability** – the devolution of services could be perceived as undemocratic on the grounds that elected officials have less control of the staff responsible for service delivery.
Skills – specialisation might improve staff motivation, allow for the introduction of a higher degree of commercial know-how, and attract employees from more diverse backgrounds.	

Source: Pollitt et al., 2001; Gill, 2002; Plimmer Consulting, 2012; Local Government Infrastructure Advisory Group, 2013; OAG, 2012b.

Many of the advantages and disadvantages set out in Table 10.2 were noted in submissions which discussed the desirability of establishing CCOs for the delivery of water infrastructure. Wellington City Council reported favourably on its experience using the CCO model for water services:

> WWL [Wellington Water Limited] is able to provide a more integrated and efficient management of the Councils 3 water assets than was possible when all Councils operated independently. (Wellington City Council, sub. 21, p. 40)

Other inquiry participants also pointed out some of the benefits associated with a CCO approach:

> The obvious step to improve efficiency and effectiveness is to introduce CCOs and combined CCOs – particularly in provincial and rural New Zealand. This leaves the existing accountability mechanisms in place and yet harnesses both economies of scale and commercial disciplines. (NZCID, sub. DR132, p. 3).
>
> … moving to dedicated and stand-alone water entities would in general improve governance and clarify funding issues. (Water New Zealand, sub. DR97, p. 3)
>
> For the larger councils, we believe that the CCO option and a user pays model that accurately reflects costs is a possible governance model. (Property Council New Zealand, sub. DR100, p. 8)

Concerns raised by inquiry participants that were less supportive of the CCO approach tended to centre on the potential for a loss of coordination:

> The advantages from having a CCO of an independent, specialised, business-like approach is somewhat more than countered by the lack of full alignment with a democratically determined overall strategy originating from the Council and more creation of silos in decision-making and delivery. (Auckland District Council of Social Services, sub. DR81, p. 7)
>
> PNCC strongly disagrees that separate infrastructure entities can provide more transparency, particularly if this is combined with user charges. The LGA and Long Term Plan processes clearly show the funding sources for council expenditure. (Palmerston North City Council, sub. DR95, p. 5)
>
> The suggested solution of more CCOs is not a panacea … One of the advantages of having asset management within the same organisation that processes development approvals, is the level of integration that can be achieved both in planning and delivery, which in a unitary authority is particularly advantageous. (Tasman District Council, sub. DR96, p. 5)
>
> There is significant benefit of having direct control of water infrastructure within the council in terms of ensuring alignment with growth management and land use planning as well as alignment with infrastructure planning, funding and delivery. It should be noted that water supply projects are typically part of much larger infrastructure projects rather than being standalone projects. (TCC, sub. DR102, p. 127)

Some councils noted that the costs and benefits of the CCO approach will vary depending on local factors and that further investigation of the model is required:

> CCO's and public authorities tend to use the same (limited pool) consultants and thus probably tackle problems in similar ways. Costs savings of one over the other are probably relatively small… BOPRC [Bay of Plenty Regional Council] recommends not applying "a one-model suits all" governance approach. (Bay of Plenty Regional Council, sub. DR89, p. 7)
>
> The benefits of a Council Controlled Organisation (CCO) model for the Waimakariri District are yet to be investigated or justified and the S17A Service Reviews amendment to the Local Government Act provides the opportunity for that. (Waimakariri District Council, sub. DR108, p. 3)

Should Councils transfer responsibility for infrastructure services to CCOs?

Clear evidence about the relative performance of CCOs in facilitating a responsive supply of infrastructure to support urban growth is lacking. In part, this is due to the general paucity of data on infrastructure roll-out. This report (Chapter 8) has already recommended that councils to publish information the supply of infrastructure to support growth.

But even with better data, it is probably too soon to determine with any certainty whether the CCO model is making a material difference to land supply for housing. Each of the three CCOs involved in the supply of water and transport infrastructure has existed in its current form for less than five years. In the case of Auckland's CCOs, they have inherited the legacy systems of the former territorial authorities in the Auckland

area, while Wellington Water has incrementally expanded and was only established in its current form in September 2014.

Despite the relatively limited experience in using the CCO model to deliver core infrastructure services and range of views put forward regarding the merits of the CCO model, the Commission considers that the approach warrants further consideration by councils. As noted by the Local Government Infrastructure Advisory Group (2013), the success of any CCO will depend on the ability to harness the benefits of the approach, while putting measures in place to mitigate or avoid the potential disadvantages:

> Both models [CCOs and in-house provision] have advantages and disadvantages which councils would need to examine in the light of the nature of the infrastructure, potential efficiencies, local preferences, the capability and culture of the council (both elected members and senior management), and synergies or otherwise with other strategic delivery of the council. Whatever the model, it is critical that there is a high degree of transparency around the drivers of decisions and clear reporting mechanisms. (Local Government Infrastructure Advisory Group, 2013, p. 135)

From the perspective of land supply for housing, CCOs should seek to address the problems associated with the provision of services by local public monopolies, while avoiding potential coordination failures raised by submitters.

- *Appropriate separation from council.* One of the main issues associated with the provision of services by local public monopolies is the susceptibility for political pressures to lead to sub-optimal infrastructure outcomes. In particular, political pressures may lead to inefficient decisions around how capital and operating costs are recovered. The CCO model places these decisions at arm's length from councils. CCOs should be designed in such a way that enables water providers to recover the long-run marginal costs of supply for existing and future customers without compromising established quality standards. Pricing models should also enable CCOs to recover the full costs of growth through transparent and contestable growth charges.
- *Transparency.* Like in-house business units, CCOs are monopoly providers. CCOs should be subject to disclosure requirements, including asset management plans and pricing methodologies. Charges levied by CCOs to recover the costs of growth-related infrastructure should be subject to the same checks and balances that apply to development contributions charged by councils (the process by which developers can review or formally challenge development contributions is discussed in Chapter 9).
- *Integration with a council's land supply strategy.* Councils should ensure that CCOs responsible for the supply of infrastructure are aligned with their plans, by setting specific performance objectives relating to growth.
- *Seek economies of scale.* One advantage of the CCO model of provision is that it provides an opportunity for water providers to achieve economies of scale by merging at a regional or sub-regional level, as has occurred in Wellington and been proposed in the Waikato. Combining several in-house business units responsible for a certain infrastructure class into a regional or sub-regional CCO is likely to be significantly easier to accomplish than full council mergers.

R10.6 When reviewing their arrangements for good quality infrastructure under section 17 of the Local Government Act 2002, councils should consider whether the council controlled organisation model offers potential to capture scale economies, and to generate a more responsive supply of infrastructure to support urban growth.

Cost benefit is needed before adopting the CCO framework

While the Commission sees significant potential in the CCO model, it may not be the optimal approach for every council. For councils serving small communities, it might not be efficient to create multiple small-scale separate entities for different infrastructure services. In some cases, smaller councils may be able to generate efficiencies through mergers with neighboring councils; however, this might not be practical when urban areas are some distance from the nearest town or city (eg, Queenstown).

This points toward a need to undertake a robust analysis of different options before making major changes to the governance model for water. One leading practice in this respect is the approach taken by Hamilton City and Waikato and Waipa District Councils (Box 10.10).

Box 10.10 **Assessing the benefits of a sub-regional CCO for water services in the Waikato**

In 2012, the Waikato Mayoral Forum, which represents the 11 local authorities in the Waikato Region, engaged consultants to undertake a strategic review of water services and wastewater services in the region. The following year a study was commissioned by Hamilton City Council, Waikato District Council and Waipa District Council that identified potential to generate cost savings through integrated delivery of water services. Further analysis recommended that, subject to a detailed business case, a sub-regional CCO be established for the water and wastewater activities of the three councils.

As a result of these recommendations, Cranleigh (a private consulting firm) was appointed by the three councils in November 2014 to identify the best sub-regional delivery option. A business case was undertaken examining three options:

- remaining with the status quo;
- creating an Enhanced Shared Services unit serving the three councils; and
- creating a CCO owned by the three councils.

The report recommended that the three councils should transfer their water and wastewater assets into a jointly owned not-for-profit CCO. The main reported advantages of this approach relative to retaining the status quo and an enhanced shared services approach were:

- the CCO option is the only approach that offers scale across all key areas including staffing, systems, operations, and network ownership and funding;
- a CCO structure is also the only option that brings a full Waikato sub-regional view and solution supported by a robust and responsive governance structure; and
- major cost savings for water customers and councils due to savings in both operational expenditure and capital expenditure, and the optimisation of funding structures made possible by a specialist, asset-owning entity.

These findings were supported by a detailed engineering report that considered evidence from similar amalgamations overseas and in New Zealand. Some of the benefits of the CCO model identified in the engineering report include:

- the ability to effectively manage and deliver the sub-region's investment programme of work for the next 30 years;
- an increased level of resilience in security of supply;
- a better foundation to address the sub-region's future growth and economic development challenge; and
- greater opportunity to strategically manage assets where interdependencies exist.

Source: Cranleigh, Mott MacDonald & Martin Jenkins, 2015; Mott MacDonald, 2015.

At the time of writing, Hamilton City Council and Waikato District Council had agreed in principle to form the CCO, while Waipa District Council was still considering the proposal and was seeking separate advice on potential shareholding and governance arrangements.

F10.7 The process by which Hamilton City Council, Waikato District Council and Waipa District Council have proactively considered approaches to improve the efficiency of three waters infrastructure is a leading practice.

10.7 Improving the arrangements for Auckland's CCOs

This section focuses on the arrangements for Auckland's CCOs. Aside from Wellington Water, they are the only CCOs that provide core infrastructure, and Auckland is where the pressure for growth is most acute.

Scope for Auckland's CCOs to improve coordination and give greater priority to growth

Several submitters raised concerns about different priorities emerging between Auckland Council and its CCOs:

> It is not clear that CCOs have the same priorities of achieving higher density development in Auckland. This then leads to conflicts between their requirements and what the Council and industry are trying to achieve. (Property Council New Zealand, sub. 33, annex 10, p. 1)

> [T]here is a lack of alignment between the council's (planning) goals/plans and those of the related council agencies (parks and reserves, Auckland Transport, urban design, Watercare). This results in developers trying to mediate disputes over how the development should be designed between different parts of council… This makes for an inefficient process, adds to the development cost, and impacts the use of land for housing. (New Zealand Housing Foundation, sub. 69, p. 9)

Some inquiry participants suggested that Auckland's CCOs give insufficient priority to supporting growth:

> Water Care and Auckland Transport are independent entities who see more houses as a problem because it requires them to invest money they don't have! (Development Advisory Services, sub. 75, p. 4)

> [I]n Auckland developers experience problems getting Watercare and Auckland Transport to facilitate development. They don't seem to have linked objectives with the Council to enable greater development. (Property Council New Zealand, sub. 33, p. 17)

Instruments are available that Auckland Council could use to address coordination issues and to ensure that CCOs prioritise facilitating growth. The SOI is the main accountability document between a CCO and its parent council. Through the SOI a council can set performance objectives and monitor the CCO's performance. The Local Government Act 2002 (schedule 8 (1)) sets out the purpose of the SOI:

> (a) state publicly the activities and intentions of a council-controlled organisation for the year and the objectives to which those activities will contribute; and
>
> (b) provide an opportunity for shareholders to influence the direction of the organisation; and
>
> (c) provide a basis for the accountability of the directors to their shareholders for the performance of the organisation.

Any decisions relating to the operation of a CCO must be made in accordance with its SOI. A CCO's SOI covers a wide range of matters, including the CCO's objectives, its Board's approach to governance, accounting policies, and the performance targets and other measures by which the performance of the group may be judged (LGA 2002, schedule 8 (9)). The SOI is prepared by the CCO's directors, but must be agreed with the council (McKinlay, 2010). For Auckland's CCOs, the CCO Strategy Review Subcommittee is responsible for negotiating the contents of the SOI (Auckland Council, 2015c).

Auckland Transport and Watercare's most recent SOIs both set out the respective roles of the two organisations in delivering the Auckland Plan vision of Auckland being the world's most liveable city. The Auckland Plan sets out six "transformational shifts" that are needed to achieve this vision:

- Dramatically accelerate the prospects of Auckland's children and young people
- Strongly commit to environmental action and green growth

- Move to outstanding public transport within one network
- Radically improve the quality of urban living
- Substantially raise living standards for all Aucklanders and focus on those most in need
- Significantly lift Māori social and economic well-being. (Auckland Council, 2012b)

The Auckland Transport and Watercare SOIs each contain a section setting out how the organisations contribute to these transformational shifts. Auckland Transport's SOI notes that the organisation has a primary role to play in delivering on the goal to improve the quality of urban living by "Providing an effective, efficient and safe transport system that supports growth, including geographic spatial priorities and special housing areas" (Auckland Transport, 2015, p. 10). The SOI also notes that Auckland Transport will continue to focus on "participation in the targeted and integrated spatial approach to development as part of the Council's spatial priority areas (SPAs) and special housing areas" (Auckland Transport, 2015, p. 13).

Watercare's SOI notes planned expenditure on growth-related infrastructure and a commitment to service growth:

> Watercare's Asset Management Plan 2015-2025 provides $2.2 billion of expenditure on water and wastewater infrastructure to service growth in the Auckland region.
>
> Watercare will actively engage with Auckland Council and other infrastructure providers through the Housing Project Office, the Spatial Priority Areas Steering Group and the Auckland Plan Oversight Group to understand the regional growth priorities and to ensure that, where possible, water and wastewater infrastructure is available in a timely manner to service growth. (Watercare, 2015, p. 5)

These references to supporting growth are a welcome addition to the SOIs of the two organisations. However, given the critical role that water and transport infrastructure plays in facilitating urban growth, the commitment to support growth would be stronger if the SOIs referred to the specific objectives in the Auckland Plan to increase the city's supply of new dwellings.

Neither SOI includes specific reference to the role that CCOs might play in the 11th strategic direction in the Auckland Plan: "House all Aucklanders in secure, healthy homes they can afford" (Auckland Council, 2012b). Associated with this strategic direction is a target to increase the supply of new dwellings to at least 10 000 each year and a directive to encourage the construction of smaller and more affordable dwellings.

F10.8 While the primary accountability documents for Watercare and Auckland Transport (the Statements of Intents) are broadly aligned with the Auckland Plan vision, they do not give effect to the specific objective in the Auckland Plan to increase the city's supply of new dwellings.

Performance objectives for Auckland Transport and Watercare

The SOIs for Auckland Transport and Watercare both contain a set of performance indicators against which the organisations report progress on a quarterly basis. Table 10.3 sets out the main performance measures, each of which is accompanied by one or more specific targets.

Table 10.3 Statement of Intent performance measures: Auckland Transport and Watercare

Auckland Transport	Watercare
Prioritise rapid, high-frequency public transport	Provide uninterrupted access to safe, clean and drinkable water
Transform and elevate customer focus and experience	Provide reliable wastewater services and manage discharges to maintain or improve the health of the environment
Build network optimisation and resilience	Health, safety and wellbeing

Auckland Transport	Watercare
Ensure a sustainable funding model	Customer satisfaction (eg, percentage of customers surveyed satisfied with Watercare's delivery of water and wastewater services)
Develop creative, adaptive, innovative implementation	Financial measures (eg, percentage of household expenditure on water supply services relative to the average household income)

Source: Watercare, 2015; Auckland Transport, 2015.

Given the important role of water and transport infrastructure for new dwellings, it is problematic that supply of infrastructure to support growth is not reflected in either organisation's performance measures.

Chapter 11 proposes a wider review of the planning system, in which local authorities and central government would be expected to monitor dwelling completions and net changes in the dwelling stock relative to expected growth. Chapter 8 suggested that councils may need to work backwards through the supply chain to identify measures that need to be taken, including the provision of infrastructure, to ensure that a responsive supply of dwellings faces no unnecessary impediments.

Auckland Council should work with Watercare and Auckland Transport to amend their SOIs and performance indicators to address concerns about an insufficient focus on urban development. This should include establishing outcome measures that align with the targets for new dwellings in the Auckland Plan, and measures relating to the cost and timeliness of new connections to the network. This initiative was endorsed by the Orakei Local Board:

> The Orakei Local Board agrees that… Watercare and AT [Auckland Transport] SOIs should be amended to align with Auckland Plan housing supply objectives. (sub. DR135, attachment 2, p. 2)

Property Council New Zealand also supported moves to improve coordination between Auckland Council and CCOs, but noted that it is up to the council to ensure that CCOs drive through its policies:

> It is crucial that CCOs are co-ordinated to achieve the best possible outcomes. SOIs are one method, but these are easily manipulated so that low-risk and easily achievable outcomes are achieved. Councils like Auckland must use the CCOs to drive through their policies to support the needed necessary growth. (Property Council New Zealand, sub. DR100, p. 9)

While CCOs are responsible for developing the first draft of SOIs, as the sole shareholder Auckland Council should take responsibility to ensure that these documents are sufficiently aligned with its objectives for supply of dwellings to support growth.

R10.7 Auckland Council should ensure that its council controlled organisations are aligned with the Auckland Plan and its target for new dwellings. Auckland Transport and Watercare's SOIs should be amended to include performance measures relating to the efficient roll-out of new infrastructure to support an increased supply of new dwellings.

10.8 The regulation of Auckland's water CCO

Given the importance of providing potable and wastewater services to support urban growth, the Commission has looked at the current regulatory settings around Watercare. This section goes through some of the discussion about the creation of Watercare as a monopoly provider of water services, the current system of regulatory checks and controls, and how improvements could be made to Watercare's regulatory arrangements. This section concludes that these improvements should be applied to the provision of urban water services more generally.

Deliberations on the appropriate regulatory framework

The Royal Commission on Auckland Governance considered how water services and wastewater services would be best dealt with under an amalgamated council. The Royal Commission made several recommendations regarding the regulatory oversight of Watercare (Box 10.11).

Box 10.11 **The Royal Commission on Auckland Governance's views on regulation**

The Royal Commission recognised that Watercare would have increased monopoly power under the new recommended structure and that having no appropriate checks and balances could lead to, among other things, "unjustifiably high prices to the consumer". The Royal Commission found that some form of regulation was necessary. It recommended what it called a "relatively light-handed regulatory approach" initially, to be reviewed within five years of establishment, and the potential for stronger regulation if required over time. The Royal Commission said that more heavy-handed regulatory regimes (such as those used in the United Kingdom) are costly, and may be of questionable value in the absence of a privatised industry (as in the United Kingdom) or any real concern about the way an industry is operating.

Prior to the merger, Watercare was subject to certain "public good" governance principles. The Local Government Act 1974 stated that Watercare was to operate as a minimum price operator whose retained surpluses and returns on assets are minimal. The Royal Commission recommended that the new Watercare continue to be subject to these "public good" governance principles.

The Royal Commission also recommended that an Auckland Services Performance Auditor be appointed. The Auditor would have oversight of all Auckland Council activities, including Auckland's water services industry. It recommended that the Auditor would undertake, in relation to Watercare, efficiency and effectiveness reviews every three years. These reviews would incorporate international comparative industry benchmarking and an evaluation of service levels, efficiency, affordability of water, and demand management performance.

Source: Royal Commission on Auckland Governance, 2009.

The current regulatory settings for Watercare are set out below.

Current regulatory checks and controls

Watercare is subject to various regulatory checks and controls sourced in different pieces of legislation: the Local Government (Auckland Council) Act 2009, the Local Government Act 1974, and the Local Government Act 2002. Some of the controls are specific to Watercare and some are of general application to CCOs.

Governance principles

Watercare's obligations are set out in section 57 of the Local Government (Auckland Council) Act 2009. It provides, among other things, that an Auckland water organisation

- must manage its operations efficiently with a view to keeping the overall costs of water supply and wastewater services to its customers (collectively) at the minimum levels consistent with the effective conduct of its undertakings and the maintenance of the long-term integrity of its assets;
- must not pay any dividend or distribute any surplus in any way, directly or indirectly, to any owner or shareholder.

These governance principles provide that Watercare must operate as a minimum-price provider of water services and wastewater services, consistent with effective supply. The prohibition on paying a dividend reflects the expectation that efficiency surpluses will be applied to reducing customer prices. All revenue is invested either in infrastructure and equipment or in operating costs.

Review by the Auditor-General

Section 104 of the Local Government (Auckland Council) Act 2009 provides that the Auditor-General "must, from time to time, review the service performance of the Council and each of its council-controlled

organisations". Under this provision, Watercare was reviewed by the OAG in 2014. The review was largely positive, but found that Watercare "could improve some aspects of its performance – in particular, by providing its customers with better information about how it operates and what customers can expect" (OAG, 2014b, p. 5). However, the OAG review focused on Watercare's performance with respect to its existing customers, and did not consider new connections or use of the IGC. When the OAG next reviews Watercare, the review would benefit from having a broader scope that included issues relating to Watercare's performance with respect to future customers.

Performance monitoring by the local authority

Section 65 of the Local Government Act 2002 requires a local authority that is a shareholder in a CCO to regularly monitor the performance of that organisation to evaluate its achievement of the local authority's objectives for the organisation; desired results, as set out in the CCO's SOI; and the overall aims and outcomes of the local authority. Auckland Council has established an Accountability and Performance Committee that is responsible for monitoring the performance of CCOs.

Reporting requirements

CCOs must produce a SOI that complies with the requirements set out in Schedule 8 of the Local Government Act 2002 (see s 64 of the Act). CCOs must also provide half-yearly and yearly reports on its operations (ss 66 and 67). The annual report must include an auditor's report on the CCO's financial statements and a judgement of the CCO's performance in relation to its objectives (s 69).

Is price regulation needed?

Concerns about the misuse of market power by businesses characterised as natural monopolies has led to high levels of government direction and regulation of prices in many countries, including New Zealand. It is appropriate to reconsider the appropriate form of the oversight of pricing. The Australian Productivity Commission (APC) (2011b) set out the rationales for price regulation.

The primary rationales advanced for price regulation of the urban water sector can be summarised as

- preventing the exercise of market power by monopoly utilities:
  - setting prices above the cost of supply to increase profits (Viscusi et al 2005)
  - X-inefficiency, whereby a lack of competitive forces reduces the incentive for utilities to minimise the cost of supply and offer innovative services (Viscusi et al 2005)
- avoiding politicisation of utility pricing
- ensuring full cost recovery. (APC, 2011b)

The NSW Government's submission to the APC inquiry into Australia's urban water sector (2011b) notes:

> The economic case for regulating natural monopolies to ensure they do not exert market power is long-established, and price regulation of monopoly service providers is an established way of seeking to ensure that monopolies do not abuse their market power in terms of pricing or service quality. Water utilities' prices are regulated because parts of their supply chain, such as transmission and distribution, are natural monopolies. (p. 297)

However, the APC points out that the size of the potential monopoly pricing problem, and therefore of the prospective benefits from regulatory intervention, depend on the extent to which monopoly power is exercised in practice (APC, 2011b). This is an important consideration because the mechanisms for regulating prices are not costless.[49] The APC's report on Australia's urban water sector (2011b) has suggested that regulators in Australia should move away from price regulation towards price monitoring, and rely more on public owners, operating as active shareholders, to manage the issues associated with natural monopoly provision. The APC considered that the largest gains were likely to come initially from establishing clear objectives, improving the performance of institutions with respect to roles and

[49] In Australia, all states have independent economic regulators of the water sector. In New Zealand, price regulation would require expertise and resources currently only residing in the Commerce Commission.

responsibilities, governance, regulation, competitive procurement of supply, and pricing, rather than trying to create a competitive market as, for example, in the electricity sector.

The APC recommended (2011b) that governments should:

- clarify that the overarching objective for policy in the sector is the efficient provision of water, wastewater and stormwater services so as to maximise net benefits to the community;
- ensure that procurement, pricing and regulatory frameworks are aligned with the overarching objective and assigned to the appropriate organisation;
- put in place best practice arrangements for policy making, regulatory agencies, and water utilities; and
- put in place performance monitoring of utilities, and monitor progress on reform.

New Zealand is not starting from a position like Australia where all states have economic regulators of the water sector, where water utilities are licensed and independent dispute resolution processes are in place. In contrast, New Zealand's water services are generally unregulated. Irrespective of the starting point, the Commission considers that the APC's recommendations provide a good basis for improving the provision of urban water services in Auckland, and in high-growth urban areas in New Zealand more generally. In the context of this inquiry, the Commission considers that a focus on clarity of objectives in water services provision, discipline around pricing of water services, best fit provision and oversight of water services, and performance monitoring would improve the ability of the water sector to support urban growth.

Improving the regulatory and institutional framework

Clarity

This chapter has recommended greater alignment of Watercare's objectives with the Auckland Plan (R10.7); and has also recommended that when reviewing their arrangements for infrastructure under part 17 of the Local Government Act 2002, councils should ensure clarity of their objectives by examining the effectiveness of their arrangements in meeting the needs of current and future communities (R10.4).

However, the arrangements for water infrastructure have broader issues of clarity. The 2011 National Infrastructure Plan noted:

> Of all the sectors analysed in this Plan, the management, regulatory settings and governance relating to water infrastructure will require the most attention in the next three years. (2011, p. 39)

Water New Zealand (2011) considers that the regulatory system has many flaws, including:

- 17 Acts relate to water management, and "many other out-dated Acts and Regulations… impinge on water policy and management"; and
- a complex legal framework imposes obligations on councils (that differ between water and sewerage), complicates alternative service provision options, and is poorly understood.

The Local Government Infrastructure Advisory Group (2013) considers that the complexity and diversity of responsibilities for the framework makes oversight and planning of infrastructure difficult, noting that "the complexity surrounding drinking water [is] so great that it would be a challenge for most people to fully understand unless they are an expert" (2013, p. 65). The group suggests that a clear need exists to achieve a greater degree of integration and clarity within the statutory and legal frameworks for water supply, wastewater and stormwater.

F10.9 The statutory and legal frameworks for water supply, wastewater and stormwater in New Zealand are unclear.

Pricing

The importance of efficiently pricing water services to manage demand is made in Chapter 9. That chapter makes the case for transparent recovery of infrastructure costs through development contributions. This chapter has reinforced the importance of efficiently pricing water connections to ensure that capital and operating costs are recovered so that growth is enabled rather than 'rationed'. This chapter has made specific recommendations with respect to Watercare's pricing of its IGC (R10.1 and R10.2).

Best fit provision

The Commission has recognised that the arrangements for the provision of water services to communities needs to be fit for purpose and recommends careful consideration of costs and benefits in proposals for mergers. The Commission has recommended that when reviewing their arrangements for good quality infrastructure under section 17 of the Local Government Act 2002, councils should consider whether the CCO model offers the potential to capture scale economies in provision (R10.6). Further, the Commission has recommended that the Local Government Act 2002 be amended to provide councils with a greater range of options for providing and managing water services (R10.5). Removal of the current legislative barriers would allow for greater contestability in the management of water services.

Performance monitoring

Consistent and transparent information about the performance of water providers to enable benchmarking would also be a welcome addition to the regulatory framework for water services.

Benchmarking:

- verifies high performance and identifies agencies and service areas that are successful;
- enables agencies to learn from peers that are delivering higher-quality services and/or more cost-effective services; and
- generates additional incentives for agencies and services to improve performance (NZPC, 2013; Steering Committee for the Review of Government Service Provision, 2010).

New Zealand is not alone in having unregulated publicly provided water services. But other countries where water services and infrastructure are delivered by public providers without economic regulation (such as Mexico, the Netherlands and Sweden) have strong self-regulatory institutions and sophisticated benchmarking of performance (Marques, 2010) (Box 10.12).[50]

Box 10.12 **International examples of self-regulation of water services**

The Netherlands

Water services and wastewater services in the Netherlands are carried out in the public sector – participation of the private sector is prohibited by law. There is no explicit regulation, however VEWIN (the Association of Dutch Water Companies) acts as a quasi-regulator encouraging performance improvement and undertaking benchmarking. VEWIN also surveys customers directly, to evaluate consumer expectations and satisfaction.

Mexico

In Mexico, the National Association of Water and Wastewater Companies (ANEAS) uses benchmarking to encourage better financial and service performance:

> The ANEAS, acting in a proactive way and using benchmarking as its main tool, has filled the absence of a sector-specific regulator. (Marques, 2010, p. 268)

[50] In some cases, benchmarking exercises operate in conjunction with economic regulation. For example, water services and wastewater services in Canada are generally provided by vertically integrated public operators that are subject to rate-of-return regulation. Canada's National Water and Wastewater Benchmarking Initiative was established in 1997 by AECOM (a private infrastructure company) in partnership with several water utilities. The initiative currently publishes benchmarking data for 53 wastewater utilities, 50 water utilities and 28 stormwater management programmes. The data provided by the utilities are confidential; therefore individual data pertaining to specific providers cannot be identified in public reports (NWWBI, 2013).

Sweden

Water services and wastewater services in Sweden are typically managed directly by local municipalities, with some limited participation by private companies. The Swedish Water and Wastewater Association was established by the municipalities in 1962 and plays an important role in promoting a benchmarking system. The benchmarking system focuses primarily on reducing costs and improving efficiency (Marques, 2010).

F10.10 A feature of water services provision in many other countries is the presence of strong self-regulatory institutions, particularly performance benchmarking.

Berg and Marques (2010, p. 18) have reviewed the literature on benchmarking in water services and conclude that the practice has a positive impact:

> …18 studies focus on the benefits of using benchmarking to enhance value for money in the provision of water utility services … As would be expected, all the studies identified a positive impact from using benchmarking practices—whether or not an autonomous regulator was overseeing the sector.

As set out in Box 10.13, benchmarking conducted in the Netherlands has achieved some particularly impressive results.

Box 10.13 **Benchmarking water services in the Netherlands**

Benchmarking has been conducted among water services providers in The Netherlands since 1989. Initially, benchmarking was conducted among a subset of Dutch water providers, and the results were kept confidential. Since 1997, benchmarking has been conducted at three-yearly intervals by the Association of Dutch Water Companies (VEWIN). Under VEWIN's management the approach to benchmarking changed with nearly all water providers participating in the exercise, and the results being published (attracting widespread attention). In 2010, participation in the benchmarking exercise was made mandatory under the *Drinking Water Act*.

Benchmarks are based around four themes: Water Quality, Service, Environment, and Finance and Efficiency. A range of performance measures have been developed relating to each theme, including an index that expresses the general compliance of drinking water quality with legislated standards; a customer satisfaction survey; the unit prices charged to various customers; and the composition of costs distinguishing between taxes, costs of capital, depreciation and operational costs (Blokland, Schouten & Schwartz, 2009).

The post-1997 benchmarking approach was initially introduced to forestall a government proposal to establish a regulatory regime for water along similar lines to the UK model. Marques (2010, p. 149) notes that benchmarking has prevented the need for stronger forms of regulation:

> With its important and proactive role, and using benchmarking as its main tool, the VEWIN has postponed not just explicit economic regulation in this sector, but also privatization, since it has managed to maintain the Dutch water companies at the forefront of excellence at a global level, which limits the potential efficiency gains offered by privatization and regulation.

Braadbaart (2007) has assessed the impact of the Dutch benchmarking, comparing the pre- and post-1997 approaches, and reached the following conclusions.

- Benchmarking, particularly when the results were publicly available, enhanced transparency by enabling boards of governors to better judge the performance of utility managers and enabling customers to judge the effectiveness of their water services providers.

- Benchmarking substantially improved the performance of water service providers, but only after the benchmarking results entered the public domain. Braadbaart (2007) notes two potential explanations for the delay in benchmarking becoming visible in utility performance. First, it could be a result of utility managers taking several years to become accustomed to benchmarking and to learn how to translate the lessons from benchmarking into operational reforms. A second, but not necessarily incompatible, explanation is that utility managers became serious about internal reform only when benchmarking information was publicised.

Numerous other studies have also commented favourably on the Dutch benchmarking system. Marques and De Witt (2010, pp. 45–46) note the "results of this benchmarking were remarkable as the efficiency of the sector increased by 21% between 1997 and 2005". Blokland, Schouten and Schwartz (2009) also found that the benchmarking scheme has generated good results, although they argue that some of the benefits are subject to "erosion" over time, and recommend some methodological innovations to give a new boost to the effectiveness of the scheme. In a comparative study of incentive schemes used in the water sector, De Witt and Marques (2007) found that the Dutch water sector performs better in terms of efficiency and effectiveness than the water sectors in Australia, Belgium, Portugal, and England and Wales.

F10.11 The industry-led approach to benchmarking the performance of water providers in the Netherlands is a leading practice.

Benchmarking in New Zealand

There is already some benchmarking undertaken in New Zealand. For example, Watercare has been undertaking its own benchmarking, including comparisons with Australian water providers and with other New Zealand utilities (PwC, 2012). In addition, the 2010 amendments to the Local Government Act 2002, require the Secretary for Local Government to make rules specifying performance measures in relation to water supply, sewerage, stormwater, flood protection, and the provision of roads and footpaths:

> The purpose of rules made under section 261B is to provide standard performance measures that are applicable to local authorities so that the public may compare the level of service provided in relation to a group of activities by different local authorities. (LGA, 2002, s 261a)

Local authorities are required to incorporate performance measures outlined in these rules in the development of their 2015–2025 Long-Term Plans. Performance measures will be reported for the first time in the 2015/2016 annual reports.

The most substantive benchmarking initiative is the *National Performance Review* (NPR), which has been conducted by Water New Zealand since 2008 (Water New Zealand is the principal industry organisation for water services in New Zealand). The NPR is a voluntary benchmarking exercise that collates performance metrics on assets, financial management, customer service levels and a range of social and environmental criteria (Water New Zealand 2015). Positive features of the NPR benchmarking exercise include:

- International comparisons – the most recent edition of the NPR includes benchmarks drawn from five international studies. International benchmarks are particularly relevant for New Zealand's largest water provider (Watercare) for whom there are no providers of similar scale in New Zealand.
- Alignment with other performance reporting initiatives – the NPR draws together performance data from other sources including performance reporting requirements under the LGA 2002 (discussed above).
- Verification – auditors have been employed to review data quality and to identify inconsistencies in reporting. For the most recent edition of the NPR, auditors conducted a desk top review of all data supplied to check issues such as interpretation and compliance with indicator definitions, and also conducted more detailed site audits with 20% of participants.

While the NPR is a welcome addition to the institutional framework for water services, it does not yet appear to have the effectiveness of more established benchmarking systems like that of the Netherlands. The NPR initiative could be strengthened by addressing the following issues:

- Patchy participation rates – 31 of New Zealand's 66 three waters service providers participated in the most recent NPR. However those providers that did participate provide services to over 70% of the population, and participation rates have been increasing steadily since the initiative's inception.
- Incomplete or poor quality data – the NPR notes that "accuracy is limited by a participant's data availability and their ability to consistently interpret indicators" (Water New Zealand, 2015, p. 16). The NPR includes a confidence rating for the benchmarking indicators, and for some indicators this rating suggests a need for more robust data. For example, the confidence rating for water loss indicators shows that fewer than half of participants rated their data as "reliable" or "highly reliable".
- Little time series information – greater use of time series data for key performance indicators would help to identify trends in performance over time.
- Additional performance indicators relating to new connections – the current indicators in the NPR focus on management and performance of existing water assets. The development of new indicators that measure the efficiency of new connections to the network would be a useful addition, given its importance for the supply of land for housing.

In the absence of explicit economic regulation of water provision, New Zealand needs to ensure that self-regulatory approaches such as benchmarking are robust. Water New Zealand's NPR is good practice, however with greater industry buy-in and further development of some indicators its effectiveness could be strengthened. LGNZ, as the advocacy body for local government in New Zealand, is well-positioned to work with councils to encourage more substantive participation in the NPR.

F10.12 Water New Zealand's *National Performance Review* is a good practice. However its effectiveness could be strengthened with greater industry buy-in and further development of some indicators.

R10.8 LGNZ should support Water New Zealand's benchmarking initiative by encouraging all councils to participate and by working with councils to assist them in improving their data quality.

10.9 Conclusion

The supply of both transport and water infrastructure are critical components in an effective supply of land for housing. The governance arrangements for these assets are quite different – for transport infrastructure, central government plays a central role both in a planning and funding capacity, while the arrangements for water infrastructure are much more devolved.

The main concern relating to governance of transport infrastructure stems from the incentives facing the NZTA and local councils. The NZTA responds to the objectives set for them by central government. Because these objectives do not include specific reference to land supply for housing, tensions can emerge between the NZTA and council priorities. Directing the NZTA to include in its objectives consideration of how transport infrastructure can support the growth of cities is one option available that would help high-growth areas increase the supply of land for housing.

Water infrastructure in New Zealand, as in many other countries, is provided by local public monopolies. As such, they are subject to a number of issues and incentives that can hinder their ability to respond to demands for water services to support urban growth. Reform of water services in other countries has centred on exploiting economies of scale and introducing commercial disciplines. This is often done in combination

with reform of regulatory and institutional frameworks to balance a commercial focus with public and environmental objectives. Some countries regulate access and the price of services; other countries have adopted water sector self-regulation and robust benchmarking of performance.

Substantial weaknesses have been identified in the water sector's regulatory and institutional framework in New Zealand. Addressing these weaknesses would improve the performance of the sector in general, and in a way that could contribute to urban growth through improving the way water infrastructure is delivered.

CCOs are responsible for water and transport infrastructure in Auckland, and to manage water infrastructure in parts of the greater Wellington area. The accountability arrangements for Auckland's CCOs are not currently aligned with Auckland Council's objectives to increase the city's supply of dwellings. This should be addressed by adding performance measures to a CCO's SOI relating to the efficient roll-out of new infrastructure to support an increased supply of new dwellings.

In summary, governance arrangements should ensure that infrastructure is coordinated with the release of land for housing and that infrastructure is efficiently priced so that it is not rationed. While competitive tension would most likely ensure better delivery of infrastructure, in its absence there is a need to align the strategic goals of infrastructure providers with council objectives for growth, and actively benchmark performance.

11 Reform of the planning framework

Key points

- The current planning framework suffers from:
  - poor integration between the planning processes of the three main Acts;
  - inadequate attention to the national interest;
  - insufficient recognition of the needs of cities and housing;
  - a lack of responsiveness; and
  - scope creep.
- Recent announcements that the Government will introduce a National Policy Statement on urban development and make amendments to the Resource Management Act 1991 (RMA) to streamline some planning processes are welcome. However, a deeper and more substantive review of the planning framework is needed to deal with issues of poor integration, low responsiveness and scope creep.
- The Commission identified some features that would be desirable in a future planning framework. These include:
  - a formal place in the planning framework for spatial plans. These plans should be tightly-specified, evidence-based, include clear growth and housing demand paths and have greater legislative weight;
  - a greater role for central government in city planning, including longer-term infrastructure planning to complement local authority plans, supporting the development of common datasets, working with cities to ensure their plans can accommodate demand, and closer monitoring of performance;
  - a recognised role for price signals in making planning decisions over factors such as overall land supplies, the allocation of different types of land uses within a city, and the need for reviews of planning controls;
  - stronger controls on the quality of land use regulations, informed by an evaluation of the processes used by the Auckland and Christchurch Independent Hearings Panels;
  - room for more responsive rezoning so that planning controls can adjust quickly in response to specified triggers (eg, the installation of key infrastructure, population densities passing a certain threshold, evidence of scarcity-based price pressures); and
  - greater ability to develop neighbourhood plans, through which local authorities can provide targeted infrastructure or other services for neighbourhoods facing significant change.
- Taken together, these changes will help to provide greater certainty for developers, more security for local authorities, fewer unnecessary burdens on development, a system that responds more quickly to change, and better recognition of national interests.

11.1 Introduction

A key task for this inquiry has been identifying leading practices and improvements that could be made to the planning system. Many of the findings and recommendations in the previous chapters were made in the

context of the existing planning and development system. However, the more the Commission looked at the incentives underlying the system, it became clear that more substantial changes will be required to enable cities to become facilitative of growth. This chapter, and the following chapter, describe the changes that are needed.

Issues with the current legislative planning framework were a recurring theme throughout the course of this inquiry. This chapter discusses problems identified with the current framework, outlines changes that are currently planned to the Resource Management Act 1991 (RMA), makes the case for a more substantive review, and points to features that would be desirable in a future planning framework.

11.2 Integrated planning and its challenges

Effective urban planning and development systems link decisions about land use (eg, zoning) with the provision of infrastructure (eg, water, roading) and other services, such as public transport. This helps ensure that:

- land zoned for housing can be developed in a prompt fashion;
- developers have some certainty about the future provision of infrastructure;
- local authorities can manage the cost of new infrastructure and services; and
- new residents are able to connect to the wider community.

Integrated planning and decision-making is the goal of many urban planning and development systems (eg, see COAG, 2009; LGPMC, 2003 and 2009). In practice, however, it can be challenging to bring together decisions and plans for land, infrastructure and other related services. In New Zealand, a key challenge is integrating obligations and processes from three different pieces of legislation, each of which has different purposes and timeframes.

Some of the issues with the legislative framework have already been discussed in other chapters, including the political nature of the planning system (Chapter 3), the inflexible consultation requirements for plan changes (Chapter 6), limits on the ability of local authorities to price and charge for some infrastructure services (Chapter 8 & 9) and issues with the governance arrangements for water and transport infrastructure (Chapter 10).

In addition to these, the Commission identified five systemic weaknesses in the planning framework:

- poor integration between the planning processes of the three main Acts;
- inadequate attention to the national interest;
- insufficient recognition of the needs of cities and housing;
- lack of responsiveness; and
- scope creep.

Poor integration

The various requirements of the three planning Acts (the RMA, the Local Government Act 2002 and the Land Transport Management Act 2003) create a complex web of plans, with interactions at a number of points (Figure 11.1). This complexity can make it difficult to effectively and efficiently coordinate decisions around land use, transport services and infrastructure provision.

For example, to make a particular area of land ready for development – setting planning controls, installing trunk infrastructure, providing sufficient capacity on the roading network – local authorities must take decisions through at least three distinct processes, each with different timeframes and implementation speeds. One process can lag behind another (Local Government New Zealand, sub. DR130, p. 3), and the requirement for decisions taken in one process to support each other is weak. This can lead to uncertainty

about the likelihood and timing of new development capacity being made available. Taking decisions to enable an area of land to be developed may also require duplicative consultation processes.

A Ministry for the Environment (MfE) discussion paper commented that the

> [t]hree planning Acts were never designed to work together as a complete urban planning system. Each Act, its plans and decision-making are all subject to different legal purposes, processes and criteria, and operate over different time frames. This results in duplication and lack of clarity, and demands considerable time and resourcing from all parties involved…The complex urban planning system also creates a lack of alignment between spending, policy, regulation and development. This means the current planning system is not able to effectively engage or provide signals or sufficient certainty to infrastructure providers and the private sector. (2010a, pp. 9–10, 11)

A number of submitters from local government echoed these arguments, with some pointing in particular to the focus of the RMA on managing effects, rather than supporting strategic decisions, as a key factor complicating the planning process.

Box 11.1 **Submitter comments on poor integration within the planning system**

> The Resource Management Act 1991 (RMA), the Land Transport Management Act 2003 (LTMA) and the Local Government Act 2002 (LGA) are the key pieces of legislation that have implications for land availability through planning. Trying to co-ordinate these three pieces of legislation in facilitating development often makes the process slow and inefficient. (Waikato District Council, sub. 12, p. 1)
>
> Trying to coordinate the three statues adds to the complexity of integrating good strategic thinking. (Local Government New Zealand, sub. 54, p. 6)
>
> While the Resource Management Act, Land Transport Management Act and Local Government Act have different purposes, GWRC considers that there would be benefits to them being better integrated. Within GWRC, we are able to align our plans and actions under each of the Acts, however, at a regional level, there is little overall coordination and consistency between councils in implementing the statutes. (Greater Wellington Regional Council, sub. 38, p. 2)
>
> Integration between the three pieces of legislation is not as good as it could be. (Bay of Plenty Regional Council, sub. 46, p. 4)
>
> The environmental effects based approach of the RMA is an 'externalities' based approach to resource management. RMA decision-making is often made on a case-by-case basis at the expense of taking a long term strategic or cumulative impact view of development. This fragmented approach to development acts against well planned, efficient and integrated approaches to the provision of land-use and infrastructure. (Wellington City Council, sub. 21, p. 13)
>
> There are considerable challenges around the timing of separate but linked processes under the LTMA and LGA. For example, the current RLTP [Regional Land Transport Plan] must be finalised by April 2015 to enable the NZ Transport Agency to publish the National Land Transport Programme in June 2015. Local authority transport programmes form a key part of the RLTP. However, these programmes are developed through local authority Long Term Plan processes that are operating according to different timeframes (finalised by June 2015). This means the RLTP needs to be consulted on and finalised before the process of developing and consulting on local authority transport programmes has been completed. (Bay of Plenty Regional Council, sub. 46, pp. 4 and 10)
>
> Recent changes to the Land Transport Management Act have reduced national forward planning for transport from 30 to 6 years which is unhelpful, especially for fast growing areas that need to undertake long-term planning for growth management. This is at odds with the increase in infrastructure planning periods for councils, for example 30 year infrastructure strategies. (Tauranga City Council, sub. DR102, p. 27)

Some district councils appeared to face fewer difficulties in integrating the three Acts (Tasman District Council, sub. 25, p. 4; Western Bay of Plenty District Council, sub. 36, p. 3). Yet this relative ease may reflect the fact that these councils are not facing the largest growth pressures.

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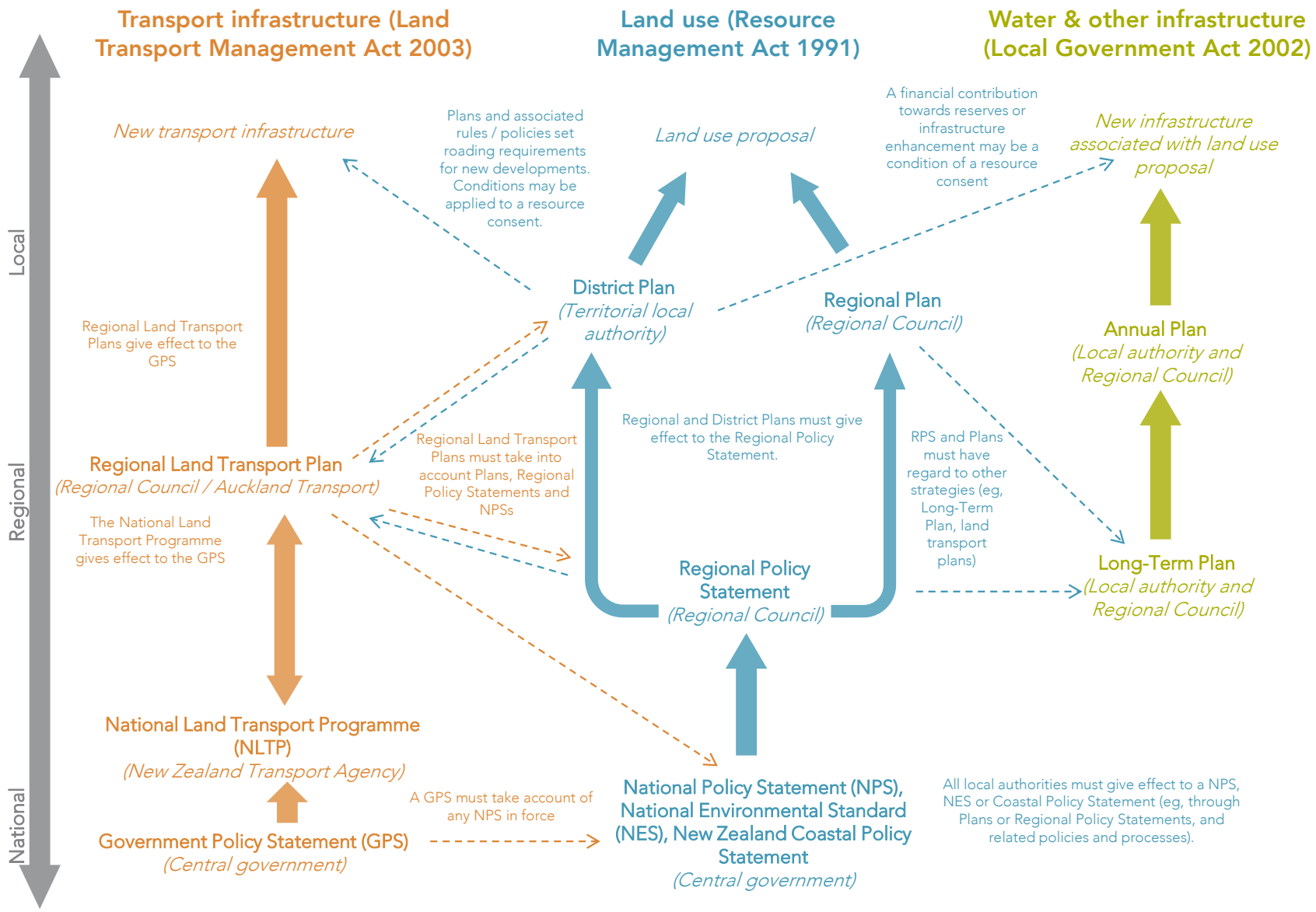
Figure 11.1 Stylised presentation of the planning and development system



Inadequate attention to the national interest

As explained in Chapter 3, New Zealand has a very devolved planning system with central government playing a relatively small part (outside of transport planning and funding), especially in comparison with other jurisdictions. Although central government holds a number of powers to intervene or participate in planning, it has not used them to their full extent. Indeed, Bay of Plenty Regional Council commented that in their experience, "the Crown has taken almost no interest in local plans" (sub. DR89, p. 4).

The absence of central government in the planning system has a number of consequences:

- a failure by local authorities to consider the implications of their land use decisions on the nation, which manifests itself in the social and economic outcomes described in Chapter 3;
- attempts by individual local authorities to address issues through the planning system that would more efficiently be dealt with at a national level (eg, greenhouse gas emissions);
- inconsistent standards and planning definitions between local authorities, which raise costs for developers and other firms that operate across council borders (Chapters 6 and 8); and
- lack of a countervailing force against the influence of incumbent homeowners and ratepayers, who have incentives to oppose developments that could affect the amenity and value of their homes, or that involve new spending that might result in higher rates (Chapter 3).

Insufficient recognition of housing and cities

A strong message that emerged from inquiry participants is that the RMA does not give adequate recognition to the needs of cities and housing. Under the RMA, local authorities are required to balance a number of objectives, of which housing need is only one (and an implicit, rather than explicit, objective). One consequence of this is complicated District Plans (discussed in Chapter 5), with multiple objectives that run counter to each other and increase the costs of housing.

Another consequence is the sense in a number of RMA regulatory plans and related documents that some councils see the obligation to protect the natural environment as placing constraints on the ability or desirability of supplying more land for housing. For example, the Hearings Panel that considered the Queenstown Lakes District Council (QLDC)'s proposal to include an affordable and community housing policy in its District Plan concluded that in "an approach of zoning considerably more land for housing would quite likely be contrary to Part 2 of the RMA" (QLDC, 2008, p. 31). The Hearings Panel reached this conclusion because

> [o]utstanding natural landscapes and features are notably present throughout the District. There is therefore a great emphasis on managing growth in an appropriate manner as demonstrated in the Plan and through Council policies. Such considerations would seem to run against the suggestions made by some submitters that the Council should concentrate on zoning large amounts of land for residential development. The matter of managing growth can also be considered in the context of Section 7(c). Sprawling, unconsolidated urban areas would seem inconsistent with 'the maintenance and enhancement of amenity values'. (QLDC, 2008, p. 19)

Some have argued that the problems lie in implementation, rather than the legislation. Munro and Beattie (2014) suggested that some local authorities have interpreted the law too narrowly:

> Section 5 [of the] RMA is of course the apex and most important section of Part 2. It emphasises the need to enable social, economic and cultural wellbeing, as well as health and safety. In making this message, the Act discusses the natural and physical environment, not the natural and the biophysical environment as seems to be read by many. One can further look to the definition of 'environment' in s.3, RMA. It emphasises people and communities, and physical resources (which includes structures like buildings, bridges and roads). This inescapably includes the urban environment…
>
> If there is a practice problem, it may be that some district plans stray into the dogma that avoiding, remedying or mitigating an adverse environmental effect is alone sufficient to promote sustainable management, or is inherently more important than enabling social, economic or cultural wellbeing (positive effects in simple terms). Such is not in our view a correct interpretation of the RMA. (p. 17)

Similarly, a few submitters said that the RMA can be made to work for housing and urban needs (Glenn Broadbent, sub. 58, p. 2; Tasman District Council, sub. 25, p. 4).

However, the numerous and trenchant criticisms of the RMA made by submitters and other commentators suggest that more fundamental legislative changes are required to ensure housing and cities have sufficiently clear priority against other objectives. (Box 11.2) The case for change is strengthened by the fact that attempts to work around gaps in the RMA by planning for land provision through other processes have faced challenges, particularly in the courts. Wellington City Council reported that it had attempted to address gaps in the RMA through

> strategic land use planning undertaken outside of the RMA (eg the Northern Growth Management Framework, and the Urban Development and Transport Strategies) and more recently through the release of the (draft) Wellington Urban Growth Strategy. These important strategies do not have any regulatory effect and often are ignored or downplayed by the Environment Court as significant policy documents. (Wellington City Council, sub. 21, p. 22)

Box 11.2 **Recognition of the needs of housing and cities in the RMA: submitter views**

> … the urban environment is not adequately recognised in the RMA and the planning system is complex. (Future Proof, sub. 39, p. 6)
>
> After more than 20 years of the RMA there is no specific recognition given to the importance of the urban environment and the need to have a planned approach to urban development, infrastructure and high quality urban design. (Wellington City Council, sub. 21, p. 13)
>
> [T]he Resource Management Act 1991 ("RMA 1991") is not well designed for cities ... [and does not give] sufficient attention to development feasibility, infrastructure affordability or funding when making land use decisions. (SmartGrowth, sub. 27, p. 6)
>
> Proper recognition of the built environment should be reflected in the RMA, to assist in ensuring more balanced council policies, practices and requirements. In addition, the RMA needs refinement to i) properly plan for and facilitate growth in urban areas ii) control the extent of planning prescription in urban areas to facilitate development and growth efficiently iii) require more cohesive holistic interpretations. (Property Council New Zealand, sub. 33, p. 4)
>
> If the government is serious about increasing land supply it needs to rethink the current process and make significant changes to … the weighting given to urban growth outcomes relative to other outcomes such as environmental and heritage outcomes in Part 2 of the RMA. Perhaps there is a place for specific legislation governing urban planning in the 5-6 growth areas in the country which would not be dissimilar to the approach taken with the Housing Accords legislation. (Tauranga City Council, sub. 47, p. 8)
>
> …the balance of the RMA is primarily concerned with the adverse impacts of development. Apart from the amendments currently being hotly contested, almost no recognition is given to the positive outcomes derived from good urban planning and timely development or investment in infrastructure. Objectives designed to balance social, economic, environmental and cultural consequences of infrastructure and land use development create significant conflicts for those developing plans. (New Zealand Council for Infrastructure Development, sub. 57, p. 8)
>
> …the RMA was designed more for natural resource management rather than urban planning where highly modified landscapes predominate. There should have been and still should be distinguishing and probably somewhat different sets of principles for urban planning and design. (Gow, 2014, p. 8)
>
> The promise of a brave new world for planning and environmental management [introduced by the RMA] was confounded at the outset by a myriad of factors…A major issue was the absence of any attention to the urban environment. This posed significant challenges for urban planning and management through the 1990s and did not assist the integration of land use and transport. (Ward et al., 2007, pp. 21–22)

A lack of responsiveness

As outlined in Chapter 3, the planning system is poorly configured to respond to large changes in the demand for land. Planning controls and the provision of infrastructure are set down based on projections of future population growth, assumptions about the growth and size of households, and the ability of the local authority to afford extensions to its networks. There is little use of price information, although some councils monitor other market developments (eg, dwelling production) to assess the suitability of their plans. And where local authorities do wish to change planning controls or the pace of infrastructure provision, prescriptive consultation processes, inefficient infrastructure user charges or development contributions and ratepayer resistance can limit the ability of councils to change direction or speed promptly.

Another possible contributor to low responsiveness is an in-built bias against change in planning legislation. The New Zealand Council for Infrastructure Development, for example, has said that

> …the balance of the RMA is primarily concerned with the adverse impacts of development. Apart from the amendments currently being hotly contested, almost no recognition is given to the positive outcomes derived from good urban planning and development or investment in infrastructure…The LGA and LTMA, conversely, remain oriented towards future action. (NZCID, 2015a, p. 34)

Scope creep

Two fundamental roles for planning systems are to manage externalities and coordinate the provision of infrastructure and services needed to support urban areas. Managing externalities was clearly an objective of the RMA's founders. In his Third Reading speech on the Resource Management Bill in 1991, the then Minister for the Environment, the Hon Simon Upton said that the goal of the new legislation was to concentrate on spillovers and limit unnecessary constraints on land use:

> ...the Government has moved to underscore the shift in focus from planning for activities to regulating their effects...We run a much more liberal market economy these days. Economic and social outcomes are in the hands of citizens to a much greater extent than they previously have been. The Government's focus is now on externalities – the effects of those activities on the receiving environments...
>
> The presumption about rights to use land should further underscore that point. Current law presumes that one can use land only in accordance with the provisions of the law. Clause 7 intentionally reverses that presumption. That was a very important reversal that the authors of the Bill made right at the outset – that is, people can use their land for any purpose they like. The law should restrain the intentions of private land-users only for clear reasons and through the use of tightly targeted controls that have minimum side effects. (New Zealand Parliament, 1991, pp. 3019–20)

However, the practice of planning has diverged markedly from the fundamental role that was envisaged for it. As discussed in Chapter 5, District Plans contain land use rules and regulations on a wide range of issues. Some of these rules and regulations do not provide a net benefit and increase the cost of housing unnecessarily, and some serve to protect the wealth of incumbents at the cost of non-homeowners. Others apply controls that appear to have little to do with managing negative impacts on others, such as 'design guidelines' which seek to regulate the placement or design of buildings so as to:

- maintain "the rhythm of buildings along the street edge in areas of consistent character" (Wellington City Council, 2015, Volume 2, Residential Design Guide, p. 7); or
- ensure that "development on corner sites enhances the structure and legibility of the City and incorporates distinctive design treatments" (Christchurch City Council, 2015, Vol. 2, Section 11, Policy 11.5.2 (b)).

Other significant planning documents, such as the Auckland Plan, have a range of objectives that sit well outside the traditional frame of managing land-use externalities and coordinating infrastructure and arguably outside the control of local government, such as raising vaccination rates, reducing life expectancy disparities, lifting participation in "culturally appropriate early childhood learning services" and increasing foreign language fluency (Auckland Council, 2012a).

This expansion in rules and objectives reflects the expansion in the perceived role, scope and impact of planning discussed in Chapter 2, and the inability of the system to assess the full costs and benefits of its

actions (Chapter 5). However, this expansion has clear and potentially large efficiency costs. A need exists to more closely align the planning system with its fundamental roles, and to reconsider where the boundary between public and private decision rights should lie.

F11.1

There are systemic weaknesses in the planning framework, including:

- poor integration between the planning processes of the three main Acts;
- inadequate attention to the national and public interest;
- insufficient recognition of the needs of cities and housing;
- lack of responsiveness, and
- scope creep.

11.3 A wider review is needed

The Commission's Terms of Reference for this inquiry put a 'fundamental review of the Resource Management Act' out of scope. It was with this limitation in mind that the Commission proposed in the draft report an alternative legislative pathway for cities to use high-quality spatial planning as a voluntary alternative to existing processes, which would sit alongside the RMA. It was also a way of acknowledging the concerns expressed by many urban local authorities about the adequacy of the planning system, while also recognising that some smaller and regional territorial authorities thought that the current framework could be made to work.

Further analysis and recent developments have led the Commission to reconsider this recommendation. Two key developments are recent announcements from the Government of a package of reforms of the planning system to be made over the coming year, and a wider-ranging review of planning legislation and alignment "to ensure fitness for purpose"(National Infrastructure Unit, 2015b, p. 80).

According to the Minister for the Environment, key elements of the reform package include amendments to the RMA which will:

- provide for standardised templates for RMA plans;
- remove the need to obtain a resource consent for "minor activities"; and
- streamline the plan-making process (Minister for the Environment, 2015, pp. 4–5).

The Minister also announced that the Government will be developing a National Policy Statement (NPS) on urban development, which will "require more robust planning processes and better provision for growth" (2015, p. 5). The NPS is designed to respond to inadequate provision of development capacity by local authorities:

> Councils have not adequately planned for growth and that has contributed to the sorts of housing supply and affordability problems in places like Auckland and Queenstown. Councils have been excessively captured by nimbyism that has seen insufficient provision made for either greenfields or brownfields development. (2015, p. 5)

Without knowing the specifics of the proposed new legislation and NPS, the focus of reform appears positive. If well-designed, an NPS on urban development could help to:

- provide expectations for how councils should provide development capacity for urban uses, including housing;
- put greater focus on housing and urban development issues;
- improve transparency about the performance of the planning system; and

- partially constrain the tendency of local ratepayers and homeowners to oppose the expansion of cities and provision of development capacity.

However, the Commission did not consider that these steps would be enough on their own to improve the performance of planning framework and resolve the systemic weaknesses identified above, in particular low responsiveness, the lack of integration and scope creep. A deeper and more substantive review of the planning framework – which looked at the interaction of the three main planning Acts – is needed to deal with these difficulties. Such a review is more likely to resolve the identified problems than the alternative legislative pathway proposed in the draft report.

A deeper review of the planning framework now is also sensible, given that the Housing Accords and Special Housing Areas Act 2013 (HASHA) will begin to expire in September 2016. A number of submitters to this inquiry (primarily local authorities) spoke positively about the HASHA Act provisions (Wellington City Council, sub. 21, p. 11; Western Bay of Plenty District Council, sub. 36, p. 9; Tauranga City Council, sub. 47, p. 11; Local Government New Zealand, sub. 54, p. 5; Hamilton City Council, sub. 70, p. 3). A substantive review would allow the Government to avoid gaps opening up in the planning system when HASHA expires.

F11.2 A review of the planning framework is timely and would provide an opportunity to address its weaknesses.

The details of a future planning framework would need to be worked out through a considered policy development process. However, through the course of this inquiry, the Commission has identified a number of elements that could helpfully form part of a future planning framework; in particular:

- a formal place for spatial plans;
- greater involvement by central government;
- a recognised role for price signals in planning decisions;
- stronger, upfront checks on regulatory quality;
- more responsive rezoning; and
- easier development of neighbourhood plans or strategies.

11.4 Formal recognition of spatial plans

As was discussed in the draft report, many of the local authorities that were the focus of this inquiry had developed spatial plans to help coordinate land use, infrastructure and transport investment decisions (Table 11.1). With the exception of the Auckland Plan (which is required under the Local Government (Auckland Council) Act 2009), all of the New Zealand spatial plans were voluntarily prepared at the initiative of participating councils, using the consultation processes in the LGA.

Table 11.1 New Zealand spatial plans

Spatial plan	Participants	Required by legislation?	Period
Whangarei District Growth Strategy	Whangarei District Council	No	50 years (with a strong focus on the next 30 years)
Whangarei Urban Growth Strategy	Whangarei District Council	No	20 years
The Auckland Plan	Auckland Council	Yes	30 years

Spatial plan	Participants	Required by legislation?	Period
Future Proof	Waikato Regional Council, Waikato District Council, Hamilton City Council, Waipa District Council, New Zealand Transport Agency, Tangata Whenua	No	50 years
Hamilton Urban Growth Strategy	Hamilton City Council	No	35 years
SmartGrowth	Tauranga City Council, Western Bay of Plenty District Council, Bay of Plenty Regional Council, New Zealand Transport Agency, Tangata Whenua	No	50 years (with a strong focus on the next 20 years)
Greater Christchurch Urban Development Strategy	Christchurch City Council, Selwyn District Council, Waimakariri District Council, Environment Canterbury, Te Rūnanga o Ngāi Tahu, New Zealand Transport Agency	No	35 years

Wellington City Council is also in the process of preparing a 30-year Urban Growth Plan (UGP) that will bring together its existing urban development and transport strategies. According to the Council, the UGP will align "land use and infrastructure planning and financial and asset management. This will provide certainty of investment for the community, developers and the Government" (sub. 21, p. 13).

The various spatial plans typically seek to encourage integrated housing land use decisions through the following mechanisms:

- forecasting future land demand, based on population, household and economic growth projections;
- identifying future growth areas, where new or more intensive development will be enabled;
- encouraging or allowing more intensive development within existing urban or town areas;
- staging the release of land to ensure coordinated provision of infrastructure;
- identifying major infrastructure projects required to support the release of land; and
- requiring structure or outline development plans to be prepared before land is released or consented, to enable detailed transport and infrastructure decisions to be taken alongside land use.

Benefits

In its performance benchmarking of Australian planning, zoning and development assessment systems, the Australian Productivity Commission (APC) concluded that 'strategic land use plans' (such as spatial plans) could help avoid a misallocation of land types or development in sub-optimal locations (APC, 2011a, p. 135).

It is difficult to assess the relative effectiveness of New Zealand regions or districts with spatial plans in releasing sufficient land for residential development, although some developers cited the Tauranga City Council (TCC) "through the Western Bay of Plenty SmartGrowth Strategy…[as]… doing a good job in making land available for housing" (Te Tumu Landowners Group, sub. 40, p. 3; Bluehaven Holdings, sub. 42, p. 3).

Submitters to the inquiry pointed to a number of benefits from the spatial planning exercises, including better regional cooperation and understanding, more efficient infrastructure investment and use, and an enhanced ability to respond to crises and new policy initiatives (Box 11.3).

Box 11.3 **Submitters' views on the benefits of spatial plans**

Better regional cooperation and understanding

> The Agency sees considerable merit in these growth strategies, both in terms of providing a vision for enabling future growth and as a means for fostering strong relationships between the key stakeholders involved in the development process. (New Zealand Transport Agency, sub. 73, p. 8)
>
> Future Proof has provided a basis for growth to be managed in a collaborative way for the benefit of the sub-region both from a community and physical perspective. This growth strategy provides a framework for ongoing co-operation and implementation…[it] has not only been extremely useful in ensuring integration across the planning and development system but has enabled effective discussions on planning and development to happen across political boundaries. (Waikato District Council, sub. 12, p. 9)
>
> The main advantage of the SmartGrowth approach is to bring together local government, tangata whenua and central government agencies (such as NZTA) in determining agreed outcomes and actions for growth management and community development in the Western Bay of Plenty subregion. (Bay of Plenty Regional Council, sub. 46, p. 8)
>
> Smart Growth in Tauranga has encouraged collaboration across different planning frameworks and consideration of cross boundary issues. (Property Council New Zealand, sub. 33, p. 11)

Infrastructure efficiency

> …the Agency strongly supports the integrated planning and delivery of land-use and infrastructure in order to optimise network efficiency, enhance value for money, and maximise transport benefits. (NZTA, sub. 73, p. 4)
>
> The change to the strategic planning approach was born from a realisation that infrastructure needed to be rationalised and coordinated with growth areas, which then would allow the Council to effectively plan how and where infrastructure was going to go and how it was going to be paid for. (Selwyn District Council, sub. 45, p. 3)

Enhanced responsiveness

> The Agency has noted that the relationships and trust built up over years of involvement in non-statutory growth strategies has proven critical in recent initiatives to bring forward the release of land for urban development, either as Special Housing Areas or as part of the Canterbury earthquake recovery. (NZTA, sub. 73, p. 13)
>
> The pre-earthquake work undertaken by the Greater Christchurch Urban Development Strategy Partnership provided a key platform for the Christchurch recovery. (Canterbury Earthquake Recovery Authority, sub. 61, p. 2)
>
> Having clearly identified areas earmarked for development, for example, as under the Urban Development Strategy (UDS), speeds up the decision-making process. (Environment Canterbury. sub. 20, p. 4)

Greater certainty

> We are firm supporters of city planning through spatial plans. These give the broader development community more certainty for future commercial and residential investment choices. (Property Council New Zealand, sub. DR100, p. 1)
>
> One of the key values of the Settlement Pattern as an integrated, long term blueprint for development is in sending clear and unambiguous signals to the market and other stakeholders, as well as providing investment certainty. (SmartGrowth, sub. DR106, p. 4)

Cost savings

> …we are aware of work completed for the Waikato Mayoral Forum which estimated that there could be efficiency savings for the Waikato region in developing a spatial plan of $40 - $50 million over 10 years from having fewer plans, policies [and] bylaws and common planning procedures. (Hamilton City Council, sub. DR114, p. 3)

F11.3 Inquiry participants reported a number of benefits from New Zealand's spatial planning processes, including greater intra-regional cooperation and understanding, more efficient infrastructure use and investment, a better ability to respond to new policy initiatives, cost savings and greater certainty.

Barriers to the effective implementation of spatial plans

Under current arrangements, spatial plans must be translated into RMA regulatory plans (eg, Regional Policy Statements, District Plans), LGA and LTMA plans through additional processes. A number of submitters expressed particular frustration at the consultation requirements involved in translating spatial plans into RMA regulatory documents (subs. 36, 38, 39, 45, 54, 70 & 73).

The NZTA also argued that it can be difficult to "maintain commitment" to the spatial plans, in part because of the "litigious process of the RMA…[which]…mean that while significant resources and costs are expended, the resulting plan may not align with the growth strategy" (sub. 73, p. 9). Although a number of spatial planning exercises have been successfully embedded into RMA plans (eg, SmartGrowth), this process has sometimes been lengthy due to appeals. In the case of the Greater Christchurch Urban Development Strategy, the plan changes required to give effect to the strategy had been under appeal for some time and were finally introduced into the Canterbury Regional Policy Statement using Ministerial powers under the Canterbury Earthquake Recovery Act 2011.

Translating spatial plans into LGA and LTMA processes can also be challenging, particularly where the objectives of spatial plans are not clearly reflected in the service and budget plans of local authorities. The New Zealand Council for Infrastructure Development notes that because of "their limited legal status, and lack of funding support through LGA and LTMA processes, non-statutory strategic plans face significant challenges in their implementation" (2015, p. 38). Still more challenging is translating this into land use markets, as illustrated by the disconnect between the Auckland Plan and Proposed Auckland Unitary Plan (PAUP) (see Chapter 12).

F11.4 Duplicative statutory consultation requirements and weak legal connections between the different planning Acts make it time-consuming and challenging for local authorities to successfully translate spatial plans into RMA regulatory plans and other planning processes.

Future requirements for spatial plans

The Commission considers that spatial plans should be formally included in a future planning system, subject to some constraints. There are obvious benefits in having a central strategic plan that clearly lays out how and where the city is expected to grow over the medium-term, how much land and development capacity will be required, the types and costs of infrastructure that will be needed to facilitate growth, and the transport investments that will need to be made.

To maximise their benefits, the Commission recommends that recognised spatial plans in a future planning framework should be more narrowly-framed and have the following attributes:

- *Stronger legislative weight:* under current legislation, RMA and other plans must only "have regard to" spatial plans. This is the weakest level of legislative influence available, and explains why local authorities have faced such difficulties translating spatial plan decisions into regulatory and other planning processes. On its own, stronger legislative weight for spatial plans is unlikely to significantly speed up their translation into land use regulation, although it may help at the margin.[51] The main advantage of such changes would be to improve the alignment of other plans with spatial plans, and improve the

[51] Tauranga City Council argued that giving "legal status to spatial plans by clarifying that district plans must give effect to spatial plans would have the effect of 'speeding up', to some degree, their delivery into District Plans and Regional Policy Statements". However, TCC also noted that it is "appropriate that spatial plan outcomes are tested in the community" (sub. DR102, p. 8). Hamilton City Council, on the other hand, agreed with the Commission's finding in the draft report that the speed of translation is unlikely to significantly improve (sub. DR114, p. 3).

ability of local authorities (and other stakeholders) to defend land use regulation proposals in court. Stronger legislative weight for spatial plans in LGA and LTMA processes would align local authority service plan and budgets with the identified longer-term needs of the city and help to ensure that spatial plan objectives (especially for the growth and maintenance of the infrastructure network) are adequately funded.

- *Clear priorities and trade-offs:* successful spatial plans help local authorities make consistent decisions when "faced with difficult land use and resource decisions" (McAfee, 2013, p. 21). An independent review of the Auckland Unitary Plan engagement process by Vancouver's former director of planning concluded that the Auckland Plan failed to "provide clear direction for responding when choices need to be made between valued directions" and that the absence of clear and publicly available trade-offs in the Auckland Plan complicated the development of the Unitary Plan (2013, pp. 1, 21–22) (see Box 12.1).

- *A much tighter focus on activities and goals that have a close link to land use:* spatial plans are more likely to be effective when they concentrate on activities that are of high importance to the functioning of cities (eg, land supply, infrastructure provision, transport and public facilities), relate closely to the use of land or space (eg, economic and employment growth, population growth) and the management of negative externalities, and that are most efficiently dealt with at a local level.

- *A statement of expected housing demand:* one of the strengths of the Auckland Plan has been its transparent strategy to meet the region's housing shortfall coupled with some analysis of the levels of dwelling production that would be needed to meet forecast demand. This analysis has helped inform public debate on the Unitary Plan and the need for change, and have acted as an important accountability tool.

- *Close engagement with infrastructure providers and extensive use of data:* to develop implementable long-term strategies for cities, spatial plans need to be grounded in data, especially about the costs of providing the necessary infrastructure and services. Greater use of asset management information systems (as recommended in Chapter 8) would help provide such data. It is notable that in the case of Auckland, some of this information – such as the costs of extending the infrastructure network to accommodate a million more people over 30 years and to ensure both a 20-year forward land supply and 7-years' worth of unconstrained development capacity – is only now being developed, through such mechanisms as the Draft Future Urban Land Supply Strategy. Similarly, a review of Auckland's urban planning system by SGS Economics & Planning concluded there "is a real concern that land use aspirations in the Plan are not matched by sufficient planned investment in road and rail infrastructure" (2014, p. 76).

  The New Zealand Council for Infrastructure Development attributed the limited contribution of infrastructure providers and data to the Auckland Plan to overly tight timeframes and the pressures of establishing a new council:

  > …the Auckland Plan was not developed with sufficient engagement from, nor detailed data on, the activities and needs of Watercare and Auckland Transport.
  >
  > The Auckland Plan is aspirational, while the activities of Auckland Transport and Watercare are critical.
  >
  > The Auckland Plan was developed in the early stages of the Auckland Council's formation and was required to be complete within an undesirably short timeframe in order to inform other (poorly aligned) planning processes, including the Long Term Plan and Unitary Plan….
  >
  > Through the forthcoming revision of the Auckland Plan, we would expect much greater engagement with Auckland Transport and Watercare and much wider use of empirical information to guide strategic priorities. We expect this process will result in a less aspirational and more pragmatic alignment of development and infrastructure service priorities. At this point, less conflict with CCOs [Council controlled organisations] should be expected. (sub. DR132, p. 18)

F11.5

Spatial plans have a place in a future planning system, and the planning framework should be designed to ensure that such plans:

- have stronger legislative weight in other planning processes (ie, land use regulation, transport and infrastructure);
- express clear priorities and trade-offs;
- include a statement of expected housing demand;
- focus on activities and goals that have a close link to the demand for and use of land, and
- make extensive use of data and are designed with close involvement from infrastructure providers.

Creating a formal place for spatial plans potentially adds one more layer to an already complex system. This complexity could be reduced by re-allocating some functions within the planning system. For example, given that a key function of spatial plans is to figure out the location, scale, costs and drivers of a region's future infrastructure and transport needs, it would seem logical for long-term infrastructure and transport planning obligations (currently conducted through the 30-year infrastructure strategies in Long-Term Plans (LTPs) and the setting of 10-year transport priorities in Regional Land Transport Plans) to be met through spatial plans.

There is also potential to collapse or remove some current plans in a new framework. For example, where a spatial plan covers a large metropolitan or sub-regional area, it is questionable whether the full suite of RMA plans is needed to implement land use regulation – ie, a Regional Policy Statement (RPS), Regional Plan and District Plan. This issue was partially recognised in the Auckland governance reforms, where the newly established council prepared a 'combined plan' that met the requirements of both a District Plan and an RPS. Yet feedback from Auckland Council suggests that the design of the regulatory system offers scope for further efficiencies:

> Council believes that the benefits of preparing a regional policy statement virtually drop away when there is only one plan for a region. Council recommends that where a local authority is specifically required to prepare a spatial plan, the regional policy statement requirement should be removed from any resulting RMA unitary plan. If this approach is adopted, unitary plans should still be able to specify that certain objectives and policies are of strategic importance, can only be changed by the council (or councils), and that all plan changes must be in accordance with those objectives and policies. (sub. 71, p. 15)

TCC also expressed concerns about the 'nimbleness' and flexibility of an RPS, noting that the time and cost required to change an RPS, the inability of private parties to seek plan changes, and the complexity created by the full suite of RMA plans make it hard for the planning system to respond promptly when circumstances change (sub. 47; sub. DR102).

F11.6

The planning system has scope to be rationalised, by re-allocating some existing functions and collapsing or removing some of the plans that are currently required.

Should spatial plans include land use regulation?

In the draft report, the Commission proposed that spatial plans should also include land use regulations, as a way of streamlining the planning system by removing an additional layer. A number of submitters questioned this proposal, on the grounds that developing land use rules requires different types of consultation or analysis:

> The development of land use rules in a spatial plan is not considered appropriate because rules require far more detailed analysis and direct consultation with affected land owners. The spatial plan should

> deal with future land use in a broad context, for example identifying areas of growth and expected changes to zoning over time. (Western Bay of Plenty District Council, sub. DR104, pp. 4–5)
>
> TCC supports in principle the possibility of new legislation that would enable better integration across land use, infrastructure and transport, but is not convinced that the statute should go as far as delivering land use rules. TCC considers that local communities need to have a say about …the local expression of the growth identified in the spatial plan etc, as they can currently do through RMA mechanisms. It is also important that land use rules are tested within an 'effects-based regime'. Any new integrating legislation should go so far as to identify [a] future 'road-map' for growth, but should possibly still rely on RMA based district/city plans to advance the rules to deliver growth. (TCC, sub. DR102, p. 9)
>
> Adding land-use rules to a spatial plan would significantly increase the complexity of the proposed spatial plan (even if the scope of the plan was significantly narrowed) and reduce its accessibility for the community. (Auckland Council, sub. DR135, p. 13)

As the Commission noted in Chapter 6, it is important for people affected by potential new land use regulation to be informed of these proposals and to have a say. If combining land use regulatory proposals in spatial plans significantly complicated the process of their preparation or reduced the ability of affected parties to understand and comment on regulatory proposals, then some separate mechanism would need to be retained to publicise and test proposed land use rules.

However, the Commission is also conscious that landowners already have incentives to inform themselves of potential changes to land use regulation, and that the publication of such proposals will attract attention. As TCC commented, it "is the translation of strategic aspirations into the formal regulatory mechanism of the district plan that 'ups the game' for most people"(sub.47, p. 8). This is likely to occur, regardless of the level in the planning system at which regulatory proposals are published.

The Commission still considers that there are benefits in rationalising layers in the planning system and that consolidating functions in spatial plans is one obvious response. But it acknowledges the views of practitioners that this may create difficulties for local authorities and affected parties. The question of how best to rationalise the planning system should be considered as part of the upcoming review.

11.5 Greater involvement by central government

In Chapter 3, the Commission noted that the decisions that a city might make about its growth may be at odds with the interests of central government in maximising the benefits to the economy of a larger city size. This could lead to a city growing at a slower pace than would be optimal from a national perspective, resulting in less income and welfare for New Zealanders.

The Government has already signalled a willingness to increase its role in planning, through the development of an NPS on urban development. As noted earlier, this is welcome. But a greater recognition of national interests in other areas could assist with the development of cities, including:

- continued development of longer-term infrastructure planning by central government;
- supporting the development of common datasets;
- working with cities to ensure their plans can accommodate enough growth, and
- monitoring.

Greater participation by central government in the planning system will also require better coordination between departments.

Long-term infrastructure planning of central government

Cities require long-term planning horizons, and this is reflected in the 10-year timeframes of LTPs and the recently introduced requirement for local authorities to prepare 30-year infrastructure strategies. Similarly, many of the current spatial plans have timeframes of 30 to 50 years. Yet, except for transport funding, central government has no equivalent obligation, despite the fact that cities depend on central government investments for key assets and services. Several submitters expressed frustration at the disjunct between

central government and local government planning and financial cycles (eg, subs. DR102, DR106 & DR114). In the case of one local authority, this disjunct had created direct costs:

> The poor predictability of central government investment in infrastructure presents a number of challenges for local authorities and their communities and opportunities for economic growth and development are missed. For example, in 2002 Omokoroa was planned as an urban growth area in part because NZTA had designated an upgraded state highway from Tauranga to Omokoroa which at the time was projected to be completed by now. Thirteen years later this has not yet occurred and it is having a negative effect on the development of this area, resulting in unused capacity in utility network infrastructure and significant holding costs for the local authority as development to fund the up-front cost is stalled. (Western Bay of Plenty District Council, sub. DR104, p. 7)

More broadly, the Local Government Infrastructure Efficiency Expert Advisory Group argued that the absence of "funding and strategic alignment between central and local government" means that spatial plans "cannot be effectively implemented" (2013, p. 75).

Central government has been taking steps to improve its long-term infrastructure planning, in particular through the development of 10-year Capital Intentions Plans and the recent *Thirty Year New Zealand Infrastructure Plan*. These steps were noted and welcomed by many submitters, although some believed that further work was needed to build up the necessary information base for long-term planning and to overcome 'silos' between central government departments (subs. DR114 & DR109).

Many of the arguments advanced for the introduction of mandatory long-term infrastructure strategies for council – greater transparency for taxpayers and other stakeholders, better decision making, planning timeframes that align with the life of assets (Department of Internal Affairs, 2013d) – apply equally to central government. Although the current Government has put much more focus on long-term infrastructure planning, the new processes (such as national infrastructure plans) are voluntary and effectively discretionary. Benefit could be gained from these processes becoming a permanent part of central government's planning and reporting framework. One option would be to amend the Public Finance Act 1989 to require governments to regularly prepare and publish a long-term infrastructure strategy. This could complement other disclosure and long-term reporting requirements in the Act, such as the long-term fiscal statement and the recently added investment statement.

R11.1 The Government should make the preparation of long-term infrastructure strategies a permanent part of central government's planning and reporting framework.

Common data and growth projections

Spatial plans rely on detailed information and projections of population, household and economic growth. In turn, these inform projected demand for land, transport and infrastructure. As discussed in Chapter 3, growth protections have limitations in that, on their own, they do not reflect the effective demand for housing. The Commission has responded to this weakness by proposing a stronger role for price signals in planning decisions (below, and Chapter 12).

However, any workable plan needs to make projections and assumptions about the future. The problem with the current set of spatial plans is that each uses a different set of projections and data. This complicates the ability of central government to carry out longer-term investment planning that complements city spatial plans. The Commission agreed with Future Proof, the Property Council and the NZTA that benefit would be gained in local authorities, the private sector and central government having a shared set of data, projection and assumptions to underpin planning by all parties:

> Key central government agencies that provide local services should be encouraged or required to undertake long-term service and infrastructure planning in growth areas in enough detail to be able to assess needs spatially in order to identify medium and long term capital investments that may be required. This planning should use the same growth projections and data as that used by local government to inform their planning. The Waikato region is working towards aligned data through the National Institute of Demographics and Economic Analysis (NIDEA) projections but central government agencies do not use this. (Future Proof, sub. DR109, p. 3)

> …without a common set of demand forecasting assumptions, planning horizons and the use of consistent language and terminology used by Local Government it is impossible to make the comparisons needed to make good planning decisions. This is particularly important where Local Government has housing and commercial supply targets to deliver on. An up-to-date, robust set of data and information will assist both Local Government and the development community to achieve set targets. (Property Council New Zealand, Attachment 1 to sub. DR100, p. 3)

> A key element in developing a robust growth strategy is to ensure that they are based on a realistic, agreed evidence base (especially around growth projections), and use sound assumption where required…Some thoughts on ensuring effective growth planning (and particularly the integration of land use and transport) include…[to]…develop an agreed and shared evidence base on growth demand, timing and sequencing required to maintain development capacity (land supply) between central and local government, and key infrastructure providers. (NZTA, sub. 73, p. 11)

R11.2 The Government should work with councils using spatial plans to develop a common set of data and growth projections that can be used to underpin planning at all levels.

Working with cities to ensure they can accommodate enough growth

Under current arrangements, decisions about the pace and size of population growth that will be accommodated are left largely to individual local authorities. This contrasts with Australian metropolitan plans, where 20–30 year targets to accommodate forecast growth for major cities are generally set by the State or Territory government. In the Commission's engagement meetings in Australia, planning officials and developers commented that this action by State / Territory governments helped change the nature of the debate at the city level from one of 'should we accommodate growth?' to 'how can we best accommodate growth?' This was particularly evident in southeast Queensland. Difficulties in moving beyond 'should' discussions in some cases appear to have created problems for Auckland Council in its consultations with the public over the Unitary Plan (McAfee, 2013, p. 17).

In effect, State government involvement in Australian city plans sets an upfront constraint within which local communities have to work. The New Zealand planning system has no similar constraint, which may partly explain the significant local resistance to the more flexible Draft Unitary Plan and why the Independent Hearings Panel (IHP) has been left to push back on some of the more restrictive aspects of the Proposed Unitary Plan.

According to information released by the MfE, the proposed new NPS on urban development will introduce "[r]equirements for councils to provide sufficient capacity for urban development including housing" (MfE, 2015b, p. 2). It is unclear at this point whether the NPS will simply set down a methodology for assessing development capacity, or if central government will have a more direct role in agreeing growth paths with councils.

The Australian experience suggests there would be benefit in central government being involved upfront in ensuring city plans are sufficiently robust to accommodate growth and increased demand for dwellings. Given the issues with relying too heavily on population projections discussed in Chapter 3, the Commission does not consider that central government should set hard quantitative targets for cities. Instead, it should work with local authorities to test scenarios and risk management strategies as plans are being developed, and maintain regular contact with councils about the city's performance against their growth objectives.

F11.7 There would be benefit in central government being involved upfront in ensuring city plans are sufficiently robust to meet the demand for land for housing.

Monitoring

Until the passing of the HASHA Act, central government paid relatively little attention to the performance of local authorities in enabling sufficient land for housing. With the passage of the HASHA Act and the agreement of Housing Accords with major metropolitan areas, the Ministry of Business, Innovation and Employment (MBIE) has been publishing regular reports on the production of new sections and dwellings,

among other things. Such monitoring is important for assessing the performance of the planning system and should continue beyond the expiry of HASHA and the Housing Accords.

Broader monitoring of dwelling production will require better and more regular data. Housing represents one of the largest asset classes in New Zealand, yet in comparison with other sectors (eg, capital markets, manufacturing) there is relatively poor information available, and comparatively little analysis of it is carried out. For example, currently no regular detailed measurement of completed dwellings exists. Any available information (taken from building consents) is either infrequent or of questionable quality, as Statistics New Zealand found in 2009:

> While the census provides a five-yearly stock-take of occupied and unoccupied dwellings, reliable flow information is also needed, which requires information on housing additions and demolitions. Existing information on housing demolitions is of poor quality, which affects the robustness of data on changes to the housing stock.
>
> Currently flow information is provided by building consents…However, a major issue is that there is no standardisation of the building consent forms and each territorial authority devises its own. This makes it difficult to extract the information required to produce official statistics. In addition, the forms are often poorly completed, requiring a lot of grooming, or they are late and need to be chased up.
>
> If the number of approved dwellings is to be used to estimate changes to the stock of dwellings available, it should be adjusted for demolitions and conversions. (Statistics New Zealand, 2009, p. 22)

A 2011 progress report on housing statistics noted that little progress had been made on improving building consent data (Statistics New Zealand, 2011), and inquiries with MBIE suggest that this work has not yet been completed. Without progress on this indicator, local authorities and central government are likely to struggle to accurately assess the state of high-growth housing markets.

F11.8 A need exists for better and more regular data on changes in the dwelling stock, especially housing additions and demolitions. Existing information provided through building consents is of poor quality.

R11.3 The Ministry of Business, Innovation and Employment, Statistics New Zealand and councils should work together as a priority to improve the quality of official statistics on changes to the dwelling stock, including demolitions and conversions.

Greater coordination within central government will be needed

In its submission on the draft report, Local Government New Zealand argued that central government needs to increase its capability on urban issues, if it is to constructively participate in the planning system:

> The two [factors] that LGNZ believes need to be addressed are:
>
> - the capability and capacity of central government agencies to advise on and develop policies supportive of our urban environments
> - the adequacy of the roles, powers and policy levers available to our city governments to be able to do their job.
>
> In both cases we are falling behind international practice. Central government has no stand-alone urban policy unit or a Minister responsible for urban affairs. This shows, as Government policies towards cities and urban areas are not well joined up and can be directly detrimental. (sub. DR130, p. 4)

The Commission agrees that, if the national interest is to be better reflected in urban planning, central government will need to focus more energy on the issues facing New Zealand's cities. However, the Commission was not persuaded that a "stand-alone urban policy unit" was the best response.

Most of the functions needed to engage with cities are already in place within central government. The primary problem is not an absence of capability, but a lack of leadership and coordination. Under current arrangements, responsibility for urban planning matters is spread between the:

- Department of Internal Affairs (for infrastructure, financing and Local Government Act policy);
- Ministry for the Environment (for planning policy);
- Ministry of Transport and New Zealand Transport Agency (transport policy and implementation); and
- Ministry of Business, Innovation and Employment (building and construction policy).

Adding a new agency or Ministerial portfolio would not necessarily improve coordination, and could potentially further complicate matters. Instead, greater focus and higher performance could be achieved by standard public management techniques, such as the establishment of:

- a Cabinet Committee for urban development issues;
- a senior officials' coordinating group to service the Cabinet Committee and oversee the delivery of outputs; and
- a clear work programme and set of priorities to guide departments.

F11.9 Responsibility for urban planning matters is currently distributed between several central government departments. If central government is to play a more active and engaged role in the development of cities, greater coordination between these departments and Ministerial leadership will be required.

R11.4 The Government should establish processes to better coordinate departments involved in urban planning, so that it can engage more effectively with urban councils.

11.6 A recognised role for price signals in planning decisions

As discussed in Chapter 3, New Zealand's planning system is largely political with administrative inputs, and does not make use of prices – especially land prices – in taking decisions around land use. This limits the ability of the planning system to understand, and promptly respond to, changes in demand.

The absence of price signals in planning systems is not unusual internationally, as Cheshire's and Sheppard's (2005) description of the British planning system makes clear. The lack of price signals means that planners and local authorities end up relying on proxies or subjective criteria to make decisions:

> Judgements as to whether development would reduce amenities or cause transport problems were on the basis of professional norms which were defined in physical terms but the parameters of which rested on purely subjective and / or aesthetic values. The system was developed on the basis of concepts such as 'housing need' (rather than demand) and on design norms with – for example, densities defined by physical criteria – so many dwellings per acre. (Cheshire & Sheppard, 2005, p. 648)[52]

This reliance on proxies means that plans can fail to properly take account of developments on the ground:

> [N]o account is taken of the possibility that the most profitable use of land may be to leave it undeveloped to maintain the option of later development (Titman, 1985; Mayo and Sheppard, 2001). Land which has been made available for housing (or any other specified use) is deemed to be a part of land supply even though the owners of the land may rationally choose to keep such land vacant. This leads to a situation in which planners rationally decide that there is sufficient land available for housing (for example) because projections of household numbers at permitted densities can be accommodated on the land which has been designated, but the available land is not developed either because the owners of designated land have objective functions which include other factors than direct monetary returns or – more probably given the pattern of land prices that has resulted from the constraints imposed on land supply – choose to keep the land vacant to retain the option of more profitable development at a later date. (Cheshire & Sheppard, 2005, pp. 648–49)

[52] Although Cheshire's and Sheppard's description is based on the British Town and Country Planning system, many of its features apply to New Zealand's system.

These sorts of symptoms have been seen in some New Zealand cities, where plans and land supplies were set on the assumption of more intensive development (eg, townhouses, apartments) that has not occurred (Box 11.4). Similar debates are also currently taking place in Auckland around the intensification objectives and assumptions underpinning the PAUP (Nichols, 2015).

Box 11.4 **When planned and actual development diverge**

Western Bay of Plenty

The Western Bay of Plenty's SmartGrowth spatial plan sets out where the future growth of the region will occur, by agreeing a 'Settlement Pattern' and setting targets for the types of residential development. 75% of growth in dwellings in the region to 2051 is expected to be met through greenfield development, with the remaining 25% to be delivered through infill (6%) and intensification (19%). But a 2012 review concluded that the 19% intensification target "would be about 300 to 400% greater than the recent trend for residential intensification" and that it was "difficult to successfully deliver residential intensification", as apartments were more expensive to build in Tauranga than equivalent-sized standalone dwellings. (pp. 4 and 6)

Nelson

Nelson's regulatory and non-statutory plans seek to achieve greater intensification, particularly around transport nodes. However, Nelson City Council's 2012/13 effectiveness and efficiency review concluded that "intensification is not potentially occurring to the degree needed to adequately support public transport … or accommodate future population growth as anticipated in the NRPS [Nelson Regional Policy Statement] and Nelson Urban Growth Strategies". (p. 83)

Source: SmartGrowth / Tauranga City Council, 2012; Nelson City Council, 2013.

While prices do not always provide complete information (for example, due to the presence of externalities), they offer objective measures of demand and the adequacy of supply, both at a city-wide level or at the level of particular types of land. For example, a large price premium for industrial-zoned land compared to residential-zoned land would tend to indicate an undersupply of the former. Prices are a more direct and closer indicator of adequacy than estimates based on 'forward land supply' or theoretical capacity, because:

- they reflect effective demand, rather than projected demand; and
- forward land supplies or theoretical capacity may not be in the areas most desired by developers, buyers or businesses.

Prices also provide a useful mechanism for local authorities (and other parties) to monitor the adequacy of supply, in that they are dynamic and move in response to changes in demand.

Clearly, prices would not be the only factor to be considered in planning decisions, given that development can create spillovers for the wider community (eg, in terms of demands on public services and facilities). However, their introduction as a 'material consideration' would help to improve the performance and responsiveness of planning.

A future planning system should explicitly require local authorities to make use of land price information in their planning decisions, including through:

- the setting of overall land supplies through District Plan reviews;
- deciding on the allocation of land between different types of zones within a city or area; and
- triggering reviews or easing of planning controls where large price differentials emerge.

Proposals for the use of land prices in city-wide planning decisions are discussed in detail in Chapter 12.

R11.5 A future planning system should require councils to make use of land price information in their planning decisions, such as setting the overall land supply and deciding on the allocation between different types of zones (eg, industrial, commercial, residential) within a city.

11.7 Stronger checks on regulatory quality

The expectation behind the introduction of the RMA was that regulation would only be used when justified and necessary. Lindsay Gow, a former MfE Deputy Secretary who helped introduce the RMA, commented that the goals for the RMA were to

- Ensure that plans, and especially rules, were based on clear outcomes (called environmental results in the RMA), related evidence and reasoned analysis, not to mention community involvement and support;
- Ensure regulatory rules were only used where these were best applied, rather than just because they were an easy means to claim problems would be solved. (Gow, 2014, p. 7)

These expectations have not been met, in part because the production of new rules is often seen as the easiest option:

> A big problem with plans is that rules are not by any means necessarily the first or best means of achieving outcomes. But they are relatively easy to produce, and politicians like them because they appear to be costless. By contrast, economic instruments (like subsidies and incentives, or charges for resource use) present a very different picture to politicians and voters. (Gow, 2014, p. 8)

A number of the recommendations in this report will go some way to counter the incentives to produce unduly restrictive or burdensome land use regulation, including:

- better aligning development contributions with the cost of providing infrastructure, more user charging for infrastructure services and greater room for local authorities to apply road congestion charges and road tolling (Chapter 9);
- spatial plans with legislative weight that have clear priorities and trade-offs (this chapter), and
- the 'price trigger' tool outlined in Chapter 12.

Yet none of these options directly tests the quality or need for new land use regulations. Under the RMA, the section 32 requirement to prepare an evaluation report is supposed to provide this check but, as discussed in Chapter 5, the quality of underpinning analysis for land use regulations in District Plans is often poor. Even when rigorous analysis was conducted (such as the cost–benefit reports prepared for Auckland Council), it did not necessarily lead to better decisions. The ability to appeal plan changes in the RMA provides some ability to correct poor decisions by local authorities, but this check only works where affected parties have the resources to challenge a council in the courts.

The Commission concluded that a significant improvement in land use regulatory quality would require an independent check with broader coverage than appeals. In the draft report, the Commission proposed that future plans could have their regulatory proposals peer reviewed by the Treasury's Regulatory Impact Analysis unit or by an IHP. There was little support from submitters for the Treasury having an oversight role for plans. Those who commented opposed greater Treasury involvement on the grounds that it would unnecessarily slow down plan-making, or that central government officials would lack the local knowledge or information needed to properly test draft regulation (subs. DR102, DR104, DR108 & DR128).

The Commission was not persuaded by arguments about the impact on the pace of plan making. Any form of external oversight is likely to involve some slowing of decision making, and is justifiable where it leads to better quality decisions. However, the Commission concurs that testing of regulatory proposals is more likely to be effective where the interrogators have local knowledge and understand the context.

IHPs are a relatively new innovation in the planning system, which were introduced in response to the Auckland governance reforms and the need to review Christchurch's District Plans following the Canterbury earthquakes (Box 11.5).

Box 11.5 **The Auckland and Christchurch Independent Hearings Panels**

The Local Government (Auckland Transitional Provisions) Act 2010 established an IHP for the PAUP. The Panel may hear submissions on the PAUP, convene conferences of experts to resolve or clarify issues, refer specific issues and parties to mediation and must make recommendations to Auckland Council on the Plan (including, where relevant, changes to the Plan). Council must then accept or reject each of the Panel's recommendations. Submitters may make objections to the Hearings Panel if the Panel declines to consider their submission or strikes out their submission in whole or in part. Decisions on objections may not be appealed.

Submitters can only appeal to the courts in the following circumstances.

- A submitter can appeal to the Environment Court on a matter they submitted on where the Auckland Council rejected a recommendation of the Hearings Panel.
- A person unduly prejudiced can appeal to the Environment Court where Auckland Council accepted a recommendation by the Hearings Panel that was beyond the scope of submissions.
- Submitters can appeal to the High Court on a question of law where Auckland Council accepts a Hearings Panel recommendation (MfE, 2013c, p. 4).

The Canterbury Earthquake (Christchurch Replacement District Plan) Order 2014 modified the RMA to enable an accelerated process for reviewing the Christchurch City and Banks Peninsula District Plans. As in Auckland, an IHP has been established to hear submissions and make recommendations on a replacement Christchurch district plan. Objection rights are similar to those for the Auckland IHP. Appeals may only be made to the High Court on questions of law. Also, only Ministers, the City Council or submitters (in relation to matters raised in their submission) can appeal to the High Court.

The Auckland Unitary Plan IHP is chaired by Environment Court Judge David Kirkpatrick and comprises seven other members with expertise in urban planning, law, tikanga Māori and economics. The Christchurch IHP is chaired by retired High Court Judge Sir John Hansen and includes members with significant legal, planning and development experience.

The IHP process retains council ownership over RMA plans, as local authorities have the final say over the IHP's recommendations and can reject them if they wish. Yet in the case of the Auckland IHP, the link of appeal rights to council decisions over the IHP's recommendations provides incentives for the local authority to accept the IHP's proposals. IHPs also have the benefit of bringing impartial and expert scrutiny to planning proposals, and can encourage the resolution of differences between stakeholders through mediation. And by limiting appeal avenues, the process enables the final land use regulation to be implemented with greater certainty.

The two IHPs are at different stages, and neither has provided its full set of recommendations to its respective council. This means that it is too early to form a definitive judgement about their effectiveness. However, a number of inquiry participants spoke positively to the Commission about the role and performance of the IHPs to date; in particular about:

- the depth of expertise and rigour the IHP members have brought to the issues under consideration; and
- the focus that the Auckland IHP members have brought to testing the ability of the PAUP's rules to deliver on its strategic objectives of accommodating growth within a compact urban form.

The Commission sees a place for something like the IHPs in a future planning system. However, this needs to be informed by an evaluation of the experience with the Auckland and Christchurch Hearings Panels. Some inquiry participants expressed concerns about the impact of complex processes and very tight reporting timeframes for the Panels[53] on public engagement:

> Feedback from Auckland communities on the experience of the IHP process has been mixed – some are positive around the expertise and robustness of process, others are negative around the complexity and difficulty of navigating through it. (Auckland Council, sub. DR135, p. 21)

> We are aware anecdotally of considerable concern about the quality of the instruments (having been prepared in great haste) and the speed with which the hearing processes are occurring in order to meet the tight timeframes set by government. Strong concerns are being expressed by individuals (who have allegedly almost completely departed the processes because of the amount of time they would otherwise be required to appear time and again on mediations, conferences, and hearing); also NGOs; and even businesses and business groups. (Environment Court, sub. DR92, p. 5)

Others told the Commission that the short reporting timeframes limited the ability of the IHPs to give sufficient consideration to what are very complicated regulatory proposals. These are serious matters, and should be explored in the ex post evaluation of the Auckland and Christchurch IHPs.

R11.6 Once the work of the Auckland and Christchurch Independent Hearings Panels (IHPs) is complete, the Ministry of Business, Innovation and Employment and the Ministry for the Environment should, in consultation with the relevant local authorities, evaluate the IHP processes, with a view to learning whether and how IHPs could be made a permanent feature in the planning system.

11.8 More responsive rezoning

As discussed in Chapter 6, rezoning land to provide more development capacity can be a time- and resource-intensive exercise. This limits the ability of the planning system to respond promptly to changes in demand.

Hill Young Cooper in their submission on the draft report proposed an alternative approach in which planning controls could be adjusted dynamically:

> Neighbourhood level development controls need to be 'objectively' set, but in a dynamic way. Either we crudely draw back density, height in relation to boundary, building coverage, and height limits across the board in the suburbs and see how it goes or we go 'deeper' into some form of algorithms that start to set development envelopes in relation to things like:
>
> - land value
> - site size, shape
> - topography, aspect
> - street environment (arterial, local)
> - infrastructure.
>
> These algorithms would be dynamic. Development envelopes would adjust 'automatically' as the place changes. Residents would not be able to resist the changes enabled by these algorithms, but if they knew what was coming in 3 or 5 years time to their area, given changes in the wider urban environment, then they could adjust to this. (sub. DR119, p. 7)

Existing planning processes do not enable such 'trigger-based' rezoning. Some newer RPSs do set criteria which would trigger land release or the expansion of urban limits, which District Plans must give effect to (for

[53] In the case of the Auckland IHP, the Panel commenced hearings in September 2014 and has to report by 22 July 2016. The Christchurch IHP was established in late 2014 and must complete its work by 9 March 2016.

example, Bay of Plenty Regional Council, 2014). But District Plans do not include future planning controls, and existing controls can only be changed through the sometimes lengthy Schedule 1 process.

One key reason why the current rezoning process takes so much time is the need to consult with affected parties on proposed changes to land use controls. Consultation with affected parties is an essential component of any regulatory system, and would need to be incorporated into a more dynamic rezoning model. One way would be to allow District Plans (or their replacements) to incorporate the current set of planning controls, the set of controls that would replace them, and the trigger that would be used to switch from one set to the next. These would be consulted on at the same time, giving affected landowners the opportunity to comment.

Once approved, planning controls could automatically switch over from one set to the next when the trigger was met. For example, more intensive development could be permitted once additional capacity was installed in the infrastructure network, or more community facilities were built. This would speed up the responsiveness of the planning system, and allow it to better meet changes in demand.

R11.7 A future planning framework should explore options for more responsive rezoning, allowing planning controls to adjust in response to specified triggers (eg, the installation of key infrastructure, population densities passing a certain threshold).

11.9 Neighbourhood plans

Resistance to change from existing homeowners and ratepayers is one key reason that cities can face problems accommodating population growth. As Chapter 3 explained, this resistance can be seen as a rational strategy, because of uncertainty about the impact of change on existing house values and amenity, and the high proportion of household savings that is concentrated in housing. A stronger role for central government is one way of countering this local resistance and reducing the 'wedge' between local and national interests.

Another way to counter resistance is to develop planning tools that give homeowners and residents facing change some assurance that the amenity of their neighbourhood will be protected or enhanced. Brisbane's neighbourhood plans are an example of such a tool (Box 11.6).

Box 11.6 **Brisbane City Council neighbourhood plans**

Neighbourhood plans are a mechanism that Brisbane City Council uses to help "manage … change and accommodate growth and better protect valued environments at a local level". They are used for areas experiencing considerable growth or change, or where growth is anticipated to occur. This means that not all areas in Brisbane have or need a neighbourhood plan.

Extensive consultation processes that seek to overcome information imbalances support the development of neighbourhood plans.

- Community engagement and planning teams visit key neighbourhoods to talk about options for facilitating growth. All Council planners are formally trained in consultation using International Association for Public Participation frameworks.
- The Council organises "meet the planner" days, where residents can discuss one on one the future of their neighbourhood and their concerns.
- Planning staff can use a "Virtual Brisbane" computer-generated 3D model to give residents a visual sense of what new developments would look like.

A key element of neighbourhood plans is identifying new or improved facilities or planning controls to protect amenities. In effect, these act as incentives for greater intensification, and help to reduce

opposition to development. For example, in return for greater density, the Chermside Centre Neighbourhood Plan provides for:

- "local road improvements that maintain accessibility for residential and commercial uses,
- public realm and pedestrian and cycle connections to key destinations through the provision of pathways and cross block links,
- high-quality built form enhancing the image of Chermside Centre."

Once neighbourhood plans are adopted, they form part of Brisbane's overall City Plan.

Source: Brisbane City Council, 2015.

Mechanisms such as the Brisbane City neighbourhood plans help to reduce some of the uncertainty associated with change, and allow local authorities to offer something practical in return for community acceptance.

In the draft report, the Commission asked whether scope existed in the planning system to introduce tools like Brisbane neighbourhood plans. Feedback from submitters indicated that it was possible to construct something like the Brisbane plans under the existing planning system, but implementation was difficult due to problems aligning land use rules and infrastructure planning and duplicative consultation requirements:

> In Hamilton, we already have examples of locally-based planning incorporated into the District Plan. An example is the Central City Zone in the Hamilton Proposed District Plan which also incorporates different rules for various 'precincts' or areas within the zone. In New Zealand, the infrastructure planning is incorporated in the Long Term Plan rather than the Proposed District Plan. In order to implement the Brisbane model completely, the infrastructure planning would need to be incorporated into the District Plan, which is currently not provided for in NZ legislation. A streamlined or separate legislative avenue which would allow the implementation of neighbourhood plans, including integrated land-use and infrastructure planning, could allow for the types of outcomes allowed via the Brisbane model to be incorporated. (Hamilton City Council, sub. DR114, p. 11)
>
> …in Western Bay of Plenty, Community Development Plans (CDPs) are prepared for each town – some are facilitated by Council staff and some are led by community groups. The scope of each plan differs according to the needs of each community, but for urban growth areas the plans include the full range of issues that would be included in a spatial plan. Through engagement with the whole community, the plans identify options for changes to land use, as well as initiatives and projects to improve social, economic, cultural and environmental well-being. Government and non-government agencies, community groups and service providers are all included in the planning process, which develops actions for implementation by a range of organisations, not only Council.
>
> With regard to greenfield development, Community Development Plans typically inform structure plans ahead of District Plan changes. One drawback of current legislation is the results of the CDPs then have to go through the RMA process which involves some duplication with respect to consultation. This raises the question of whether having undertaken a LGA consultation process (Special Consultative Process) should the same matter have to go through an RMA process as well? (Western Bay of Plenty District Council, sub. DR104, pp. 10–11)

The Commission considered that benefits would be gained in making it easier for local authorities to develop integrated plans or strategies to meet the needs of neighbourhoods facing significant change. Although a stronger role for national government will provide more balance in the planning system, sustainable change is more likely to occur where affected communities can see some direct benefits from accommodating growth.

R11.8 The review of the planning framework should aim to make it easier to develop neighbourhood plans, through which local authorities can provide targeted infrastructure or services for neighbourhoods facing significant change.

11.10 Expected impacts of these proposals

The desirable features of a future planning framework outlined above will have a number of impacts on the behaviour of local authorities and developers. From the Commission's perspective, the key impacts expected are:

- *Greater certainty for developers:* more-tightly specified spatial plans, with clearly expressed goals, trade-offs and infrastructure priorities should give developers greater assurance over the city's development path. Giving spatial plans more weight in financial and transport planning should also provide greater certainty that the city's development path will be appropriately funded.
- *Greater security for local authorities:* greater legislative weight for spatial plans would better allow local authorities to defend regulatory plan changes in the courts that advanced the objectives of spatial plans, and the use of IHPs (or equivalent bodies) would create opportunities to reduce appeals avenues. Longer-term infrastructure planning by central government based on shared datasets would give city councils greater certainty over the scale and timing of central government capital investments.
- *Fewer unnecessary burdens on development:* clear priorities in spatial plans, and the use of IHPs (or equivalent bodies) to test new regulatory plans against these paths, would help provide a check on unduly burdensome land use rules.
- *A system that responds more quickly to change:* greater use of land price signals, and faster rezoning, would better enable local authorities to judge the adequacy of land supplies and respond more quickly to changes in demand.
- *Better recognition of national interests:* greater involvement by central government in a future planning system would help to ensure that the planning and development system delivers sufficient development capacity to accommodate growth, and so reduce the risk of major land and house price increases (with the associated negative social outcomes) and the need for more draconian interventions later on.

11.11 Conclusion

Effective planning and development systems integrate decisions around land use, infrastructure investment and transport services. The ability of New Zealand's current system to deliver efficient and integrated planning is inhibited by an overly complex and disintegrated legislative framework, the limited role that central government plays in planning, the inadequate attention that legislation gives to the needs of housing and urban environments, a lack of nimbleness and the tendency for the scope of planning to continue expanding. Although recently announced reforms will go some way to resolving these issues, a deeper and more substantive review of the planning frameworks will be needed if we are to see significant improvements in performance. Changes proposed by the Commission would provide greater certainty for developers, greater security for local authorities, fewer unnecessary burdens on development, a more responsive planning system and better recognition of national interests.

12 Meeting demand for urban space

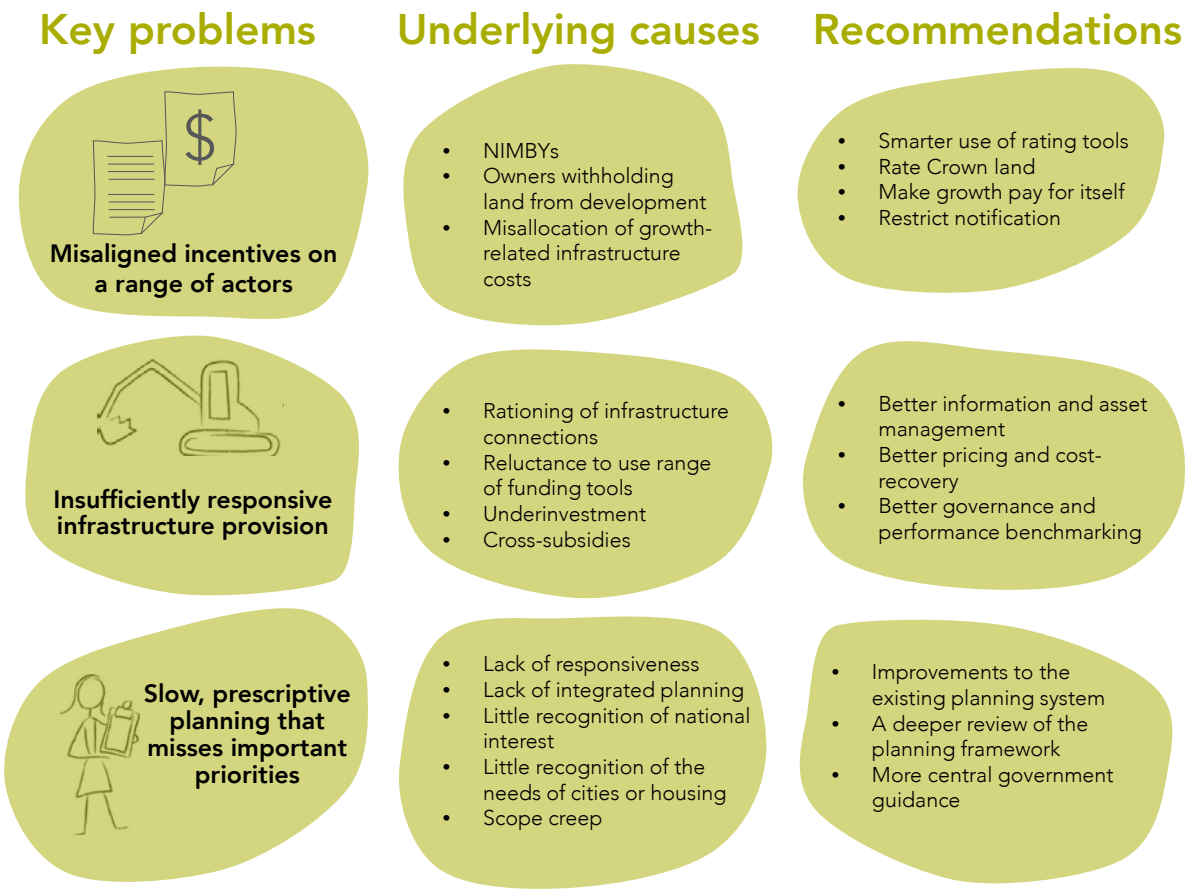
Key points

- Under our devolved regulatory framework for land use regulation, councils are responsible for land-use decisions, including providing space to meet demand for residential dwellings.
- New Zealand councils have a clear idea about how they want their cities to develop in the future, and how they intend to meet a growing population's demand for housing. For our larger cities, this includes pursuing compact urban forms that are considered desirable for a range of reasons. But some councils have difficulty in giving effect to those broad strategies through land use rules. The central problem is failing to confront the trade-offs between the interests of existing residents and the decisions about land use rules that will be required to accommodate new residents.
- Our largest urban councils are responding to the challenge of delivering on compact city forms by establishing local urban development authorities (UDAs) to redevelop existing urban areas of the city. Auckland and Christchurch have such vehicles, and Wellington is in the process of establishing one.
- UDAs offer significant potential to redevelop sites to deliver large numbers of new dwellings. They can also take advantage of economies of scale to generate efficiencies, and foster a larger, more efficient and more capable construction industry.
- Government should pursue a range of opportunities to support local UDAs. This includes providing for streamlined planning processes, and granting them powers of compulsory acquisition, within certain areas that are designated for redevelopment.
- Where councils are unable to confront the trade-offs necessary to provide sufficient residential space to meet growing demand, a range of negative social and economic consequences result. Central government bears many of the consequences of this failure.
- One measure of how effectively demand is being met is through relative land prices. Where large discontinuities emerge between the price of land that can be developed for housing and land that cannot be developed, this is indicative of the inadequacy of development capacity being supplied within the city.
- Government should take steps to ensure that where councils are unable to provide sufficient residential space to meet demand, additional ready-to-build land is made available to help the market provide the housing demanded by a growing population.
- Government should establish a process to monitor the relative price of developable and non-developable land. It should also establish a threshold of this price differential, beyond which it will take steps to ensure additional greenfield land will be released.
- This will assist councils in confronting the trade-offs necessary to accommodate demand for residential space. A commitment to increasing supply to meet demand will also change the incentives facing owners who are currently holding undeveloped land in expectation of future price increases, by removing expectations of ongoing land price inflation.

12.1 Introduction

The Commission has identified a number of problems inhibiting the supply of land for housing, and recommended a range of actions to improve supply (Figure 12.1).

Figure 12.1 Key problems and recommendations from earlier chapters



This report has identified a 'wedge' between local and national interests about the costs and benefits of growth in the areas of New Zealand experiencing the greatest housing demand. This mismatch of interests is exacerbated by local political processes and by mismanagement of the costs of growth. There are many opportunities to improve land use regulation in cities facing the greatest demand for housing. But without clearer central government expectations about the importance of meeting demand for urban space, and support in achieving this, it may be difficult to generate the changes in behaviour necessary to realise the full value of these improvements.

The role of local government in land use regulation

New Zealand's approach to local government and land use regulation is highly devolved (Chapter 2) and, as demonstrated in Chapter 3, is highly responsive to local democratic considerations (or at least that subset of the population that participates in local democratic processes). Many submitters were eager to emphasise the high value they placed on these arrangements:

> As householders are ratepayers they will be the ones who have to pay for Council decisions (now and in the future) and therefore legislation should be promoting more not less community engagement in decision making. (Jonathan Barrett, sub. DR82, p. 1)

> Many of the report's findings and recommendations appear to show a preference for an increased top-down approach to land use and development planning, which is of concern. Ministerial involvement in planning decisions could undermine local democracy and weaken the principle of subsidiarity that underpins the local government role. (Porirua City Council, sub. DR88, p. 2)

> Plan making at a local level is important as it takes into account issues of relevance to the local community and can look holistically at issues … (Hamilton City Council, sub. DR114, p. 12; Waipa District Council, sub. DR134, p. 9)

> Fundamentally, it should be the role of the local council to address issues in consultation with their local community. (Hamilton City Council, sub. DR114, p. 12)
>
> Giving enhanced power to central government to intervene in local democratic and planning processes is not a fair nor sustainable option. (Public Service Association, sub. DR121, p. 4)

The Commission agrees that, in principle, local government should control the way in which a community develops, including its physical form. But local democratic processes are dominated by interests that are stacked against accommodating growth. Land use regulation in New Zealand should take place in a way that recognises local preferences through democratic processes and seeks to confront local trade-offs. But local government should not be able to ignore growth and fail to plan sufficient capacity for it. Where local government does not respond adequately to demand, then serious local and national harms can result that are both social and economic in nature.

Section 3.6 of this report discusses the range of outcomes that result from the current housing situation:

- decline in home ownership rates;
- New Zealanders devoting increasing shares of their income to housing, with associated impacts on wellbeing;
- a more uneven distribution of national wealth;
- ongoing overcrowding in Auckland, with associated health and social costs;
- a greater risk of economic volatility and macroeconomic instability;
- barriers to labour market mobility;
- an undermining of the effectiveness of monetary policy to manage economy-wide inflation; and
- pressure on fiscal policy, through direct and indirect paths.[54]

These are significant risks and missed opportunities. The scale of the shortage of land for housing in some places, and especially in Auckland, and the difficulties in getting change, indicate a need for bigger steps.

There is clear evidence of a disconnect between the aspirations of some councils as expressed in high level documents, and the detailed land use rules that are designed to give effect to those strategies. This disconnect emerges because of a failure to confront the trade-offs that have been central themes of this inquiry: between the wealth and amenity of existing homeowners and the need of new households for affordable access to quality housing.

Central government should seek to enable and be supportive of local councils in delivering on their aspirations for the future of their cities. But it should also set expectations that ensure sufficient ready-to-build land is available for the market to deliver a sufficient range of dwellings of a type demanded by households. In the Commission's view, both strategies are necessary to ensure a sufficient capacity of land for housing is delivered in a timely manner. This chapter sets out a strategy to meet demand for urban space, by supporting cities to successfully achieve their desired urban form, but providing a backstop to ensure development capacity is always adequate to meet demand for new housing.

12.2 The aspirations of New Zealand cities

New Zealand councils generally have clear strategies for how they envisage growth occurring:

> Waikato District Council promotes planned growth and is not under pressure to make land available for housing. Council's growth planning is done in accordance with the sustainable management of natural and physical resources. Council focusses urban forms of residential, industrial and commercial development primarily into towns and villages with rural residential development occurring in Country Living Zones. (Waikato District Council, sub. 12, p. 10)

[54] For example, through accommodation supplements and state-sponsored social housing.

> In 2013 Council agreed a twenty year urban growth strategy which seeks to exploit opportunities for both intensification and greenfield development in order to provide the range of homes required in the city. (Hutt City Council, sub. 17, p. 1)
>
> Porirua City is in the process of preparing a structure plan to guide the future development, and zoning, of its Northern Growth Area. It is anticipated that this will result in an additional 250-300 hectares of land being made available for future residential development, from 2020/21 (subject to plan changes). While this area covers land that has topographical challenges, it is anticipated that this area will have the capacity to accommodate an additional 2000 residential allotments, meeting Porirua City's suburban growth demand (based on existing development trends) to 2040. Future extensions to this growth corridor could accommodate future residential greenfield growth of the city out to 2050+. (Porirua City Council, sub. 24, p. 3)
>
> The Tasman Resource Management Plan (TRMP) contains policies for each settlement on urban environment effects and dependant on the size of the settlement, policies exist to provide for the expansion and in some cases intensification of the settlement's urban area over a 20 year timeframe. (Tasman District Council, sub. 25, p. 7)
>
> As part of the Sectional District Plan Review the Council recently approved the Whakarongo Residential Area, a greenfield residential area capable of accommodating approximately 700-900 new homes. … The Council is also looking at incentivising well-designed medium density residential development … (Palmerston North City Council, sub. 26, pp. 1–2)
>
> The SmartGrowth Partnership also has another project underway called the Settlement Pattern Review. The Settlement Pattern is the blueprint for the growth and development in the western Bay of Plenty identifying the existing and future location of residential and business land in a geographic and temporal manner for the next 30-50 years. (Tauranga City Council, sub. 47, p. 4)
>
> Hamilton has an Urban Growth Strategy which sets out the future growth of the City. Hamilton is also a partner in the Future Proof strategy which was adopted in 2009 to achieve co-ordination of urban growth in the wider sub-region which encompasses Waikato District Council and Waipa District Council areas. … The two strategies outline where urban development will occur over the next 30-50 years which ensures the supply of housing will be sufficient to accommodate the expected demand driven by population growth. (Hamilton City Council, sub. 70, pp. 5–6)

Some of our larger urban councils have clear goals for urban intensification/regeneration, based around 'compact city' models:

> Major redevelopment opportunities in Wellington are in Te Aro flat (Central Area zone) or identified suburban growth areas such as Johnsonville, Newlands, and Kilbirnie town centres, and Adelaide Road. It is likely further place-based development frameworks will be developed in the future to promote urban renewal and provide opportunities for high quality development. (Wellington City Council, sub. 21, p. 16)
>
> Future Proof supports managed growth through the Future Proof Settlement Pattern, and implementing urban limits through the Regional Policy Statement. This enables local authorities to focus on the efficient delivery of their services. The Future Proof Settlement Pattern describes how the sub-region should develop in a unified and sustainable way with the aim for a more compact urban footprint. The Settlement Pattern is made up of key growth areas that have been identified within Hamilton City, Waipa District and Waikato District. (Future Proof, sub. 39, p. 2)
>
> Auckland is already focussed on ensuring there is adequate land supply for housing on a number of fronts. Auckland's spatial plan, The Auckland Plan, sets a target of an average seven years supply of 'ready to go' land for housing. … The high level Development Strategy in the Auckland Plan sets out how future development will achieve the quality compact urban form sought by Aucklanders. This includes ensuring high quality urban design, making efficient use of land, and providing staged expansion within the Rural Urban Boundary (RUB). (Auckland Council, sub. 71, p. 5)

This vision of urban development and growth – usually coupled with a dislike of "urban sprawl" and an emphasis on mixed use zoning, public transportation, and enabling walking and cycling – was firmly supported by many other submitters to the inquiry for a range of reasons including suggested health, biodiversity, food security and environmental benefits (subs. 6, 22, 51, 59, 60, 64, DR76, 85, DR87, DR99, DR115, DR116, DR131, DR136).

The Commission does not have a preference for whether cities grow out or up. Our larger cities will always have an element of both. In any event, what matters ultimately are the preferences of households and

whether they have available to them choice of housing types at different price points to cater for a range of income levels. Councils in our largest cities should be able to pursue the goal of a compact urban form if that is what their communities want. The key test is whether they deliver sufficient development capacity to house a growing population while delivering a choice of quality, affordable dwellings of the type demanded by purchasers. Those locational choices should internalise the costs of infrastructure provision.

Difficulty delivering on the vision

Despite clear ideas about how housing will be provided for in their cities, Chapter 11 notes that councils in our fastest-growing cities can have difficulties delivering on their spatial plans. These challenges are particularly evident in Auckland:

- commitments to a denser urban form in the Auckland Plan have not been sufficiently enabled in the Proposed Auckland Unitary Plan; and
- estimates of the amount of dwelling capacity that would be enabled in existing urban areas appear not to take account of the effect of overlaid restrictions on development or economic feasibility.

At the heart of the problem is high demand (other New Zealand cities would also struggle to accommodate the rate of growth that Auckland is experiencing), combined with a failure to confront the trade-offs necessary to give effect to the Auckland Plan. An international peer review of the draft Auckland Unitary Plan engagement process undertaken by Dr Ann McAfee, a former co-director of planning at the City of Vancouver, pointed to this weakness (Box 12.1).

Box 12.1 **Extract from *Review of Enhanced Engagement to Support the Draft Auckland Unitary Plan***

The Auckland Plan establishes directions which reflect best practices for livable cities. However, the *Auckland Plan* does not provide clear directions for responding when choices need to be made between valued directions. The Unitary Plan, in grounding directions to establish regulations, provided a 'real face' to *The Auckland Plan*. In preparing the Draft Unitary Plan the Political Working Party and officers assumed the burden of choice making. This resulted in stakeholders questioning premises underlying the Draft Plan.

…

Local engagement, without prior buy-in to *The Auckland Plan*, can lead to subtle stonewalling of city-wide directions.

…

Successful plans provide direction to elected officials faced with difficult land use and resource decisions. Where land and funds are limited decisions usually result in trade-offs between valued directions. *The Auckland Plan* acknowledges this challenge:

> "Provide sufficient development capacity … certainty and speed of … planning processes to enable the degree of redevelopment needed. This may require making some difficult decisions and trade-offs to achieve long-term outcomes."

The Auckland Plan contains policies to promote urban intensification and manage peripheral growth (RUB [Rural Urban Boundary]). These policies reflect best international practice. However, *The Auckland Plan* contains contradictions and vague directions which challenged the Unitary Plan preparation process. For example:

- Section 523: "No area should be compromised by … *inappropriate density* … Development opportunities must maximise the potential of each site, but never at the expense of high quality living." How is "*inappropriate*" density defined?

- Section 503: "There is capacity of approximately 20,000 additional dwellings within existing greenfield areas already identified or under development for residential uses. This will *generally* be developed before additional greenfields are released." How is *"generally"* defined?
- Section 472: "We must have a degree of flexibility to accommodate and support a broad range of land uses, activities and opportunities – things that "*fit*" comfortably within their particular rural location and that contribute to the viability and vitality of these areas". Who/how defines "*fit*"?

Caveats are easy to include in a descriptive plan. They are difficult to incorporate in regulations (Unitary Plan) such that there is regional consistency while acknowledging local variations. To provide the necessary guidance trade-offs need to be made.

…

Officers have done a creditable job of identifying contradictions in *The Auckland Plan* and recommending consistent responses in the Draft Unitary Plan. The difficulty is that when trade-offs are made out of the public forum they are not recognized and understood by the public. This led to the biggest challenge the Draft Unitary Plan faced.

Source: McAfee, 2013, pp. 3, 20–22.

The Auckland Plan envisages some 400 000 new dwellings being needed in Auckland over the next 30 years, of which between 240 000 and 280 000 are to be constructed in existing urban areas (within the Metropolitan Urban Limit (MUL)). However, recent modelling undertaken by a group of 15 experts (the 013 Expert Group, Auckland Council Development Capacity Model 2015) found that only about 64 000 additional dwellings could be developed under today's market conditions. In broad terms, the modelling found that areas earmarked for intensification are less economically feasible than areas protected from intensification. Some of the experts provided specific comments:

> I note that the analysis clearly shows the desired 70:40 split will be very difficult to achieve, and hence that a different approach is required to avoid the risk of a profound and prolonged undersupply of land. For example, the results of this report show that the number of dwellings feasible for redevelopment today is only 16% of the 400,000 target, and hence that the lion's share will need to come from other sources. (Fraser Colegrave in 013 Expert Group, 2015, p. 48)
>
> I believe the only realistic response to get far closer to the 240-280,000 Auckland Plan target of dwellings within the 2010MAU [Metropolitan Area] is to:
>
> 1. Eliminate the density rules in the mixed housing zones, which will single handedly provide the biggest impetus to affordable housing.
> 2. Substantially up-zone all areas of missed opportunity…
> 3. Educate the NIMBYs ["not in my backyards"] on the financial effects of upzoning. As long as AC [Auckland Council] maintains strong urban design controls, all property owners of upzoned land will financially benefit to a greater degree than sites that have had no zoning changes. (Patrick Fontein in 013 Expert Group, 2015, p. 44)

Auckland Council has subsequently resubmitted parts of the Unitary Plan to allow increased density in some residential areas of the city, but it is clear that the gap between the intensification sought and that which is feasible under the proposed Unitary Plan is large.

12.3 How our cities are responding

Urban development authorities

In its draft report, the Commission pointed to the important role that urban development authorities (UDAs) can play in enabling urban regeneration and residential development in other countries. It discussed several models of UDA overseas, and discussed initiatives that are very similar to UDAs within New Zealand.

Government land organisations (GLOs) – generally known as urban development agencies – play an important role in urban regeneration and residential growth strategies in Australia, the United Kingdom, Hong Kong and parts of the United States. Urban development agencies have a range of forms and functions, but typically lead the development of specified areas. They may be permanent or time-limited bodies. In some cases, they may have compulsory acquisition or planning powers, allowing them to amalgamate smaller landholdings and rezone the combined site.

The Australian Productivity Commission (APC), in its review of planning, zoning and development assessments, concluded that GLOs can play an important part in speeding up and de-risking development:

> Greenfield subdivision developments seem to proceed more 'smoothly' in areas where some development has already occurred. As such, there may be a role for GLOs as the first developer into new settlement areas. This would provide precedent planning decisions on which other developers could base their due diligence and ensure major 'lead in' infrastructure was in place. (APC, 2011a, p. 184)

Discussing VicUrban (now Places Victoria), the APC pointed to the usefulness of GLOs in initiating complex brownfield developments:

> VicUrban is a recent example of the increasing trend for GLO activities to be directed toward infill [brownfield] developments. In these developments, some of the projects are so complex and high risk that they are unable to attract private sector interest at least in the early stages of development. As a result, many GLOs work to reduce the complexity of projects (for example, by remedying issues such as fragmented land holdings … and 'derisk' development sites (for example, restore contaminated soil) to a level where it is feasible for private sector developers to subsequently complete projects. (p. 153)

Davison et al. (2012) cites other possible benefits from the involvement of UDAs in land development, including:

- the potential for UDAs, as the owners or regulators of the land, to attach conditions to its final use to achieve social objectives (eg, greater provision of lower-cost housing);
- greater scope to manage urban renewal, so that "processes of change proceed in a co-ordinated manner"; and
- an enhanced ability, as the owners of amalgamated or renewed land, to capture some of the uplift in land value that accrues from redevelopment for community use (pp. 87–88).

UDAs also play a role in bringing affordable housing to market in some Australian states, but their effectiveness appears to depend on the agencies having sufficient planning powers, independence and clear targets (Davison et al., 2012, pp. 88–89). Kelly's (2011b) review of "place-based development" concluded that

> [m]any of the most successful organisations have used temporary planning powers, owned or acquired substantial amounts of land, and combined public and private investment. (p. 20)

The Commission heard from its engagement meetings in Australia that some UDAs were pioneering the development of new housing typologies, such as smaller apartments and new design formats. These strategies were aimed at increasing housing choice. This innovation also sets a precedent (and gives confidence) for private sector developers to follow (ie, a "demonstration effect").

UDAs can undertake large-scale developments. This offers a number of benefits, including the ability to generate economies of scale that can drive down infrastructure and construction costs. Larger developments are also important to attract overseas developers who may be better able to innovate and operate at scale. The Hobsonville Land Company was able to attract successful tenders from AV Jennings to be its building partner because of the size of the development opportunities presented. AV Jennings is one of Australia's leading development companies, and had not previously operated in New Zealand. Growing the size of New Zealand construction firms, or attracting large firms to operate in New Zealand, is likely to require large-scale developments on large sites.

There have been several suggestions for UDAs in New Zealand.

- In 2006 a report commissioned by the Ministry for the Environment proposed creating both national and regional urban transformation corporations, to undertake urban regeneration, and demonstrate commercially viable, sustainable developments (SGS Economics & Planning, 2006).
- A 2008 discussion paper from an inter-agency Sustainable Urban Development Unit sought feedback on a development organisation to coordinate planning and investment, assemble land, and operate streamlined planning and consenting processes.
- The Urban Taskforce (2009), reporting to the Minister for Building and Construction, recommended creating "an Urban Development Agency model based on a set of clear partnering principles to deliver urban development projects" (p. 4). It said: "To accelerate both the quantity and quality of urban development, a tried and tested approach to complex urban development is needed. Urban development agency models are commonly used to bring all the parts of an important development package together in a consistent and integrated manner" (p. 3).

The Commission also noted the merits of this sort of collaborative approach to development in its *Housing affordability* inquiry (NZPC, 2012a).

F12.1 Urban development authorities can play an important role in de-risking development and bringing land to market.

Most submitters were positive about the role that a UDA could play in enabling residential development in our fastest-growing cities (subs. DR79, DR81, DR90, DR100, DR102, DR104, DR106, DR115, DR119, DR125, DR128, DR131).

Some submitters argued that it was important that a UDA gives effect to affordable housing goals, or the housing needs of Māori whānau (subs. DR91, DR91, DR124).

However many submitters expressed a preference for local (regional) UDAs, rather than a national UDA, including the New Zealand Property Council (sub. DR100), Waimakariri District Council (sub. DR108), Environment Canterbury (sub. DR110), the Greater Christchurch Urban Development Strategy Partnership (sub. DR112), and Christchurch City Council (sub. DR128). Only the Sustainability Society (a technical interest group of IPENZ, sub. DR137) was explicit in its preference for a national UDA model.

Porirua City Council (sub. DR88) and Bay of Plenty Regional Council (sub. DR89) did not consider that a UDA was necessary or workable in their district.

Auckland Council submitted against a national UDA, and instead urged support of Panuku Development Auckland, its own UDA vehicle. It said it did

> [n]ot support the establishment of a central government UDA in Auckland; but [did] support central government undertaking complementary activities and working alongside *Development Auckland* to enable the council's agency to achieve its objectives more quickly and deliver better outcomes for Auckland. …
>
> The council welcomes discussions with central government on an approach to using existing levers to support the council's activities via *Development Auckland*, and exploring options for how central government can best add and derive value in Auckland. (sub. DR135, pp. 6, 14)

This was a common view, with Christchurch City Council (CCC) submitting that "[a] top-down approach, that fails to consider the views of local people, has often been a criticism (and the undoing) of similar types of approaches overseas" (sub. DR128, p. 13).

F12.2 Submitters gave broad support for urban development authorities to lead urban regeneration projects that provide for residential development, but gave little support for one nationally established Authority.

In New Zealand's three largest cities, moves are already afoot to establish local UDAs.

Auckland

In May 2015 Auckland Council agreed to the creation of Panuku Development Auckland, a council controlled organisation (CCO) formed from the merger of two existing CCOs involved in developing property.

- Auckland Council Property Ltd undertook all property acquisitions and disposals for Auckland Council and Auckland Transport, managing about $900 million worth of assets. For example, it owns 90% of the property being developed in partnership with Todd Property into Ormiston Town Centre in Flat Bush.
- Waterfront Auckland managed 45 hectares of waterfront property that includes Wynyard Wharf, much of Wynyard Quarter, Westhaven Marina and part of Queens Wharf.

Panuku Development Auckland's purpose is to

> contribute to the implementation of the Auckland Plan and encourage economic development by facilitating urban redevelopment that optimises and integrates good public transport outcomes, efficient and sustainable infrastructure and quality public services and amenities. Panuku Development Auckland will manage council's non-service property portfolio and provide strategic advice on council's other property portfolios. It will recycle or redevelop sub-optimal or underutilised council assets and aim to achieve an overall balance of commercial and strategic outcomes. (Panuku Development Auckland, 2015)

Its website says that its objectives are to:

- *Facilitate redevelopment of urban locations.* Consistent with the urban form and infrastructure objectives of the Auckland Plan, Panuku Development Auckland will facilitate private sector, third sector, iwi and government investment and collaboration into the sustainable redevelopment of brownfield urban locations. It will co-ordinate provision of council's infrastructure and other investment in these locations.
- *Accommodate growth.* Panuku Development Auckland will contribute to accommodating residential and commercial growth through facilitating the quality redevelopment of urban locations with excellent public infrastructure and services. Redevelopment of the overall portfolio should offer a range of residential choices and price points to cater for diverse households.
- *Facilitate vibrant development.* Panuku Development Auckland will facilitate the creation of adaptive and resilient places that inspire wellbeing, promote health and safety and are fully accessible to disabled people and older adults. It will harness and incorporate the local community's unique identity, attributes and potential to create vibrant communities.
- *Waterfront development.* Consistent with the Waterfront Plan 2012, Panuku Development Auckland will continue to lead the development of the Auckland waterfront in a way that balances commercial and public good objectives, including high quality urban design.
- *Optimisation of council's property portfolio.* Panuku Development Auckland may facilitate quality redevelopment of underutilised council landholdings within current urban boundaries.
- *Contribute to the management of non-service properties.* Panuku Development Auckland will also manage council's non-service properties in partnership with the council group. (Panuku Development Auckland, 2015)

Reports from Auckland Council indicate that it will "manage an annual operating expenditure of $70 million per annum and $75 million revenue. It will also manage a capital budget of $430 million over 10 years" (Auckland Council, 2015d).

Wellington City

The Wellington City Council considers significant opportunities exist to redevelop and intensify a number of areas, including the central city and a number of identified suburban growth areas. The Council submitted that it was considering launching a land development agency as a CCO to redevelop areas in the centre of Wellington and various suburban growth areas.

Wellington City Council noted in its initial submission that it was

> considering establishing a land development agency to implement the economic growth initiatives proposed in the Long Term Plan and to deliver affordable housing. However the Council also needs to be able to use enhanced urban regeneration powers to acquire, assemble and develop land for affordable housing.
>
> Strategic land-use and masterplanning of developments and communities is a common approach in many overseas jurisdictions. Markets respond well to this as it is seen as value adding and provides investment certainty for governments, councils, developers, private partners, the public and potential land buyers. … this can provide certainty to the market and lead to private sector investment and growth in the local and national economy. …
>
> These sites [identified growth areas] are characterised by fragmented/multiple land ownership and a variety of land uses. Development visions are hard to realise due to their complex nature and the limited mechanisms available to actively bring about change. …
>
> The Council is consider[ing] launching a land development agency…Enhanced urban regeneration powers to acquire, assemble (and develop) land for affordable housing are required alongside this proposed Council CCO to make this happen. These powers could also be extended to apply to central government development agency, or a public private partnership. There would need to be strong controls around this development right. (Wellington City Council, sub. 21, pp. 12, 20, 50–51)

Christchurch

In Christchurch two nascent UDAs are being established.

In April 2015 CCC established Development Christchurch as a council controlled trading organisation, under the ownership of Christchurch City Holdings Ltd (CCHL). The Mayor of Christchurch said that the agency would "kick-start development within both central Christchurch and the suburbs and … provide this single point of entry for international investors" (CCC, 2015c). Development Christchurch Limited will be governed by a board nominated by CCHL and approved by the council. All projects it is involved in will be subject to council approval.

In July 2015 the Prime Minister announced the creation of Regenerate Christchurch, which will take over the rebuild of the central city from the Canterbury Earthquake Recovery Agency (CERA)'s Christchurch Central Development Unit (CCDU). This process is intended to help smooth the disestablishment of CERA. While Regenerate Christchurch will be established under ministerial control, it is proposed that over time control will be transitioned to CCC. Details on the functions, objectives and powers of Regenerate Christchurch are yet to be determined.

It is unclear how the two agencies will interact, although the Mayor of Christchurch has expressed support for Regenerate Christchurch.

F12.3 New Zealand's largest cities have local urban development authorities established or planned.

A national urban development authority would be unhelpful

In its draft report, the Commission discussed the option of establishing a national UDA to acquire, masterplan and tender for private partners to build large greenfield developments. This option has particular advantages in terms of enabling development at scale, and better infrastructure coordination. It also offered the possibility of allowing the uplift in land value from rezoning to be captured publicly to pay for infrastructure.

However, a national UDA is not recommended for a number of reasons.

- Given the speed with which local UDAs are being established, there is risk of a lack of coordination or rivalry between national and local development vehicles operating in a city. This would be counterproductive to the long-term positive relationship between central and local government which

will be necessary to overcome housing issues. There are also risks that this would dilute skills and resources, including capital.

- The approach would have funded infrastructure for greenfield development from value uplift, but this would undermine the incentive on infrastructure providers to establish more rational and efficient pricing and cost-recovery methodologies that ensure growth pays for itself and that locational choices incorporate the marginal costs of infrastructure.
- The model would have made greenfield land relatively cheaper to develop, which would bias growth towards the edge of cities. Local government should be given every opportunity to pursue the urban form it considers most desirable (including compact city models), providing this delivers sufficient development capacity for a range of housing typologies.
- With enough ready-to-build greenfield land to create competition in the market for land, the price of developable land can be brought down such that windfall gains from rezoning and infrastructure provision no longer accrue to landowners to the same degree as occurs currently. Reducing land prices will offset infrastructure costs. Where possible, solutions to enable a well-functioning market should be preferred, and recommendations for enabling this are discussed in sections 12.5 and 12.6.
- Holdout problems in assembling land are likely to be less significant in greenfield development than in already built-up areas.

The Commission acknowledges the submission from Auckland Council on the undesirability of having local and national UDAs operating in the same city. Rather than establishing a parallel UDA, central government should seek to support the activity of locally established UDAs.

F12.4 A nationally established urban development authority is likely to be counterproductive where councils have urban development vehicles.

Submitter views on the role and functions of urban development authorities

Councils are responsible for determining how local UDAs are governed, structured, and capitalised, and what the focus of their activities should be. Submitters had a range of views on the role, functions and powers that UDAs should have (Box 12.2).

Box 12.2 **Submitter views on the role and functions of urban development authorities**

The Auckland District Council of Social Services said that where UDAs had been successful in Australia, they are the equivalent of CCOs, have elected councillors on the board, operate transparently and consultatively, have social, heritage and environmental objectives that are as important as economic objectives, produce and retain affordable housing, and are well-resourced by city and state governments (sub. DR81)

Te Rūnanga o Ngāti Whātua said a UDA should focus on delivering housing for those in most need of housing, and work proactively with Māori entities to resolve Māori housing shortages (sub. DR91). The Mana Whenua Kaitiaki Forum (sub. DR124) made similar points.

The Ngāti Tamaoho Trust submitted that a UDA should only operate in brownfield sites with the consent of the local community, and focus primarily on affordable housing. It said the UDA should not have separate planning powers and should not be required to partner with the private sector (sub. DR136).

The Property Council submitted that a UDA should:

- have powers to purchase/agglomerate land;

- ensure the coordinated provision of development opportunities with infrastructure;
- have the ability to sell on parts to private developers; and
- provide credit markets with more confidence about the delivery and timescale for infrastructure provision, land aggregation, and the completion of regulatory processes (sub. DR100).

Tauranga City Council submitted that a UDA needed:

- a legislative framework for compulsory acquisition, as well as planning and rezoning powers;
- good capitalisation, including Crown backing through access to land, capital, or underwriting of debt; and
- clear objectives, and clear understanding of how profits would be used (sub. DR102).

Environment Canterbury submitted that a UDA should work collaboratively, and not have planning powers (sub. DR110).

The Greater Christchurch Urban Development Strategy Partnership submitted that a UDA should have a catalytic role, focusing on assembling land (including through compulsory acquisition as a last resort), masterplanning and getting sites development ready, and showcasing successful redevelopment models (sub. DR112).

Wellington City Council submitted that a UDA should have a strong charter and corporate structure, operate in accordance with overarching spatial planning documents, have broad powers to acquire land and gain regulatory approvals, and coordinate between local government and the private sector (sub. DR118).

The New Zealand Planning Institute emphasised the need for a UDA to operate collaboratively with local and central government and the private sector, and to be attuned to local circumstances (sub. DR125).

Christchurch City Council supported a model similar to English Partnerships, which had a focus on affordable housing, partnering with the private sector, and working collaboratively with the local community (sub. DR128).

The New Zealand Council for Infrastructure Development submitted that a UDA can develop land which might be uncommercial in the pursuit of public policy objectives, and build through periods of market downturn. It supported compulsory acquisition powers, providing they are exercised under the control of central government (sub. DR132).

The Institute of Surveyors also submitted that a public agency was needed to amalgamate land. They said it should operate independently from Council control, and have "special development area processes that could accelerate the planning and consenting processes" supported by legislation (sub. 74, p. 16).

A few common views emerge. UDAs:

- should have the ability to focus on affordable or social housing;
- need to operate collaboratively with local government, central government, communities, and the private sector;
- need to be well structured, well governed, and well capitalised; and
- would benefit from having regulatory powers, and in particular the power to compulsorily acquire land as a last resort to assemble sites.

Where local UDAs focus on delivering affordable housing, the Commission believes they should do so consistent with the findings in Chapter 7 (for example, through contributions of public land). However, they may benefit from additional regulatory and acquisition powers to support their activities.

12.4 Supporting local urban development authorities

The Commission agrees that local UDAs are most likely to be effective where they have the support of central government in undertaking their work.

The Housing Accords and Special Housing Areas Act 2013 (HASHA Act) has introduced common and streamlined approval processes for particular types of residential developments in declared areas. The Governor-General may designate "qualifying developments" and "special housing areas", where more permissive planning rules and streamlined consenting processes would apply. Most local authorities who discussed the HASHA Act were positive about it (eg, Auckland Council, sub. 71; Tauranga City Council, sub. 47). However, the HASHA Act will begin to expire in September 2016.

Support for local UDAs should build on the relationships that local and central government have developed through Housing Accords. This model of designated developments offers the potential for central and local government to agree on redevelopment projects that offer the potential to deliver significant volumes of housing, within which the UDA will operate with different powers and land use rules. This is similar to the models employed in Australia by Places Victoria and Economic Development Queensland.

R12.1 The Government should legislate to create a regime similar to Special Housing Areas whereby certain developments undertaken by local urban development authorities are designated by Order in Council as having the potential to deliver significant numbers of dwellings, and within which the urban development authority will operate with different powers and land use rules.

To be clear, UDAs should be able to operate outside of such 'designated developments', but would not have any special powers or streamlined planning and consenting requirements in doing so.

The HASHA Act defines a qualifying development in a special housing area as a development that will:

- be predominantly residential; that is, the primary purpose of the development is to supply dwellings and any non-residential activities provided for are ancillary to quality residential development (such as recreational, mixed use, retail, or town centre land uses);
- have dwellings and other buildings no higher than 6 storeys, and a maximum calculated height of 27 metres;
- contain not fewer than the prescribed minimum number of dwellings to be built; and
- contain not less than the prescribed percentage (if any) of affordable dwellings.

In the context of the urban development which it is expected UDAs will undertake, these requirements will be too limiting. In particular, the redevelopment of town centres will require higher buildings, and are likely to require facilitating uses that are not ancillary to residential activities, in order for redevelopment to be economic.

R12.2 The Government should provide for 'designated developments' undertaken by local urban development authorities to allow higher height and storey limits than in the Special Housing Areas regime, and to allow non-residential uses that may be necessary for the development to be economically viable.

Amalgamating land

In a 2006 paper for the Ministry for the Environment, R Neil Gray argued that the "land problem" in New Zealand was different to other countries:

> In the UK and US and Australia, urban regeneration is often proposed as a means of revitalising large tracts of derelict land (redundant docklands, factories etc). By contrast, New Zealand (particularly Auckland) has few such areas. Nor does New Zealand have large tracts of contiguous Crown land within its urban borders, or tracts of leasehold land. The problem in the New Zealand context is how to amalgamate small parcels of valuable urban land, into larger blocks that permit meaningful development. (p. 5)

Auckland is not entirely without such large contiguous sites, but they are rare. Many of the largest developments that are underway or currently being completed have involved repurposing brownfield sites, such as Hobsonville, Stonefields, and Three Kings. However, it is notable in each case that little or no amalgamation was integral to the project, with sites owned by either the Crown or Winstone.

Many submitters considered land amalgamation to be a problem:

> A public agency with the ability to aggregate land would be beneficial. Such an agency would need access to considerable sums of money to acquire and hold land, before onselling to an interested developer. The ability of an agency to acquire large amounts of surplus land from government agencies such as Housing New Zealand, KiwiRail and the Ministry of Education would greatly assist in putting larger land parcels to its best use, rather than being fragmented into smaller land parcels and developed in an ad-hoc manner. (Allison Tindale, sub. 8, p. 26)

> A particularly strong emphasis on brownfield land with many landowners creates problems of land assembly. There is also the problem that those land owners new to the development process have raised expectations of the value of their land. The coordination and cost allocation for the provision of infrastructure also increase significantly with multiple owners. (Selwyn District Council, sub. 45, p. 11)

> Land fragmentation can be a barrier to cost effective, quality development in urban areas (not just brownfield) and the Agency [New Zealand Transport Agency] would support initiatives that help facilitate urban intensification in these areas. One example could be establishing an appropriate public body or entity that can aggregate multiple parcels of land to undertake desirable urban redevelopment. (NZTA, sub. 73, p. 12)

In its report on *Housing affordability*, the Commission noted the desirability of "bringing significant tracts of both greenfield and brownfield land to the market in Auckland and Christchurch" (2012a, p. 102). Significant scale economies can be achieved in land development and building, but this often requires the aggregation of smaller parcels of land. The Ministry of Business, Innovation and Employment (MBIE) has also identified fragmented land ownership as a constraint on residential housing supply, limiting the opportunity for large-scale development opportunities (MBIE, 2014d). The Urban Taskforce report (2009) identified "difficulty in aggregating significant areas of residentially zoned land" as a barrier to high-quality, larger-scale urban developments (p. 17). The Commission concluded in its draft report that a failure in coordination was preventing many large residential developments.

In its draft report the Commission discussed at length the economics of land assembly, and the case for compulsory acquisition powers to address housing shortages. That discussion can be found in Appendix B. The Commission came to a number of conclusions around the use of acquisition powers.

- Holdouts in land assembly projects impose a supply-side externality, with the direct implication that government can correct the allocative inefficiency through compulsory acquisition (known as "eminent domain" in the United States) (Miceli, 2011).
- Assembly problems are more significant in the centre of cities, because lot sizes are generally smaller and ownership more dispersed than greenfield land on the fringe of cities. As a result, holdout problems in urban areas bias development towards the urban fringe.
- Private property rights serve essential economic purposes. But they are not absolute, and can be restricted in accordance with law where it is in the public interest.

- Circumstances exist in which the economic and social harms that result from a housing shortage should be considered sufficient to justify the compulsory acquisition of land for the construction of housing.
- The housing shortage produces significant social and economic harms, as outlined in Chapter 3 and above in Section 12.1.
- Most countries provide power for the government to acquire property for public purposes, with compensation.
- Compulsory acquisition powers can be effective without being exercised, by facilitating negotiated acquisitions. These agreements are usually preferable to compulsory acquisition to both the public agency and the landowner, although they still involve coercion.
- A range of theoretical alternatives are available in the economic literature to overcome holdout problems. Few mechanisms ensure only efficient developments proceed and owners are fairly compensated, and where they do they rely on unreasonable assumptions (eg, that government can correctly predict the likelihood of developers purchasing land at given prices).
- Any proposal for compulsory acquisition of Māori land would face sensitive Treaty issues. Past legislation on compulsory acquisition has contained explicitly discriminatory provisions for taking Māori land (Marr, 1997). The Waitangi Tribunal has consistently argued that the compulsory acquisition of Māori land for public works is almost always a breach of the Treaty of Waitangi (see, for example, Wai 863). Any regime to compulsorily acquire land for housing developments needs to recognise both the associated risks and positive partnership opportunities.

The power of local authorities to acquire land for housing is unclear

Compulsory acquisition is provided for in a number of New Zealand statutes, based around the Public Works Act 1981.

- In New Zealand, the Public Works Act 1981 gives the Minister of Land the "power to acquire any land, required for any Government work" (s 16 (1)).[55] Government work is "a work or an intended work that is to be constructed, undertaken, established, managed, operated, or maintained by or under the control of the Crown or any Minister of the Crown for any public purpose", including any work that the Crown is authorised to undertake by any other Act. Local authorities are similarly empowered to acquire land for local works. Local work means a work constructed or intended to be constructed by or under the control of a local authority, or for the time being under the control of a local authority. Taking of land wholly for private purposes is not authorised (see *Bartrum v Manurewa Borough* [1962] NZLR 21).
- The Local Government Act 2002 authorises local authorities to compulsorily acquire land that "is necessary or convenient for the purposes of, or in connection with, any public work that the local authority was empowered to undertake immediately before 1 July 2003" (s 189). At that time, local authorities had the explicit power to "undertake and carry out urban renewal in the district" (s 644B of the Local Government Act 1974).
- The Canterbury Earthquake Recovery Act 2011 provides the Minister with the power to acquire land, but imposes a narrower compensations regime than would be available under the Public Works Act 1981. These powers have been used to amalgamate sites required for the East Frame of central Christchurch. The East Frame is intended to deliver about 750 dwellings on approximately 13 hectares, as well as retail and recreation facilities. The Crown had to acquire 92 properties for the East Frame, but acquired most by agreement, with 9 being compulsorily acquired (Brownlee, 2013).
- Section 5 of the Housing Act 1955 gives the Governor-General power to use the Public Works Act 1981 to take land required for "State housing purposes"; the taking of Māori land under this provision requires the consent of the Minister of Māori Affairs. Section 2 defines State housing purposes as

[55] The courts have held that land was "required" if its acquisition was, viewed objectively, essential or reasonably necessary rather than, in some general sense, desired (*Seaton v Minister for Land Information* [SC 44/2012 [2013]).

> the erection, acquisition, or holding of dwellings and ancillary commercial buildings by the Crown under this Act for disposal by way of sale, lease, or tenancy; and includes the acquisition of land by the Crown—
>
> (a) as sites for dwellings and ancillary commercial buildings:
>
> (b) for schemes of development and subdivision into sites for dwellings:
>
> (c) for motorways, roads, streets, access ways, service lanes, reserves, pumping stations, drainage and water works, river and flood protection works, and other works upon or for the benefit of the land so acquired or the occupiers thereof.

The application of existing compulsory acquisition powers to situations of urban development is unclear (Sustainable Urban Development Unit, 2008). There is a great deal of uncertainty about the ability of local government to compulsorily acquire land for urban regeneration or housing. The powers under the Local Government Act 2002 appear to be seldom, if ever used, so their application is uncertain, particularly given the unusual construction of the power.

F12.5 The ability of local authorities to compulsorily acquire land for housing or urban regeneration is unclear.

Compulsory acquisition powers are a significant limit on private property rights, which should not be made available lightly. Where they are available, they should be clear, exercised with restraint, and subject to appropriate restraining institutional structures.

The Commission's view is that the activity of locally established UDAs should be supported by the availability of compulsory acquisition powers in some circumstances, and that such powers are justifiable to overcome holdout problems in urban regeneration given the wider public interest in access to housing.

The powers should be modelled around the existing provisions of the Public Works Act 1981, which contains a well-established process and a number of safeguards for controlling the use of acquisition powers by the Crown, local authorities, network utilities or River Boards. These safeguards include:

- statutory processes to be followed, including an obligation to first negotiate in good faith to acquire the land;
- the right to object to compulsory acquisition to the Environment Court, which enquires into whether alternatives have been considered, and decides whether the taking is "fair, sound and reasonably necessary" – these findings are binding on the Crown or local authority; and appeals from the Environment Court are available on questions of law;
- if the amount of compensation cannot be agreed, then the amount of compensation will be determined by the Land Valuation Tribunal; and
- the High Court has inherent powers of judicial review over a Minister or local authority's decisions to acquire land, with further appeals possible.

R12.3 The Government should legislate to grant compulsory acquisition powers to local urban development authorities for 'designated developments', subject to the normal processes, compensation and protections of the Public Works Act 1981.

However, the "offer back" provisions of the Public Works Act 1981 will need to be limited to situations where the land is no longer needed for the development. It would be impractical to take land, redevelop it significantly, and be required to offer the land back to the original owner.

R12.4 The Government should adjust the 'offer back' provisions of the Public Works Act 1981 for use by urban development authorities, so that they are not obliged to offer back land that has been significantly redeveloped.

Planning and consenting processes

As organisations wholly owned by local councils, and needing to work in close collaboration with those councils, the Commission does not see a good case for granting local UDAs with planning powers of their own. However, councils and developers generally considered the expedited planning processes of HASHA were very positive.

Special Housing Areas operate with streamlined consenting and plan change timeframes, and with notification limited to immediate neighbours. This model should also apply to 'designated developments' undertaken by UDAs. Councils or UDAs will have other opportunities to consult with communities about redevelopment proposals, outside of consenting.

R12.5 The Government should provide for 'designated developments' undertaken by local urban development authorities to operate under streamlined planning and consenting processes. This should include restricting public notification.

Other support for local urban development authorities

Government has a range of ways in which it can support the activity of local UDAs, including through making Crown land available (see Chapter 7), partnering in specific projects, and ensuring that Housing New Zealand cooperates where relevant.

R12.6 The Government should look at other opportunities to support the activity of local urban development authorities to deliver on councils' goals for urban redevelopment, including through making Crown land available, partnering in specific projects, and ensuring that Housing New Zealand cooperates where relevant.

Having put in place a regime to support councils in our largest cities to deliver on their aspirations for their future development, Government should also introduce measures to ensure that where they fail to deliver sufficient capacity to meet demand for housing, that such land is made available.

12.5 Ensuring that development capacity is sufficient to meet demand

This chapter has argued that central government should be supportive of the vision that New Zealand cities have for their future. But it has also recognised that, in practice, cities facing the greatest pressure for new housing have found it difficult to provide adequate capacity. Pursuit of a desired urban form should not come at the expense of providing adequate capacity for housing in a range of typologies and price points; where it does, central government should be prepared to intervene to ensure sufficient land for housing is made available.

In the course of the Commission's inquiry into *Housing affordability* (2012a), the Reserve Bank submitted that

> [t]he key supply factors appear to be the availability and price of land for residential purposes and construction costs. The Resource Management Act, and the way it is applied by local councils, may be playing a role. One solution that is often advanced regarding land prices is for metropolitan planning agencies to ease their urban limits and, more generally, to ensure that residential zoning practices are more directly responsive to market price signals. This will help ensure that land is used for the most economically valuable purposes, as revealed by prices. (sub. 37, p. 7)

The remainder of this chapter outlines a proposal to enable this, drawing on a recent paper from the New Zealand Institute of Economic Research (2015b) on how land prices can help guide land use regulation.

What is sufficient land for housing?

This report has argued that approaches that allocate land based on forecast household and population growth are unlikely to ensure that sufficient land for housing is made available. Forecasts are slow to adapt, they can be wrong, and demand is not only a function of household growth but also income growth and changing preferences. Further, this approach fails to generate competition in the market for land, with continuing escalation in land and house prices. Councils implicitly recognise the need to maintain some reserve capacity, through their commitments to having several years' worth of land "ready to go". But such approaches ration or allocate land based on assumptions about how much land will be required, rather than any market signals about how much land is demanded, or what the best use of land is. There are clear difficulties in establishing whether or not a council is in fact providing adequate land based on this approach, as is clear from the considerable debate about the proposed Auckland Unitary Plan.

Cheshire and Sheppard (2005) have argued that planning systems (like the New Zealand system) fail to take account of price signals about demand for land:

> [T]he allocation of land supply for each urban purpose by *fiat* quite independently of price has resulted over time in the emergence of very substantial discontinuities for adjoining parcels of land. This is because, although the total supply of land for each category of use in each locality is allocated independently of price, the market then allocates the determined supply of land for each use through the price mechanism to competing occupiers or developers. These price discontinuities, therefore, reflect the current expected degree of supply constraint on land for each type of planned use in each locality. So they provide a flexible price signal which will vary both over time and between cities yielding information about the relative scarcity of land for specific uses at the particular location and time. (p. 649)

Every city has an effective barrier between land that is available and able to be developed for housing, and land that is not (which may correspond to an urban limit, or may correspond to the extent of bulk infrastructure servicing). Discontinuities in the price of land on either side of this barrier represent demand for land for housing, and expectations about its future value or scarcity, in the face of rationing of space (either by the planning system or by the lack of infrastructure provision).

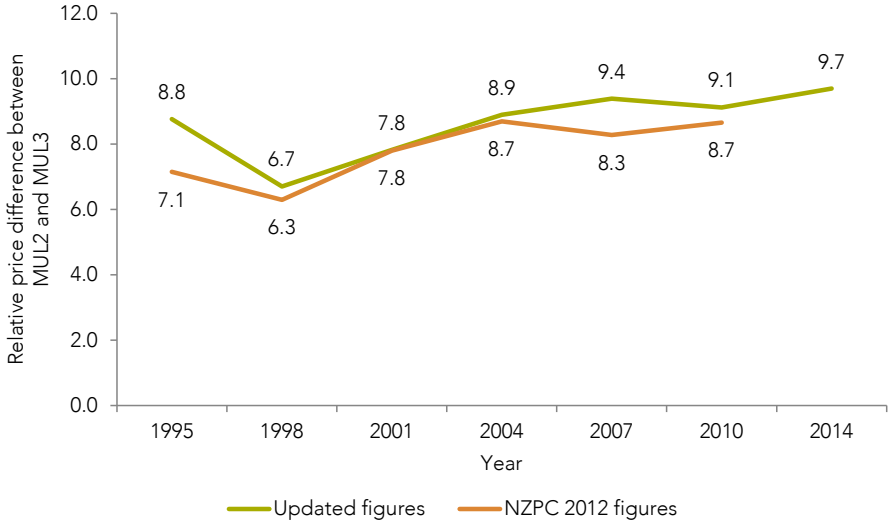
F12.6 Large differences between the price of developable and non-developable land reflect demand for urban uses that are prevented by the planning system or by a lack of growth-enabling infrastructure.

The effect of the MUL in Auckland

A series of studies (Grimes & Liang, 2009; NZPC 2012a; Zheng, 2013) have demonstrated the effect of Auckland's MUL on land prices. Although each has a different methodology, all show a discontinuity of price that indicates that the planning system is not responding sufficiently to the demand for land for housing.

The Commission has used the latest land value data in Auckland from 2014 to update its 2012 research, producing a series that estimates the impact of the Auckland MUL on residential land prices (Figure 12.2). More information on the methodology can be found in Appendix C.

Figure 12.2 Ratio of residential land prices inside the MUL against land prices outside the MUL



Source: NZPC, 2012a; Productivity Commission analysis of Quotable Value data.

Notes:

1. Estimates are based on Huber's robust regression with the tuning parameter equal to 4.5.

This graph shows that residential land inside the MUL is almost 10 times more expensive than land outside the MUL, up from over 6 times in 1998 and 7.8 times in 2001.

F12.7 Discontinuities of price between land inside and outside the Auckland Metropolitan Urban Limit continue to grow.

As argued elsewhere in this report, it would be desirable for the planning system to explicitly take account of price signals. The starting point for doing this is better and more accessible information about prices.

Sources of price information

Public access to information about housing and the housing market is constrained by current business arrangements between local authorities and the state-owned enterprise Quotable Value (QV).

Information on property is sold by local authorities to QV, which then aggregates the data and sells raw or processed information to individuals or firms. Most local authorities also contract QV to assess property valuations for rating purposes in their areas and to maintain District Valuation Rolls (DVRs).

These DVRs contain a range of information, including assessed values, the age and size of buildings, land and floor area, and the assessed highest and best use of the land. The information in a DVR is of considerable general use to researchers, government departments, and the wider economy. In the course of this inquiry, the Commission was assisted by access to the DVRs of two large cities. The Office of the Valuer-General receives DVRs from local councils for the purposes of audit, but does not keep them or maintain a national roll (although it has been required to in the past).

Although the prices charged by QV for access to individual data items (eg, information on a particular property) are not high, some commentators have argued that the prices for larger datasets required for detailed analysis can be prohibitive (Schiff, 2015). The lack of ready public access to property information, which is largely sourced from local authorities, seems to sit uneasily with the spirit of the Official Information Act 1982, the Local Government Official Information and Meetings Act 1987 and the Government's publicly stated commitment to actively release "high-value public data" to

> enable the private and community sectors to use it to grow the economy, strengthen our social and cultural fabric, and sustain our environment. We release it to encourage business and community involvement in government decision-making. (New Zealand Government, 2011)

In their submissions, the Property Council and Wellington City Council supported making this information more publicly available, and Wellington City Council also sought better access to data held by Land Information New Zealand. Federated Farmers said this matter was "better left to the private sector" (sub. DR120, p. 9). The Commission considers considerable public benefit would be gained from making the information more widely available.

R12.7 Land Information New Zealand should provide wider public access to information in District Valuation Rolls and property sales data.

Monitoring land price differentials

Using this data to inform land use regulation requires more work. Over time, price differentials for land within cities could inform decisions about zoning; the relative needs for residential, commercial and industrial land; the location of public services; and the desirability of different land use rules within existing urban areas (see Chapter 11).

However, given present housing challenges, the starting point should be to monitor whether a city has sufficient residential capacity. The best way of determining whether adequate land is available to meet demand for housing is through monitoring the relative price of developable (ready-to-build) land, and non-developable land at the edge of a city.

Officials should develop a process to monitor and report on these relative land prices. This process will require consistent definitions about the readiness of land for building, as recommended in Chapter 8. But this will require access to data described above, particularly to develop an index that is more frequent than the 3-yearly rating revaluations. This sort of index can be constructed in a number of ways. What is important is that the methodology developed is transparent and reflects the discontinuities of price between developable and non-developable land.

R12.8 The Government should develop a process to regularly monitor and report on the relative prices or assessed values of developable and non-developable land in our fastest growing cities.

Triggers for land release

Knaap and Hopkins (2001) argue that where cities have urban growth boundaries, too much emphasis is placed on having sufficient land over a given time period, and too little emphasis on the circumstances in which an urban growth boundary should change in response to how fast it is developed. They argue that event-driven triggers for land release, based on the actual use of land set aside for future growth, can be a better approach to managing an urban growth boundary:

> [R]ecent advances in land information systems have made event-driven systems a viable approach to urban growth management and UGB [urban growth boundary] expansion. UGBs are likely to work better if expansions are triggered when the supply – or the price – of land reaches some critical level. (p. 325)

In Auckland, the Rural Urban Boundary will define the urban extent of Auckland to 2040. Greenfield land will be released "in an orderly, sequenced way" (Auckland Council, 2012b, para 533). Auckland Council's current plan for releasing future land is based around time-driven releases. Its Draft Future Urban Land Supply Strategy identifies

> a programme to sequence this [future urban] land over 30 years. … The timeframe is split into three decades, and each decade into five year intervals. Distributing the greenfield areas over this timeframe enables them to be proactively planned in an orderly and cost efficient way, ensuring the areas are 'ready to go' with the required bulk infrastructure and able to deliver the quality urban outcomes anticipated in the Auckland Plan. The sequencing also accounts for the development capacity needed to accommodate greenfield growth. (Auckland Council, 2015e, pp. 3, 6).

The areas proposed to be made available for development, in each five-year period, are outlined in Table 12.1.

Table 12.1 Auckland Council's Draft Future Urban Land Supply Strategy

Time period	Areas to be developed	Estimated dwelling capacity	Estimated infrastructure costs
2012–2016	Special Housing Areas in the North-West and South of Auckland	9 000 – 12 000	$2.8 billion total • Transport $1.4 billion • Wastewater $450 million • Water $500 million • Other $400 million
2017–2021	Paerata and Whenuapai	11 100 – 13 100	
2022–2026	Pukekohe, Kumeu-Huapai Riverhead, Redhills, Warkworth North	17 500 – 21 400	$7.1 billion total • Transport $3.8 billion • Wastewater $1.35 billion • Water $1.34 billion • Other $600 million
2027–2031	Opaheke – Drury, Takanini, Warkworth South	12 800 – 18 300	
2032–2036	Karaka, Silverdale-Dairy Flat, Wainui	31 600 – 40 800	$3.8 billion total • Transport $1.5 billion • Wastewater $400 million • Water $400 million • Other $1.5 billion.

Source: Auckland Council, 2015e.

This draft strategy has recently been the subject of consultation by Auckland Council. The Commission has not independently reviewed the Council's estimates of dwelling capacity or infrastructure costs.

This sort of time-driven approach to releasing land is predictable, providing relative certainty to local government, infrastructure providers, developers and landowners about when land will be released, allowing them to plan for it. But Knaap and Hopkins (2001) argue that this approach is also relatively inflexible in the face of changing demand, particularly if those changes are unexpected.

Rather than time-driven releases of land, as in the case of Auckland Council's Draft Future Urban Land Supply Strategy, Knaap and Hopkins argue that cities should plan to have a volume of land available for development, and release it when that inventory of developable land is reduced to a certain threshold, rather than on a regular time-driven basis. As a result, where land is developed faster than anticipated and the stock is sufficiently depleted more can be released, and releases will be more frequent; when land is developed slower than anticipated, then expansions of the city will be less frequent. The stock of available land never falls below a set level, because at that point the stock will be replenished.

Through this approach, the expansion of a city can be much more responsive to demand, and will lead to more stable prices. However, this responsiveness comes at the cost of certainty about when land will be released. The authors also note that there are administrative challenges. The volume of developable land must be regularly monitored; and land must be ready and available to be released to replenish the inventory.

Challenges to planning for releasing new greenfield land are undeniable, when the timing of that release is uncertain. But event-driven triggers to release land have significant advantages in terms of being responsive to demand, and for the stability of land prices.

F12.8 Event-driven triggers to release land will be significantly more responsive to demand for land than time-driven approaches. This will contribute to more stable land prices for developable land.

Using price signals to trigger land release

Knaap and Hopkins (2001) propose that releases of land would be triggered when the volume of developable land drops to a certain threshold. An alternative would be to trigger releases of land when discontinuities of price between developable and non-developable land reach a certain threshold. This approach would mean that releases of land take advantage of price signals about effective demand for land for housing.

In particular, for councils seeking to pursue compact urban forms, it would send signals about how effective they are in providing sufficient economically feasible development capacity for intensification within existing urban areas. Discontinuities of price at the edge of a city reflect demand for additional *space* for residents. To a large extent, development capacity in the centre of the city (up) and the edge of the city (out) are substitutable. Homeowners make trade-offs in their housing choices taking into account dwelling price, size, transport costs etc. Where councils can successfully provide that additional space in the centre of cities, then this will reduce discontinuities of price at the fringe of the city.[56]

This approach would reduce the importance placed on forecasting population growth, and estimating how many additional dwellings could be accommodated by particular changes to land use rules; rather, effective demand as reflected through prices would indicate whether sufficient capacity had been provided to meet the demand for housing.

A credible commitment to releasing and servicing additional greenfield land, in the event that discontinuities of price between developable and non-developable land reach a certain threshold, would have a number of benefits.

Such a commitment would assist councils to confront the trade-offs required to deliver on their preferred urban form. Clear evidence exists that the Proposed Auckland Unitary Plan will not deliver sufficient increased density to meet the objectives of the Auckland Plan. Claims that Auckland has sufficient greenfield land for a number of years into the future are meaningless in this context; in total, Auckland lacks sufficient development capacity for a functioning market to meet demand for residential space in the city as a whole.

The knowledge that a failure to upzone in already built-up areas of the city will lead to the release of greenfield land will place greater impetus on councils to create land use rules that will give effect to their urban vision of a compact city; or else the land necessary to house a growing population will automatically be released on the fringe of the city.

F12.9 Price signals provide an indication of whether councils are successfully creating sufficient economically feasible capacity for more dwellings within their cities. Where councils are pursuing denser urban forms, price signals provide an indication of whether their land use rules facilitate this in practice.

F12.10 A commitment to release additional land where price discontinuities reach a certain threshold would assist councils in confronting the trade-offs necessary to give effect to their visions for a more compact urban form.

Chapter 4 outlines that when land prices are escalating, owners can be encouraged to hold land rather than develop it. A credible commitment to stop price discontinuities would also significantly change the

[56] And, to the extent that upzoning in urban areas does not fully feed into reduced price discontinuities on the edge of cities, then these discontinuities show a continuing unmet demand for space of a particular type; ie a residual demand for greenfield-style housing.

incentives facing land bankers. It would no longer be rational to hold land undeveloped or underdeveloped in the expectation of future price increases. The first and most immediate effect of a policy to release land whenever sufficient discontinuities of land price were reached would be for land bankers to sell or develop land, providing that they believed the mechanism would preclude future land price inflation (ie, they believed there would be follow-through on releasing the land).

F12.11 A credible commitment to releasing additional greenfield land when price discontinuities reach a given threshold would promote the release of land currently being held in expectation of future price increases.

12.6 How could price-driven land release operate in New Zealand cities?

The role of central government

A major theme of this report has been a divergence between national and local interests in the benefits of facilitating additional growth in our largest and fastest-growing cities. Where cities fail to meet demand for land for housing, there are a range of negative social and economic consequences. Managing these consequences is in large part the responsibility of central government; for example, it is government that ultimately has to manage the risks of macroeconomic instability, make larger payments through the accommodation supplement, or identify and pay health costs that arise from illness associated with overcrowding. It is the nation that misses out on the productivity benefits of agglomeration.

Theories about the level of government where decisions should be taken emphasise that the jurisdiction of decision making should correspond to the jurisdiction of effects (NZPC, 2013; Oates, 1999). In *Towards better local regulation*, the Commission said that "[w]hen the costs and benefits of a particular outcome spill over outside local boundaries, then decision makers that cover the spillover should have control over the regulatory policy" (2013, p. 120). Chapter 3 makes the case that the distribution of agglomeration costs and benefits can lead local government to prefer less or slower growth than is in the national interests.

The Resource Management Act 1991 (RMA) is a highly devolved framework. In a case where the benefits are national and the costs local, one solution would be to shift the locus of decision making to a national level. Central government is better able to trade off the interests of existing homeowners against renters, those in temporary or other irregular accommodation, and those seeking to purchase a first home, in part because of its broader democratic mandate.

Chapter 3 discusses research by Hsieh and Moretti (2015) which found that if the US cities with the most regulated housing supply had those constraints lowered to the level of the median city, Gross Domestic Product (GDP) could increase by 9.5%. The authors comment:

> In principle, one possible way to minimize the negative externality created by housing supply constraints in high TFP [total factor productivity] cities would be for the federal government to constrain U.S. municipalities' ability to set land use regulations. Currently, municipalities set land use regulations in almost complete autonomy since the effect of such regulations have long been thought as only local. But if such policies have meaningful nationwide effects, then the adoption of federal standard intended to limit negative externalities may be in the aggregate interest. (p. 35)

Kerr, Claridge and Milicich (1998) argue that while the legal/institutional structure of devolution in the RMA is basically sound, effective devolution requires careful attention to the relationship between central and local government, as well as the location of decision making. They offer a number of suggestions for how this can work better, including:

- *Clarify responsibilities.* Chapter 11 notes the need to clarify the place of housing and urban environments in the RMA. There may also be insufficient guidance around the objectives or outcomes that central government seeks to achieve through devolution:

> Problems can arise when central government intends local government to make decisions but does not make this clear. Where it does want to influence local government, it should provide sufficient guidance. Lack of clarity over responsibilities leads to situations where local government does not feel empowered, and neither local or central government regards itself as fully accountable. (Kerr, Claridge & Milicich, 1998, p. 44)

- *Improve formal and informal contracts between central and local government.* The HASHA Act is a clear attempt at addressing this. Chapter 11 also discusses the role that a proposed National Policy Statement on urban development could play in setting expectations. But relationships matter too:

> Attention needs to be paid to the incentives of each level of government to cooperate with the other and meet their needs … One aspect of the contract is the formal, written specification of expected outputs, monitoring responsibilities and rewards. Perhaps an equally, and under-utilised component of contracts is the informal contract that arises through long term personal relationships, corporate culture and moral, trust and concern for reputation. (Kerr, Claridge & Milicich, 1998, p. 44)

- *Reduce duplication of objective information and technical skills.* This report considers councils have opportunities to adopt better rules based on a full understanding of their costs and benefits (Chapter 5), as well as processes that make better use of coordinated information and skills in planning large, fast-growing cities (Chapter 11).

- *Strengthen the political accountability of local government.* This divergence between local and national interests in the growth of cities can be partly explained by the political economy of local planning. This report argues that local government should prefer more growth than it appears to, and that this is caused by local democratic processes that prioritise the views of those who see more cost to growth locally, and do not adequately take account of those who see more benefit locally. Addressing those problems could go a considerable way to closing the "wedge":

> Any improvements in the local political process will enhance the benefits of devolution. In some cases central government may decide that the poor political accountability of local government … makes it inappropriate for them to take certain types of decision. (Kerr, Claridge & Milicich, 1998, p. 45)

In its inquiry into *International freight transport services*, the Commission found that

> [c]entral government plays an important role in providing direction on issues that involve balancing local values with regional or national benefits. Without clear signals from central government, national benefits and costs may be assigned a lower priority during the planning and consent process – resulting in a potential reduction in the overall wellbeing of society. (2012b, p. 151)

This undervaluing of national benefits can be seen in local decisions about the availability of land for housing.

Setting a trigger threshold

Government is best placed to set expectations around what is an unacceptable provision of development capacity for housing. It is central government that bears the residual risk from a failure to provide sufficient residential capacity to meet demand.

For these reasons, government is best placed to determine what level of land price differential would be unacceptable such that a release of greenfield land is triggered. At present it is not possible to say what ratio of developable land price to non-developable land price is the 'correct' ratio based on current information; this should be done once regular monitoring of relative land prices is established. However, it would be reasonable to expect that the threshold would be lower than the current land price differentials that exist in Auckland.

A government announcement that it intends to set a price differential threshold, beyond which it will act to make additional greenfield land available, is, by itself, likely to change the incentives facing owners who are holding land in Auckland in expectation of future price increases.

The role of ministers

Breaking expectations around future land price inflation is critical to improving the supply of land for housing. This requires:

- clarity about the point at which prices are too high; that is, certainty about the price ratio trigger point; and
- a credible belief on the part of landowners and developers that action will be taken to release and service additional greenfield land at the point the trigger is reached.

The decision about the level at which the ratio should be set is complex. It involves trading off national housing outcomes against local democratic decisions about urban development.

In its *Regulatory institutions and practices* report, the Commission found that ministerial decision making in regulatory regimes is likely to be appropriate where the decisions involve

- significant value judgments, where trade-offs are not readily amenable to analysis; or
- significant fiscal implications, or which are integral to a government's economic strategy. (2014, p. 270)

Decisions about the level at which the price ratio will trigger action clearly meet the first – and arguably, both – of these criteria. Ministers should determine what level of land price inflation is delivering negative housing outcomes such that intervention is needed by setting a transparent price ratio trigger point. This is similar to the Reserve Bank's Policy Targets Agreement.

However, the desirability of certainty that the trigger will be acted on suggests that decisions about whether additional greenfield land will be released should not be discretionary, but should be relatively automatic once the trigger is reached. One of the benefits of this approach is depoliticising decisions about whether enough residential space will be made available, with the focus instead on how it will be made available.

What happens when the threshold is reached?

Knaap and Hopkins (2001) point to the need for several classes of land in reserve to be released, because of the uncertainty about when releases will take place:

- *lead-time inventory* to accommodate growth between a decision to release new land and the land becoming ready to develop;
- *safety-stock inventory* in case growth is faster than expected; and
- *market-factor inventory*, which is needed to provide consumer choice and prevent monopoly pricing.

As illustrated above, New Zealand urban councils have a clear idea about where future greenfield growth will be accommodated. In the case of Auckland, the council's proposed schedule for releasing new greenfield land is described in the Draft Future Urban Land Supply Strategy (Auckland Council, 2015e). Once a price differential threshold is reached, the next tranche of greenfield land identified for release in the Strategy will be brought forward and made available early.

In practice, this would involve early discussions between central government and the council in question about what areas are best suited to accelerated release. The Housing Accord and Auckland Transport Alignment Project provide a good basis for central and local government to work together to address these issues. The Commission's 2013 report *Towards better local regulation* also outlines institutional mechanisms that would support this relationship.

But central government would also need powers to ensure that plan changes could be effected. This would require the development or confirmation of a structure plan for the area in question, the ability to rezone, and providing for infrastructure connection to ensure that land is ready to build.

Infrastructure provision

Infrastructure provision in greenfield areas brought forward for early release would be the most significant challenge. In the case of Auckland the costs indicated in the Draft Future Urban Supply Strategy are significant. The Strategy describes some of the infrastructure challenges. Three examples are noted below (Auckland Council, 2015e).

- In Paerata and Pukekohe the bulk water network is adequate to cater to growth, and little stormwater investment is required. However, the Strategy indicates that significant investment in the wastewater and transport networks would be required, and suggests a new rail station at Paerata and electrification of the line to Pukekohe.
- Growth areas in the northwest (Whenuapai-Redhills, and Kumeu-Huapai and Riverhead) are constrained by wastewater capacity that will be addressed by the Northern Interceptor project planned for completion in two stages, at 2021 and 2028. The Strategy also indicates a need for investment in public transport, such as a busway to service these areas.
- Warkworth would require upgrades to water and wastewater connections, and upgrades to the Snells Beach Wastewater Treatment Plant. The Strategy also indicates that transport will remain constrained until the completion of the Puhoi-Wellsford upgrade in about 2022.

Bringing forward greenfield growth areas will require infrastructure providers to bring forward a number of capital projects, and finding associated financing. Watercare's capital investment profile indicates that it intends to spend 40% more in the period 2026–2035 than in the decade before it. This indicates there will be opportunities to bring some projects forward. This report has argued that significant opportunities exist to improve Watercare's cost-recovery practices, and to introduce demand-management charges in the transport network. Both opportunities will alleviate infrastructure constraints.

Ultimately bringing forward infrastructure will require debt financing, recovered through the use of rates, development contributions and growth charges. Requiring infrastructure providers to bring forward capital investments to service greenfield land will encourage those providers to introduce more rational cost-recovery practices and the use of targeted rates as recommended in Chapters 8 and 9. Better pricing of the cost of growth, and the more effective use of development contributions and targeted rates are an important component of a coherent response.

Additional Crown funding for servicing greenfield areas that are brought forward would create a moral hazard. Instead, forcing providers (including the council) to face the costs of enabling new greenfield sites that are brought forward will sharpen their incentive to proactively make sufficient capacity available in already serviced areas, and price the necessary infrastructure appropriately.

The trigger will also allow a council to have a different sort of conversation with its community, based around *how* capacity for growth will be provided for and funded, rather than *whether* it will be provided for. The trade-offs that Auckland Council finds difficult to confront will be unavoidable.

Figure 12.3 summarises how a price-driven trigger to release additional greenfield land might work.

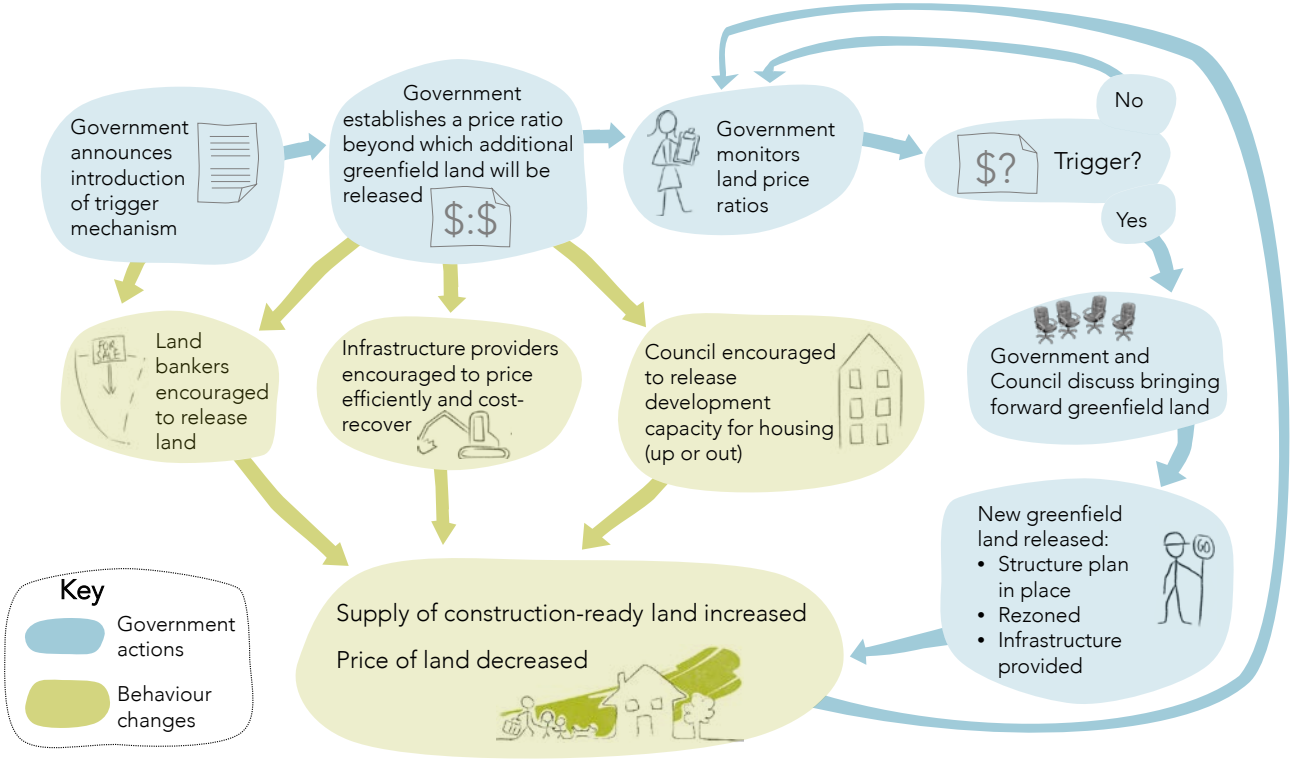
Ensuring the supply of urban space

Government should be as supportive as possible of cities delivering on their vision for a future urban form. But it should not accept a failure to deliver sufficient capacity for residential development in the face of growing demand.

Following the establishment of processes to monitor relative prices between developable and non-developable land, the Government should establish a framework for setting an unacceptable price differential that will trigger the release of additional greenfield land, either by National Policy Statement or by legislation.

R12.9 The Government should establish a threshold for the price difference between developable and non-developable land, beyond which it will ensure additional developable land is made available.

Figure 12.3 How a price-driven trigger to release additional greenfield land might work



The Government will need to have a mechanism to ensure structure plans for greenfield growth areas are developed, and ensure plan changes can be effected. Although the Minister for the Environment has existing powers to direct changes to plans, those changes must relate to statutorily-recognised functions of councils. So it is likely that new powers, or recognition of these functions, would be required.

R12.10 The Government should establish a process involving the relevant council to bring forward the release of additional greenfield land where relative land prices exceed the threshold set.

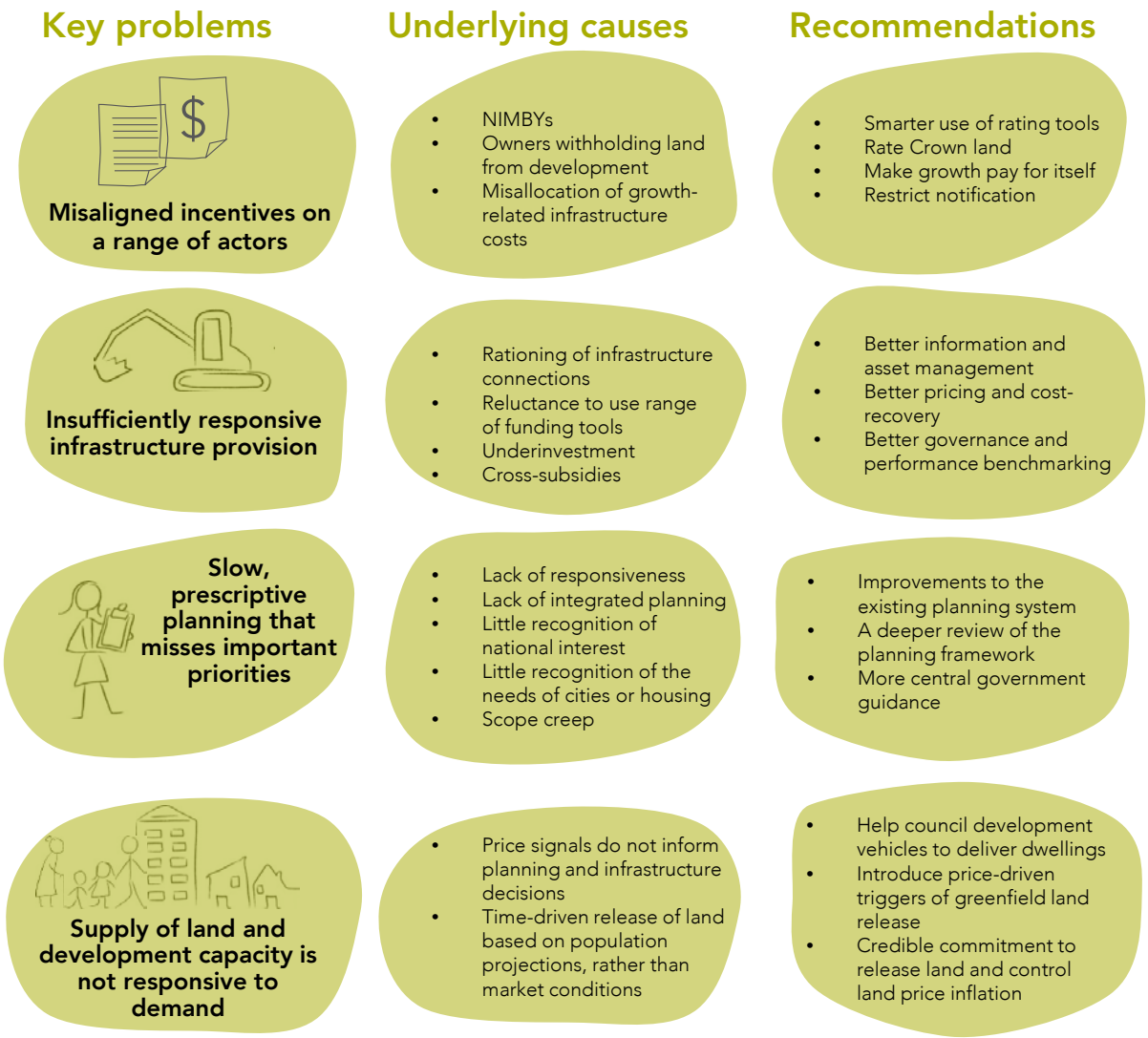
The Government will also need to ensure that infrastructure servicing is brought forward in greenfield sites enabled by this framework. This may be by imposing service obligations on core infrastructure providers; tendering directly for services and compelling providers to accept the resulting debt and assets; or other alternative methods of provision. In doing this, the Government should take care to ensure that infrastructure providers are not absolved of the costs of growth in such a way that makes this model of enabling residential capacity more attractive to councils or infrastructure providers. This would incentivise providers to price efficiently and pass on the costs of growth.

R12.11 The Government should develop a process for ensuring that greenfield land brought forward for development as a result of the price threshold being exceeded is serviced with necessary bulk infrastructure, to allow land to be developed.

12.7 Conclusion

Increasing the supply of land for housing is an integral component of addressing housing affordability concerns. This report outlines a range of changes to reform land use rules, planning processes, and local incentives that will measurably improve that supply (see Figure 12.4).

Figure 12.4 Addressing land supply for housing



This report also finds that where cities face the most pressing demand for residential space, there can be a disconnect between the local and national interest about to what extent, or how fast, a city should accommodate that demand. New Zealand's highly devolved regulatory framework in land use regulation means that this tension is currently resolved in favour of the local interest. Councils can do a better job of providing that development capacity, and this will require them to confront trade-offs between the interest of their existing residents and accommodating demand for new housing. The Government can do more to help, through modifications to the planning system and through supporting local UDAs to provide dwellings consistent with local preferences for a city's future urban form.

But where demand for space continues to be unmet, there are significant negative consequences and lost opportunities that have to be managed at a national level. There is a point at which these harms become so great that the tension between local interests and national interests should be resolved in favour of the national interest. This chapter sets out a mechanism to provide for this.

As outlined in Chapter 1, improving the supply of land for housing is the most important component of addressing affordability concerns. Yet it is not the only component of a comprehensive solution. This report has not considered the capacity of the building industry to respond to increased availability of land and stronger incentives to use it for dwellings, the quality of building regulation, the productivity of the construction sector, or the cost of building materials. As outlined in the Commission's report on *Housing affordability* (2012a), these areas also have an impact on housing affordability. However, as discussed in Chapter 3, unless land supply is addressed, any gains in these areas are likely to accrue not to home-buyers but to landowners.

Locally governed UDAs could play an important role here as well. By reducing regulatory risk, a UDA could partner with private sector developers and builders. Doing so would allow them to innovate and demonstrate the effectiveness of different approaches to building communities, and to grow so they can operate on the scale required. Government can support local UDAs in a number of ways to do this, including through providing them with powers to assemble sites for redevelopment.

New Zealand's fastest-growing cities need to accommodate their rising populations. This means allowing them to grow out and up, and to become denser. However zoning and infrastructure provision that is not responsive to demand contributes to escalating land costs. In turn, this encourages owners to withhold land, and forces builders to construct the most expensive dwellings on those sites that are available. The resulting shortage in housing causes a range of invidious social and economic harms that hurts the wellbeing of individuals, families, communities and the nation. The local winners from that shortage can have incentives to use local political processes to resist more enabling zoning and greater infrastructure provision.

This vicious cycle must be addressed by unlocking land supply in a way that is much more responsive to demand. Councils in our largest and fastest-growing cities should be given every opportunity to accommodate their rising populations, but where they cannot, government should commit to managing land price inflation by establishing a transparent process to ensure that residential land supply is responsive to demand.

Findings and recommendations

The full set of findings and recommendations from the report are below.

Chapter 2 – The planning and development system

Findings

F2.1 Responsibility for land use regulation, planning and the provision of infrastructure (with the exception of main highways) in New Zealand has been devolved to local government over time.

F2.2 Successive planning frameworks have included more formal rights for the public to be consulted and/or object to plans, land use rules and proposals.

F2.3 The perceived role and scope of planning has progressively expanded from managing public health issues in the later part of the 19th century, to controlling socially problematic behaviours in the early-to-mid 20th century, to promoting a wide range of desired social, cultural, economic and environmental outcomes.

F2.4 There are longstanding concerns about the extent of constraints placed by the planning system on development.

F2.5 Central government in New Zealand plays a limited role in urban policy, regulation and the provision of infrastructure in comparison with other jurisdictions such as the UK and Australia.

F2.6 Where central government has become directly involved in planning, this has generally occurred in response to crises or specific issues (eg, the Canterbury earthquake recovery, housing supply in Auckland). It has otherwise made little use of the statutory intervention powers it has under the RMA until recently.

F2.7 The constitutional and institutional arrangements in New Zealand strengthen the role of local government in the planning and development system relative to other countries. As a result, any misalignment of incentives between local and national interests may be more pronounced in New Zealand than elsewhere.

Chapter 3 – Cities, growth, and land for housing

Findings

F3.1 New Zealand's economy is increasingly dominated by services produced in our largest cities. Taking full advantage of agglomeration economies, or removing barriers to achieving agglomeration economies, will be important for New Zealand's overall productivity growth.

F3.2 Poorly organised cities can lead to a loss of potential agglomeration benefits. Firms cannot take advantage of a wider pool of workers available in a big city if the costs and time of getting to work or the lack of coordinated public transport infrastructure limit the areas in which people seek work.

F3.3 Capturing the productivity benefits that large and growing cities offer their residents and the wider economy puts a premium on good infrastructure planning, including the delivery of an adequate supply of development capacity for housing.

F3.4 The decisions that a city council makes about its growth may be at odds with the interests of central government in increasing the wellbeing of New Zealanders that would arise from a city of a larger size. Large cities offer more jobs, higher incomes and productivity which benefit a city's residents and provide wider benefits to surrounding regions and the country as a whole, but the costs of growth are felt locally.

F3.5 Land values in major New Zealand cities and high-growth areas have increased significantly since the middle of the last decade, both in nominal terms and as a share of total property values.

F3.6 Restrictions on land use, and resulting high land prices, encourage the production of larger and more expensive housing.

F3.7 Although New Zealand's housing market is moderately responsive to changes in prices compared to other countries, an increase in demand for housing leads to a proportionately larger increase in housing prices than new house construction.

F3.8 Variation in the responsiveness of housing supply between different cities is likely to be a reflection of different land-use regulatory settings.

F3.9 A fundamental disconnect exists between the demand for housing and the supply response of the planning system, which essentially is a policy and political process. Where land use regulation prevents an adequate supply response to the demand for housing, the price of housing increases.

F3.10 The planning system is not responsive to price signals that provide information about the location and type of housing that people demand, and about the available supply.

F3.11 Where demand for land exceeds the supply allocated through the planning system, landowners and developers act like local monopolists. They are able to restrict the supply of zoned and serviced land to maintain high prices.

F3.12 No consistently collected or comparable data is available on the stringency of land use regulation in New Zealand.

F3.13 A survey of fast-growing New Zealand councils found universally restrictive land use rules, but considerable variation in the overall stringency of land use regulation. This variation is due in large part to:

- differing levels of influence over planning by the courts, regional councils and community groups; and
- differences in the time taken to get approvals for development.

F3.14 Restricted housing supply will tend to inflate the value of existing homes. Existing homeowners have an incentive to be risk-averse in opposing developments that could affect the amenity of their neighbourhood and the value of their home.

F3.15 Existing homeowners have an incentive to oppose development that involves council expenditure on infrastructure that does not benefit them but will be recovered through general rates.

F3.16 Cities that are subject to geographic constraints to development (eg, near to a large body of water) show less supply responsiveness to housing demand, both because of the geographic constraints and because these constraints encourage higher land prices, strengthening the incentive for existing owners to support anti-development regulations. This is particularly true in larger and faster-growing cities.

F3.17 Groups that have high home ownership rates have higher rates of participation in local government elections. The influence of homeowners in local government elections and consultation processes promotes local regulatory and investment decisions that have the effect of reducing land supply for housing.

F3.18 Stringent land use regulations have a disproportionate impact on the less well-off and contribute to the unaffordability of housing. Demand-side assistance for homeowners and renters puts pressure on public finances. Restrictive land use regulation means that demand-side measures, such as rent and home owner subsidies, lead to increasing housing prices rather than a greater supply of housing at the low end of the housing market.

F3.19 Housing makes up a significant share of many New Zealanders' wealth. High housing prices have implications for the ability of some groups to accumulate wealth and for the distribution of wealth across the community.

F3.20 Restrictive land use regulations limit the ability of people to seek better employment opportunities in cities, are a barrier to potential productivity gains, and may create risks to macroeconomic stability.

F3.21 A "wedge" exists between the preferences of central government around accommodating growth in our fastest growing cities and the preferences of local communities represented by local councils. Local decision making has national consequences. The balance between local and national involvement in the planning and development system needs to shift in the national interest.

Chapter 4 – Incentives on landowners and ratepayers

Findings

F4.1 The way rates are set means increases in the value of the rating base (through increasing property prices or new development) will not of itself increase rating revenue. Unlike other taxes, there is no automatic connection between the size of the revenue base or its value, and the total amount of revenue collected. This means that councils face weaker incentives to grow the underlying revenue base than central government.

F4.2 High-growth councils tend to see new housing development as a net cost. The first response should be to ensure the costs of infrastructure are allocated appropriately.

F4.3	Owners of land may choose not to develop their land for a variety of financial and non-financial reasons. Efforts to encourage the development of such land needs to acknowledge and account for these varying drivers.
F4.4	Expectations of high future demand can encourage landowners to withhold land from development.
F4.5	Expected returns from developing land in the future are increased by regulatory constraints that increase the scarcity value of land. Owners withholding land from development is a symptom, rather than a primary cause, of land supply shortages.
F4.6	Auckland has a large number of owners of bare land suitable for subdivision and the construction of dwellings. No evidence exists that a small number of owners have a dominant position in the Auckland market.
F4.7	The practice of owners withholding land from development is widespread and has many causes. Patterns differs across New Zealand cities. In some cases owners may have a strong position in the local market for greenfield land that allows them to stage releases to control supply. In other cases ownership may be dispersed, but owners may withhold land from development because they expect higher returns from developing in the future.
F4.8	The use of capital value rating systems makes it less expensive to carry undeveloped and underdeveloped land compared to land value rating systems. At the margin, the use of land value rating systems would encourage land to flow to its highest value uses, including more and denser housing.
F4.9	Both land value and capital value are strongly associated with income. National evidence shows that the relationship between land value and income is stronger; but councils should review the evidence in their own districts as an input into future local reviews of their rating policies.
F4.10	Although market transactions of unimproved land are fewer, little evidence is available of greater variance in assessed values of bare land than improved land.
F4.11	The distributional effects of a systematic incorrect valuation of land on the rating burden may be greater under a capital value rating system than a land value rating system.
F4.12	Owners of undeveloped land benefit from council services and infrastructure funded from general rates because the value of these services is capitalised into land prices.
F4.13	A good case appears to exist for setting general rates on the basis of land value rather than capital value, to encourage the development and the efficient use of land.
F4.14	The rating exemption on core Crown land does not appear to have a principled justification.

Recommendations

R4.1 When councils review their rating policies in the future, they should review the evidence in this report with a view to adopting land value as the basis for setting general rates.

R4.2 In future local government amalgamations, central and local government should take the opportunity to consider the merits of adopting land value rating to encourage the efficient use of land.

R4.3 The Government should investigate removing the rating exemption on land owned by the Crown (including on land used for health and education purposes), land used by local government for recreation and community facilities, and the Crown's exemption from other local government fees and charges.

Chapter 5 – Regulatory barriers to the growth of cities

Findings

F5.1 Many of New Zealand's high-growth cities impose, or intend to impose, urban limits. The limits vary in terms of their permanence and their ability to be adjusted in response to market developments.

F5.2 Most of the high-growth cities investigated in this inquiry have goals and policies in their RMA plans to protect high-class agricultural land from residential development.

F5.3 Tensions between the growth of cities and agricultural activities are inevitable, since many cities in New Zealand are located near land that is, or has been, used for agricultural purposes.

F5.4 Zoning practices that require large minimum lot sizes in rural areas are unlikely to encourage the most efficient use of land.

F5.5 Land, like any other resource, will tend to move towards its highest value use. Prices indicate the highest and best use of a particular parcel of land. In some cases, the highest value use will be residential housing; in others, it will be agriculture or horticulture.

F5.6 Land prices, especially price differentials between different types of zones, should play a more prominent role in planning decisions.

F5.7 Balcony requirements for apartments create costs that appear to outweigh any likely benefits.

F5.8 Controls on apartment sizes were introduced in New Zealand in part because of concerns about the adequacy of ventilation, natural light and internal noise insulation. These concerns are best dealt with through targeted regulation and through amendments to national regulations such as the Building Code and /or the Housing Improvement Regulations.

F5.9 Minimum parking requirements create land use inefficiencies and higher construction costs, contributing to increased housing costs. In addition, they represent an effective subsidy to car users, encouraging excessive use.

F5.10 Building height limits significantly reduce development capacity. Such restrictions contribute to housing shortages and higher house prices, and force cities to move outwards, increasing transport costs for some residents. They weigh against objectives of increasing urban density and using city land more efficiently. Although building height limits can play a role in managing local externalities from development, they also create costs that are felt across a city.

F5.11 Protecting buildings and sites of major historical significance can provide benefits to the wider community, but also create costs, most obviously by making renewing and increasing the housing stock more difficult.

F5.12 The wider the reach of a heritage protection policy or rule, the larger the likely negative effects on housing supply.

F5.13 The wider costs and impacts of imposing heritage and special character protection policies and rules, which can be substantial, have not been fully accounted for in the underlying analysis supporting such policies.

F5.14 Limits on density – either explicit restrictions on density or implicit controls such as minimum section size rules – are blunt tools that have a negative impact on development capacity, affordability and innovation. Externalities arising from more intensive development can be better managed through other controls and policies.

F5.15 Covenants established in new subdivisions are increasingly common and impose detailed restrictions on purchasers.

F5.16 Covenants reduce the flexibility of use of land now and in the future, and increase the cost of constructing dwellings.

F5.17 Covenants provide a number of benefits, including encouraging development by reducing risks for buyers and sellers, and allowing landowners to set rules and conditions that reflect their preferences. Regulatory controls on covenants should reflect both the costs and benefits of covenants.

F5.18 Multiple and conflicting objectives in RMA plans reduce the ability of those plans to enable the provision of sufficient land and development capacity.

F5.19 Inadequate underpinning analysis for District Plan rules and provisions is a key source of unnecessary regulatory costs for developers.

F5.20 District Plan provisions which impose controls on the internal design and construction of buildings that are more stringent than standards set under the Building Act 2004 may be unlawful.

F5.21 The New South Wales Urban Feasibility Model is a leading practice tool that can be used to develop and test commercially viable land-use rules, especially for infill and brownfield development.

F5.22 Auckland Council's commissioning of detailed cost-benefit studies for particular land use rules is a good example of the depth and rigour of analysis that should accompany the introduction of new rules. Their findings should be better taken into account in council decisions.

F5.23 Central government's existing policies and guidance on planning fail to meet the level of analysis now expected of local authorities.

Recommendations

R5.1 Councils with urban limits should ensure that they have mechanisms to promptly review the placement and restrictiveness of those limits, in light of market developments.

R5.2 The Government should ensure that any future legislative proposals to permanently remove or limit specific areas near cities from being developed are assessed for their impacts on housing supply and costs.

R5.3 The Government should amend the Local Government Act 2002, to enable faster and more streamlined approval of minor changes to local authority boundaries.

R5.4 High-growth councils should review minimum lot size rules, subdivision and density controls in rural zones to ensure they provide the right balance of promoting efficient use of land for housing and managing externalities.

R5.5 The Treasury should review the foreign investment screening regime for developers with a view to enabling foreign developers to purchase land without gaining consent from the Overseas Investment Office, providing that it is developed into housing within an acceptable timeframe.

R5.6 Councils should remove District Plan balcony requirements for apartments.

R5.7 Councils should remove minimum apartment size rules in District Plans, once the Ministry of Business, Innovation and Employment has:

- completed planned work on updating Building Code rules and guidance related to air quality, lighting, acoustics and access in multi-unit dwellings, and
- reviewed the Housing Improvement Regulations 1947.

R5.8 Councils should remove minimum parking requirements in District Plans and make more use of traffic demand management techniques (eg, variable pricing for on-street parking).

R5.9 Councils should:

- lift current height limits where it cannot be demonstrated that the benefits outweigh the costs; and
- undertake robust cost–benefit analyses before considering the introduction of building height limits.

R5.10 Councils should:

- undertake a review of their existing heritage and special character protection policies, carefully assessing the costs and benefits of such policies and their impacts beyond protected areas, and identifying constraints imposed on housing supply;
- tightly focus heritage and special character polices on specific structures or items with high, genuine and significant historical or cultural value; and
- avoid introducing wide-ranging heritage or special character policies that restrict the redevelopment of a large share of the housing stock.

R5.11 Councils in high-growth cities should avoid introducing explicit limits on housing density, and review existing limits with a view to lifting them.

R5.12 The Ministries of Justice and of Business, Innovation and Employment should review the legislative provisions governing covenants with a view to:

- reducing the proportion of landowners required to agree to covenant changes from all to a super-majority; and
- introducing a statutory sunset period on restrictive covenants of 25–30 years.

R5.13 Councils should review District Plan controls on the internal design and construction of buildings or dwellings that exceed standards set under the Building Act 2004, with a view to removing them.

R5.14 The Ministry for the Environment, in partnership with urban councils, should explore the potential to develop an Urban Feasibility Model that New Zealand councils can use to develop and test suitable planning controls.

R5.15 Councils should make more use of cost–benefit analysis in assessing the merits of proposed new land use regulations.

R5.16 Central government should assist councils in conducting better cost–benefit analysis of proposed land use rules, through arranging training and providing templates and technical guides.

R5.17 The Government should replace its existing guidance on planning with material that more clearly demonstrates and showcases high-quality cost–benefit analysis. Key documents that should be replaced include:

- the *New Zealand Urban Design Protocol*, and
- *National Guidelines for Crime Prevention through Environmental Design in New Zealand*.

Chapter 6 – Rezoning and approvals processes

Findings

F6.1	High-growth councils take longer on average than other local authorities to make plan changes operative.
F6.2	Available evidence does not support the proposition that plan changes typically take many years for cities to complete. Even for high-growth councils, the median time taken to complete a plan change was slightly over a year and a half.
F6.3	Appeals and associated processes appear to partly account for the longer average time it takes to complete plan changes in high-growth councils.
F6.4	The fact that plan changes take longer on average to complete in faster-growing areas is not surprising. Faster-growing areas tend to be larger cities, where more residents with interests may be affected and where more impacts on others must be managed.
F6.5	Limiting the ability of directly affected parties to make further submissions on proposed plan changes would be undesirable.
F6.6	Giving councils greater flexibility over notifying site-specific plan change proposals could create opportunities for faster rezoning processes, while protecting the ability of those directly affected to be heard.
F6.7	Despite amendments to the RMA in 2009 which were intended to give local authorities more flexibility over how they notify a plan change or variation, councils are still obliged to publish notices in newspapers. This is unlikely to be the most effective way of communicating with parties affected by a plan change.
F6.8	Engagement with affected parties on proposed plan changes ahead of their notification and circulation of draft plan changes for comment are both leading practices that may help to reduce the incidence of appeals.
F6.9	Broad zones that enable a wide range of activities to occur are less likely to require rezoning.
F6.10	Removing or significantly limiting the access to appeals would be unlikely to improve the quality of District Plans or land use regulations.
F6.11	The question of whether and how appeal avenues could be limited needs to be considered in the light of a wider review of the planning system and, in particular, of any alternative institutional arrangements to test the rigour and appropriateness of proposed land use regulation.
F6.12	Providing a "one stop shop" for developers by bringing together all parts of councils that influence a development project can help to reduce transaction costs and unnecessary delays.
F6.13	Opportunities exist in New Zealand to reduce costs and delays by making greater use of electronic planning tools.

F6.14 The benefits of nationally standardised land use rules and zones, such as occur in many Australian states, are unlikely to outweigh the costs.

F6.15 Little information is available on the proportion of land use activities that are "permitted" under existing District Plans. However, the experience of the Queenstown Lakes District Plan review suggests that scope exists for further liberalisation of residential land use requirements in current RMA Plans.

Recommendations

R6.1 The Government should introduce amendments to the RMA, allowing councils to only notify directly affected parties of proposed plan changes that are specific to particular sites. The amendments should mirror the 2009 amendments to section 95 of the RMA.

R6.2 The Ministry for the Environment should review whether the current Schedule 1 requirements provide enough room for innovative consultation processes, while also protecting the rights of affected parties.

R6.3 Councils should publish and consult on draft plan changes of interest to the wider community ahead of notification, unless compelling reasons exist for not doing so.

R6.4 Councils should limit the use of special purpose zones. They should only be used for large facilities with particular land use requirements that are unlikely to move sites.

R6.5 In reviewing their District Plans, local authorities should move more residential land-use activities into "permitted" or "restricted discretionary" status.

Chapter 7 – Policies targeting lower-cost housing

Findings

F7.1 International evidence indicates that inclusionary housing policies make a very small contribution to the provision of lower-cost dwellings.

F7.2 Council polices on inclusionary housing are likely to struggle without a range of other supporting polices, most of which require support from central government (such as land and funding).

F7.3 Inclusionary housing policies that involve high degrees of discretion on the part of local authorities create uncertainty and delay, discouraging development.

F7.4 Depending on their design and the state of the housing market, inclusionary housing policies can also increase the price of non-targeted dwellings and involve significant administrative costs.

F7.5 Inclusionary housing policies target the symptoms, not the causes, of a declining supply of lower-cost housing. They do not offset planning controls that limit the supply of land or the other factors that contribute to the high-cost nature of New Zealand's building industry, such as fragmented land holdings that mean developments cannot capture significant economies of scale.

F7.6 With the exception of Auckland and Christchurch, neither central nor local government appears to have undertaken a stocktake of public land holdings in high-growth cities to identify land that could be released for residential development.

Recommendations

R7.1 Rather than pursuing inclusionary housing policies, the Government and councils should promote a greater supply of lower-cost housing by:

- removing planning controls that limit the supply of development capacity and housing; and
- supporting or establishing institutions that lower barriers to the supply of lower-cost housing (eg, urban development authorities).

R7.2 The Ministry of Business, Innovation and Employment, in conjunction with relevant councils, should make an inventory of public land holdings in all high-growth cities to identify surplus sites that could be used for housing.

R7.3 Once an inventory of public land holdings is complete, the Government should seek opportunities to partner with local authorities and private landowners to achieve scale sites for lower-cost housing development.

Chapter 8 – Planning and delivering infrastructure

Findings

F8.1 Infrastructure accounts for a significant share of the cost of new dwellings. Costs are location-specific and consist primarily of costs incurred by the developer in constructing on-site infrastructure, development contributions paid by the developer to councils, and connection fees for private utilities.

F8.2 Most inquiry participants suggested that higher-density urban developments are less costly to service with infrastructure, particularly when existing infrastructure assets have not yet reached capacity. International research examining the relationship between urban form and infrastructure costs generally supports this proposition.

F8.3 Councils are required to undertake relatively rigorous infrastructure planning processes, a reflection of the fact that councils are asset-intensive organisations.

F8.4 Councils tightly control the supply of trunk infrastructure to support urban growth. This is a prudent approach from the perspective of managing costs and risks. However, if the supply of infrastructure is too conservative, it can constrain the supply of land for housing. In turn, this can contribute to higher land prices by reinforcing expectations among investors of a scarce supply of serviced land for housing.

F8.5 Development agreements enable developers to take responsibility for building trunk infrastructure. This shift has the potential to generate a swifter supply of infrastructure and to encourage innovative approaches to infrastructure construction.

F8.6 Measures taken by councils to facilitate development agreements involving multiple land-owners can help to increase the responsiveness of infrastructure supply. However, as negotiating between multiple land-owners and developers can be costly and time consuming, councils should not be obliged to facilitate private agreements.

F8.7 Innovative approaches to infrastructure construction that lower upfront costs and allow services to be scaled up as demand increases can help to overcome the difficulties of investing in infrastructure to support future growth. The staged construction approach used by Selwyn District Council is a good example of this leading practice.

F8.8 Improving the supply of infrastructure for housing is not just about rolling out new infrastructure. Effective use of existing infrastructure assets is also an important part of the equation.

F8.9 Councils can unlock land supply by enabling growth in areas where spare capacity is available within existing infrastructure networks. This leading practice requires councils to establish a good understanding of existing infrastructure capacity along with appropriate planning rules that allow intensification to occur in areas where capacity exists.

F8.10 Forecasts in the Long-Term Plans of high-growth councils point toward a growing and potentially under-funded requirement for infrastructure renewals. Effectively managing ageing assets and funding the renewal of infrastructure are likely to be major challenges for councils in the coming years.

F8.11 Effective asset management can enable councils to make better use of existing assets, facilitate optimal decisions about the location of growth, set well-informed infrastructure standards, and improve the coordination of infrastructure delivery among different providers.

F8.12 Wellington City Council's approach to asset management is a leading practice. Benefits of the approach include enabling the council to make more effective use of existing infrastructure, better coordination and timing of maintenance and replacement work, and the ability to take an evidence-based approach to spatial planning.

F8.13 A broad range of initiatives is in place to strengthen local government asset management practices. The National Infrastructure Unit is well positioned to monitor these initiatives and take additional steps to strengthen practice as necessary.

F8.14 User charges are an effective approach to demand management that can enable councils to make better use of existing assets. This can contribute to an improved supply of land if it increases the number of dwellings that existing infrastructure assets can support. It also has potential to reduce the operating expenditure of councils and to delay or avoid capital investments in new infrastructure.

F8.15 It is not clear that a longer default period for designations would provide a net benefit. The RMA already allows requiring authorities to seek longer designation periods, and a recent assessment suggests that these are used when necessary. The option of removing the default period altogether could be considered as part of any wider RMA reform.

F8.16 A number of practices enable consistency in infrastructure standards set by councils, including the use of the *New Zealand Standard Land Development and Sub-Division Infrastructure* (NZS4404:2010).

F8.17 Adopting consistent infrastructure standards at a regional or subregional level (as practised in the Waikato region) may provide a good balance in addressing concerns about unnecessary variation in standards, while being responsive to local priorities.

F8.18 Council processes that seek early engagement with the development community and private utility companies are a leading practice.

Recommendations

R8.1 The Local Government Act 2002 should be amended to ensure that the requirement to consider development agreements that applies to councils also applies to council controlled organisations.

R8.2 A National Policy Statement on urban development should introduce common terminology regarding land supply and its readiness for building (eg, not residential zoned; zoned; zoned and serviced; zoned, serviced and consented). Councils should use this terminology to publish clear information about available land and its readiness for building.

R8.3 Councils should prioritise the development of up-to-date asset management information systems. This should be supported by recruiting and developing staff with the skills and expertise needed to make effective use of these systems, and ensuring that the information from asset management systems is integrated into decision-making processes.

R8.4 Councils should pursue opportunities to make more efficient use of existing infrastructure assets, including through greater use of user charges where this can reduce demands on infrastructure.

R8.5 When reviewing options for the governance, funding, and delivery of infrastructure under section 17 of the Local Government Act 2002, councils should assess whether the benefits of introducing volumetric charges for water outweigh the costs.

R8.6 Where no economic case exists for introducing water metering and volumetric charges, councils should separately list these costs on rates bills or present them in a separate water services bill.

R8.7 The Local Government (Rating) Act 2002 should be amended to enable all local authorities to charge for wastewater volumetrically in the way that they can for drinking water (irrespective of whether wastewater services are managed by a CCO).

R8.8 The Government should amend the Land Transport Management Act 2003 to allow pricing on existing roads where a case has been made that it would enable more effective use of the roading network.

R8.9 Effective asset management systems are important for maintaining existing assets and planning and delivering new infrastructure. Councils should set infrastructure standards based on evidence collected through asset management systems. Evidence underpinning infrastructure standards should be shared openly with the development community to help build an understanding regarding the rationale for certain standards.

R8.10 If councils determine that a good case to change infrastructure standards exists, then developments that already have consent should be exempt from the change, provided that they have held that consent for fewer than five years. Alternatively, developers should be compensated for any additional costs incurred as a result of the change.

Chapter 9 – Paying for infrastructure

Findings

F9.1 Debt is an important source of finance for urban infrastructure in high-growth areas. It enables councils to deliver infrastructure when it is most needed and for infrastructure costs to be spread over the life of the asset. This means that those who benefit from the infrastructure contribute to paying for it.

F9.2 Recent assessments have not identified serious concerns regarding councils' use of debt.

F9.3 Development contributions play an important role in enabling the provision of essential infrastructure to support urban growth. Properly structured charges help to ensure that investment reflects its opportunity cost and that locational decisions are efficient. By providing a way to recover the costs of growth from those that benefit, development contributions remove some of the reason why ratepayers oppose growth.

F9.4 Some types of community infrastructure cannot be recovered through development contributions. However considerable scope exists for councils to increase their use of targeted rates to recoup the costs of this infrastructure from the sections of the community that benefit.

F9.5 There is little evidence to suggest that the current processes for challenging, and providing transparency over, development contributions are deficient.

F9.6 Tauranga City Council provides an opportunity for the development community to review proposed development contributions, and will consider feedback on areas for improvement. Inquiry participants have identified this approach as a leading practice.

F9.7 New Zealand's current system of rates means that a straight adoption of tax increment financing schemes used overseas is not suited as a funding tool for growth-related infrastructure.

F9.8 The municipal utility district (MUD) model of infrastructure development has potential to inject competition into the market for infrastructure. However it is not clear whether a proliferation of small, resident-managed infrastructure districts would achieve efficiencies. In addition, there appears to be few barriers to pursuing this model of development in New Zealand and little enthusiasm for the model among the development community.

Recommendations

R9.1 The Department of Internal Affairs' monitoring of the *Financial Reporting and Prudence* regulations should:

- assess how the regulations affect councils' ability to provide infrastructure to support growth; and
- review whether 15% is the most appropriate debt-servicing ratio for high-growth councils.

R9.2 Development contributions should fully recover the costs of trunk infrastructure needed to support growth.

R9.3 Councils should underpin their development contributions policies with analysis regarding the relationship between relevant dwelling characteristics and the cost of providing infrastructure services. Where certain dwelling characteristics result in lower or higher costs on the infrastructure network, this should be reflected in the size of the development contribution.

R9.4 Councils should consider repayment options for development contributions that allow the costs to be recovered over a longer time period. The application of a targeted rate that recovers the cost of infrastructure is one existing mechanism that would facilitate this.

R9.5 To enable councils to capture the uplift in property values resulting from infrastructure investments, the Department of Internal Affairs should investigate amending the Local Government (Rating) Act 2002 to allow councils to levy targeted rates on the basis of change in land value.

Chapter 10 – Governance of transport and water infrastructure

Findings

F10.1 The Government Policy Statement on Land Transport makes relatively little reference to land supply for housing. A stronger focus on how transport infrastructure can support land supply for housing would change the New Zealand Transport Agency's investment priorities and might help to free up land supply in high-growth cities. However, shifting the priorities for land transport funding could have implications for existing priorities.

F10.2 Facilitated discussions involving central and local government organisations can be effective in developing a shared understanding of land use demand and associated infrastructure.

F10.3 Governments in other jurisdictions have deliberately sought to increase the scale of water provision through mergers of existing providers. This can deliver scale economies and gains in capability. However, mergers have not always resulted in increased performance or efficiency, which points toward a need for careful assessment of costs and benefits before undertaking any merger.

F10.4 While water services have a range of characteristics that have led to local public monopoly provision, the approach has a number of well-recognised issues. One particular problem is that the provision of water services, particularly water pricing, is susceptible to political interference. This can inhibit efficient and responsive provision of water infrastructure to support urban growth.

F10.5 Watercare's Infrastructure Growth Charge does not currently recover the full costs of new infrastructure to support growth. This has the potential to create disincentives on the council controlled organisation and existing residents to accommodate new growth.

F10.6 The current legislative restrictions on the use of contracting or franchise arrangements for delivery of water services limit the ability to create contestability in water provision.

F10.7 The process by which Hamilton City Council, Waikato District Council and Waipa District Council have proactively considered approaches to improve the efficiency of three waters infrastructure is a leading practice.

F10.8 While the primary accountability documents for Watercare and Auckland Transport (the Statements of Intents) are broadly aligned with the Auckland Plan vision, they do not give effect to the specific objective in the Auckland Plan to increase the city's supply of new dwellings.

F10.9 The statutory and legal frameworks for water supply, wastewater and stormwater in New Zealand are unclear.

F10.10 A feature of water services provision in many other countries is the presence of strong self-regulatory institutions, particularly performance benchmarking.

F10.11 The industry-led approach to benchmarking the performance of water providers in the Netherlands is a leading practice.

F10.12 Water New Zealand's *National Performance Review* is a good practice. However its effectiveness could be strengthened with greater industry buy-in and further development of some indicators.

Recommendations

R10.1 Watercare should revise its approach to the Infrastructure Growth Charge so that the full costs are recovered.

R10.2 Watercare should change its approach to calculating infrastructure growth charges, to better reflect the underlying economic costs of supply in different locations and for different types of dwelling.

R10.3 Watercare's Infrastructure Growth Charge should be subject to the same appeal processes as development contributions.

R10.4 When reviewing the cost-effectiveness of arrangements for infrastructure services under part 17 of the Local Government Act 2002, councils should ensure that the arrangements facilitate a responsive supply of infrastructure to support urban growth.

R10.5 The Local Government Act 2002 should be amended to provide councils with a wider range of options for providing and managing water services. Legislative barriers to the use of contracting arrangements for water services should be repealed.

R10.6 When reviewing their arrangements for good quality infrastructure under section 17 of the Local Government Act 2002, councils should consider whether the council controlled organisation model offers potential to capture scale economies, and to generate a more responsive supply of infrastructure to support urban growth.

R10.7 Auckland Council should ensure that its council controlled organisations are aligned with the Auckland Plan and its target for new dwellings. Auckland Transport and Watercare's SOIs should be amended to include performance measures relating to the efficient roll-out of new infrastructure to support an increased supply of new dwellings.

R10.8 LGNZ should support Water New Zealand's benchmarking initiative by encouraging all councils to participate and by working with councils to assist them in improving their data quality.

Chapter 11 – Reform of the planning framework

Findings

F11.1 There are systemic weaknesses in the planning framework, including:

- poor integration between the planning processes of the three main Acts;
- inadequate attention to the national and public interest;
- insufficient recognition of the needs of cities and housing;
- lack of responsiveness, and
- scope creep.

F11.2 A review of the planning framework is timely and would provide an opportunity to address its weaknesses.

F11.3 Inquiry participants reported a number of benefits from New Zealand's spatial planning processes, including greater intra-regional cooperation and understanding, more efficient infrastructure use and investment, a better ability to respond to new policy initiatives, cost savings and greater certainty.

F11.4 Duplicative statutory consultation requirements and weak legal connections between the different planning Acts make it time-consuming and challenging for local authorities to successfully translate spatial plans into RMA regulatory plans and other planning processes.

F11.5 Spatial plans have a place in a future planning system, and the planning framework should be designed to ensure that such plans:

- have stronger legislative weight in other planning processes (ie, land use regulation, transport and infrastructure);
- express clear priorities and trade-offs;
- include a statement of expected housing demand;
- focus on activities and goals that have a close link to the demand for and use of land, and
- make extensive use of data and are designed with close involvement from infrastructure providers.

F11.6 The planning system has scope to be rationalised, by re-allocating some existing functions and collapsing or removing some of the plans that are currently required.

F11.7 There would be benefit in central government being involved upfront in ensuring city plans are sufficiently robust to meet the demand for land for housing.

F11.8 A need exists for better and more regular data on changes in the dwelling stock, especially housing additions and demolitions. Existing information provided through building consents is of poor quality.

F11.9 Responsibility for urban planning matters is currently distributed between several central government departments. If central government is to play a more active and engaged role in the development of cities, greater coordination between these departments and Ministerial leadership will be required.

Recommendations

R11.1 The Government should make the preparation of long-term infrastructure strategies a permanent part of central government's planning and reporting framework.

R11.2 The Government should work with councils using spatial plans to develop a common set of data and growth projections that can be used to underpin planning at all levels.

R11.3 The Ministry of Business, Innovation and Employment, Statistics New Zealand and councils should work together as a priority to improve the quality of official statistics on changes to the dwelling stock, including demolitions and conversions.

R11.4 The Government should establish processes to better coordinate departments involved in urban planning, so that it can engage more effectively with urban councils.

R11.5 A future planning system should require councils to make use of land price information in their planning decisions, such as setting the overall land supply and deciding on the allocation between different types of zones (eg, industrial, commercial, residential) within a city.

R11.6 Once the work of the Auckland and Christchurch Independent Hearings Panels (IHPs) is complete, the Ministry of Business, Innovation and Employment and the Ministry for the Environment should, in consultation with the relevant local authorities, evaluate the IHP processes, with a view to learning whether and how IHPs could be made a permanent feature in the planning system.

R11.7 A future planning framework should explore options for more responsive rezoning, allowing planning controls to adjust in response to specified triggers (eg, the installation of key infrastructure, population densities passing a certain threshold).

R11.8 The review of the planning framework should aim to make it easier to develop neighbourhood plans, through which local authorities can provide targeted infrastructure or services for neighbourhoods facing significant change.

Chapter 12 – Meeting demand for urban space

Findings

F12.1 Urban development authorities can play an important role in de-risking development and bringing land to market.

F12.2 Submitters gave broad support for urban development authorities to lead urban regeneration projects that provide for residential development, but gave little support for one nationally established Authority.

F12.3 New Zealand's largest cities have local urban development authorities established or planned.

F12.4 A nationally established urban development authority is likely to be counterproductive where councils have urban development vehicles.

F12.5 The ability of local authorities to compulsorily acquire land for housing or urban regeneration is unclear.

F12.6 Large differences between the price of developable and non-developable land reflect demand for urban uses that are prevented by the planning system or by a lack of growth-enabling infrastructure.

F12.7 Discontinuities of price between land inside and outside the Auckland Metropolitan Urban Limit continue to grow.

F12.8 Event-driven triggers to release land will be significantly more responsive to demand for land than time-driven approaches. This will contribute to more stable land prices for developable land.

F12.9 Price signals provide an indication of whether councils are successfully creating sufficient economically feasible capacity for more dwellings within their cities. Where councils are pursuing denser urban forms, price signals provide an indication of whether their land use rules facilitate this in practice.

F12.10 A commitment to release additional land where price discontinuities reach a certain threshold would assist councils in confronting the trade-offs necessary to give effect to their visions for a more compact urban form.

F12.11 A credible commitment to releasing additional greenfield land when price discontinuities reach a given threshold would promote the release of land currently being held in expectation of future price increases.

Recommendations

R12.1 The Government should legislate to create a regime similar to Special Housing Areas whereby certain developments undertaken by local urban development authorities are designated by Order in Council as having the potential to deliver significant numbers of dwellings, and within which the urban development authority will operate with different powers and land use rules.

R12.2 The Government should provide for 'designated developments' undertaken by local urban development authorities to allow higher height and storey limits than in the Special Housing Areas regime, and to allow non-residential uses that may be necessary for the development to be economically viable.

R12.3 The Government should legislate to grant compulsory acquisition powers to local urban development authorities for 'designated developments', subject to the normal processes, compensation and protections of the Public Works Act 1981.

R12.4 The Government should adjust the 'offer back' provisions of the Public Works Act 1981 for use by urban development authorities, so that they are not obliged to offer back land that has been significantly redeveloped.

R12.5 The Government should provide for 'designated developments' undertaken by local urban development authorities to operate under streamlined planning and consenting processes. This should include restricting public notification.

R12.6 The Government should look at other opportunities to support the activity of local urban development authorities to deliver on councils' goals for urban redevelopment, including through making Crown land available, partnering in specific projects, and ensuring that Housing New Zealand cooperates where relevant.

R12.7 Land Information New Zealand should provide wider public access to information in District Valuation Rolls and property sales data.

R12.8 The Government should develop a process to regularly monitor and report on the relative prices or assessed values of developable and non-developable land in our fastest growing cities.

R12.9 The Government should establish a threshold for the price difference between developable and non-developable land, beyond which it will ensure additional developable land is made available.

R12.10 The Government should establish a process involving the relevant council to bring forward the release of additional greenfield land where relative land prices exceed the threshold set.

R12.11 The Government should develop a process for ensuring that greenfield land brought forward for development as a result of the price threshold being exceeded is serviced with necessary bulk infrastructure, to allow land to be developed.

Appendix A Public consultation

Submissions

INDIVIDUAL OR ORGANISATION	SUBMISSION NUMBER
A L Christensen	007
Allison Tindale	008, DR084
Auckland 2040	028
Auckland Community Housing Trust	071, DR090
Auckland Council	071, DR135
Auckland District Council of Social Services	022, DR081
Auckland Transport	068
Bay of Plenty Regional Council	046, DR089
Bluehaven Holdings Limited	042
BusinessNZ	016
Canterbury Earthquake Recovery Authority	061
Carrus Corporation Limited	010, DR078
Chorus	072
Christchurch City Council	DR128
Commercial & Industrial Consultants Ltd	067
Community Housing Aotearoa	034
Construction Strategy Group	013
Dale Smith	031, DR080
Development Advisory Services	075
Donald Ellis	044
Electricity Networks Association	DR111
Environment Canterbury	020, DR110
Environment Court of New Zealand	DR092
Evan Keating	035, DR101
Federated Farmers of New Zealand	051, DR120
FIT (Fair Intelligent Transport) Wellington	DR116
Foodstuffs	050
Future Proof	039, DR109
Glenn Broadbent	058
Glenn Metcalf	066
Gordon Copeland	DR083
Greater Christchurch Urban Development Strategy	018, DR112
Greater Wellington Regional Council	038
Grey Lynn Residents Association	DR103
Habitat for Humanity Christchurch	DR099
Hamilton City Council	070, DR114
Hill Young Cooper	065, DR119
Horticulture New Zealand	064, DR127
Hughes Developments Limited	043
Human Rights Commission	DR123
Hutt City Council	017
Ian McComb	DR122
Insurance Council of New Zealand	009

IPENZ Engineers New Zealand	019, DR126
Jenny Campbell	006
John Hookway	DR077
Jonathan Barrett	DR082
Joseph Hogan	DR076
Kathleen Vitasovich	DR079
Local Government New Zealand	054, DR130
Mana Whenua Kaitiaki Forum	DR124
Martin Ulenberg	DR085
Massey University	DR107
Massey University – School of People, Environment and Planning	DR105
Mike Greer Homes Ltd	048
New Zealand Centre for Sustainable Cities	DR131
New Zealand Council for Infrastructure Development	057, DR132
New Zealand Heavy Haulage Association (Inc) House Movers Section	DR113
New Zealand Housing Foundation	069
New Zealand Institute of Surveyors	074
New Zealand Planning Institute	052, DR125
New Zealand Property Investors' Federation	062
New Zealand Public Service Association	DR121
New Zealand Transport Agency	073
Ngāti Tamaoho Trust	DR136
Northland Regional Council	049
Otago Regional Council	015
Palmerston North City Council	026, DR095
Pam Johnston	060
Paul Luckman	DR086
Peter McDermott	014
Phil Hayward	041
Porirua City Council	024, DR088
Property Council New Zealand	033, DR100
Public Health Association	DR115
Queenstown Lakes District Council	056
Raewyn Catlow	DR087
Ralph Broad	003
Registered Master Builders Association of New Zealand Incorporated	023
Retirement Villages Association	005
Sam Price	004
Selwyn District Council	045
SmartGrowth	027, DR106
Stuart Kinnear	029
Tainui Group Holdings Limited	053
Tasman District Council	025, DR096
Taupō District Council	DR093
Tauranga City Council	047, DR102
Te Rūnanga o Ngāi Tahu	063
Te Rūnanga o Ngāti Whātua	DR091
Te Tumu Landowners Group	040

The Sustainability Society	DR137
Toi Te Ora – Public Health Service	DR094
Transpower New Zealand Limited	DR117
Vanessa Scott	037
Vector Limited	011
Vincent Mullins	055
Waikato District Council	012
Waikato Environment Centre	059
Waimakariri District Council	032, DR108
Waipa District Council	DR133
Water New Zealand	030, DR097
Watercare Services Limited	DR129
Wellington City Council	021, DR118
Western Bay of Plenty District Council	036, DR104
Whakatane District Council	DR098
Wilson Penman	001

Engagement meetings

INDIVIDUAL OR ORGANISATION

Absolute Energy Limited
Arthur Grimes
Auckland Council
Auckland Transport
Auckland Unitary Plan Independent Hearings Panel
Bay of Plenty Regional Council
Bill Mitchelmore
Boffa Miskell
Brockie Renovations Limited
Bruce Kohn Communications Limited
Canterbury Earthquake Recovery Authority
Ching Contracting
Chorus Limited
Christchurch City Council
Clark Fortune McDonald & Associates
Commerce Commission
Cranleigh
Davis Ogilvie and Partners Limited
Department of Internal Affairs
Environment Canterbury
Erik van der Wel
Fletcher Building
G.J. Gardner Homes (Nelson)
Golder Associates
Greater Christchurch Urban Development Strategy
Greater Wellington Regional Council
Hamilton City Council
Heritage New Zealand
Hill Young Cooper

Hobsonville Land Company Limited
Home Living Solutions
Housing New Zealand Corporation
ITM Building Centres
Jennian Homes Nelson Bays
John Dare
Key Properties Limited
Land Dimensions Limited
Land Information New Zealand
Listel Subdivisions Limited
Local Government New Zealand
Local Government New Zealand – Metro Meeting
Malcolm Macdonald
Martin Jenkins
Massey University – School of People, Environment and Planning
McConnell Property
Mike Greer Homes Ltd
Millbrook Resort Queenstown
Ministry for the Environment
Ministry of Business, Innovation and Employment
Ministry of Transport
Nelson City Council
Nelson Tasman Chamber of Commerce
Nelson Tasman Housing Trust
New Zealand Bankers' Association
New Zealand Housing Foundation
New Zealand Planning Institute
New Zealand Planning Institute – Wellington Branch
New Zealand Society of Local Government Managers
New Zealand Transport Agency
New Zealand Treasury
Northland Regional Council
Ockham Residential
Otago Regional Council
Parliamentary Commissioner for the Environment
Projects and Ventures Limited
Property Council New Zealand
Property Council New Zealand Bay of Plenty
Queenstown Lakes Community Housing Trust
Queenstown Lakes District Council
Reserve Bank of New Zealand
Ryman Healthcare
Selwyn District Council
Shotover Country
SmartGrowth
Spraggs Group Limited
State Services Commission
Stonewood Homes Nelson
Tainui Group Holdings

Tama Potaka
Tasman District Council
Tauranga City Council
The Neil Group Limited
The New Zealand Initiative
Todd Property Group
University of Auckland – School of Architecture and Planning
Urban Economics
Vector Limited
Waikato District Council
Waikato Regional Council
Waimakariri District Council
Waipa District Council
Wakatū Incorporation
Water New Zealand
Watercare
Wellington City Council
Wellington Electricity
Wellington Water
Western Bay of Plenty District Council
Whangarei District Council
Woodlot Properties

OFFICIALS' ROUNDTABLE

The Treasury
Department of Internal Affairs
Ministry for the Environment
Ministry of Business, Innovation and Employment

AUSTRALIA

Brisbane City Council
City of Melbourne
Department of Planning and Environment (New South Wales)
Department of State Development, Infrastructure and Planning (Queensland)
Economic Development (Queensland)
Housing Industry Association
Metropolitan Planning Authority (Victoria)
National Housing Supply Council (New South Wales)
Professor Judith Yates (The University of Sydney)
Professor Nicole Gurran (The University of Sydney)
Property Council of Australia (New South Wales)
Property Council of Australia (Queensland)
Property Council of Australia (Victoria)
Reserve Bank of Australia
Urban Grown New South Wales

UK STUDY TOUR

Participated in a study delegation to the United Kingdom (London and Manchester): "Nation building infrastructure and urban development" (organised by the New Zealand Council of Infrastructure Development, and UK Trade and Investment) (10–13 November 2014).

Seminars

University of Otago – Sustainable Urban Transport
University of Otago – Urban Health and Sustainability: Affordable Housing

Conferences

Making Cities Liveable Conference – Liveable Cities for the Future
New Zealand Council for Infrastructure Development – Building Nations Symposium

Appendix B Land assembly and compulsory acquisition

Property rights

Private property rights serve essential economic purposes. The presence of property rights – and their protection and enforcement by the state – creates incentives for work, risk-taking, investment and trade, because it prevents the more powerful seizing the fruits of these activities. It means individuals can redirect resources away from protecting their property by force towards more productive activities. It reduces the risk of economic activity and so increases expected returns, in turn enabling more investment and economic activity. In this way, private property rights serve to advance peace, science, and the wellbeing of individuals and the community. They are an essential component of freedom, recognised throughout history from Magna Carta to the Universal Declaration of Human Rights.

Yet property rights are not absolute. In *Entick v Carrington* (1765) (which established that the Executive can only act within the law), Lord Camden wrote:

> The great end, for which men entered into society, was to secure their property. That right is preserved sacred and incommunicable in all instances, where it has not been taken away or abridged by some public law for the good of the whole. The cases where this right of property is set aside by private law, are various. Distresses, executions, forfeitures, taxes etc are all of this description; wherein every man by common consent gives up that right, for the sake of justice and the general good. By the laws of England, every invasion of private property, be it ever so minute, is a trespass. No man can set his foot upon my ground without my licence, but he is liable to an action, though the damage be nothing; which is proved by every declaration in trespass, where the defendant is called upon to answer for bruising the grass and even treading upon the soil. If he admits the fact, he is bound to show by way of justification, that some positive law has empowered or excused him. The justification is submitted to the judges, who are to look into the books; and if such a justification can be maintained by the text of the statute law, or by the principles of common law. If no excuse can be found or produced, the silence of the books is an authority against the defendant, and the plaintiff must have judgment. (at 1066)

Private property rights should only be restricted in accordance with the law where doing so is in the public interest.

Economics of land assembly

Miceli and Segerson (2007) note that, from an economic perspective, the compulsory acquisition of property for public purposes is not substantively different from regulating property use to control externalities:

> In both cases, the government imposes a cost on the landowner in order to provide a social benefit, where the action is justified on efficiency grounds only if the gain (whether in the form of benefit conferred or a harm prevented) exceeds the cost. (p. 3)

Miceli (2011) outlines that holdouts impose a supply-side externality, with the direct implication that government can correct the allocative inefficiency through compulsory acquisition (known as "eminent domain" in the United States). The inefficiency of holdouts where projects require the assembly of contiguous parcels of land held in diverse ownership has been explained in various ways.

- Once the nature of the project is known, landowners gain significant monopoly powers to seek prices significantly in excess of the fair value of the land. In addition, holdouts increase transaction costs (Munch, 1976; Posner, 2003).
- Given that multiple sellers have to agree before a project can proceed, individual owners have an opportunity to engage in rent-seeking (Goldberg, 1985).
- It can be characterised as an anti-commons problem, in which multiple owners each hold effective rights of exclusion over a scarce resource (Heller, 1998).

- Menezes and Pitchford (2004) examine holdouts from the perspective of a non-cooperative bargaining game; they assume all mutually beneficial transactions are eventually completed, and the inefficiency arrives due to a cost of delay. Cai (2003, 2000) shows that infinite delay is a possible outcome of an assembly game, and that the threat of delay increases with the number of sellers.
- Miceli and Segerson later (2012) reframe the holdout problem as emerging through ordinary sequential bargaining. In their model, prices rise as the purchaser negotiates with each landowner; the final seller receives that highest price; and by the end the price paid to all sellers may exceed the value of the project to the buyer.

Most states provide power for the government to acquire property for public purposes, with compensation. However, some authors (eg, Posner, 2003) have pointed out that, purely as a solution to the problem of holdouts, such powers would be justifiable for private purposes too.

Compulsory acquisition of property for public use

Compulsory acquisition of property by the State is usually held to be justified if it is in the public interest, and if just compensation is given for the property taken.

Merrill (1986) distinguishes between the "ends approach" to justifying compulsory acquisition, which describes whether or not the land is for public use, and the "means approach", which deals with whether the land being acquired involves an assembly problem. Miceli and Segerson provide the following taxonomy (Table B.1).

Table B.1 Ends and means approaches to land acquisition

	Private purpose	Public purpose
No assembly: project does not require the assembly of land	For example, the sale of a single parcel of land from one party to another. Neither "means" nor "end" approaches justify compulsory acquisition, even if one of the parties is the government.	For example, acquiring a single parcel of land to build a police station. While the "ends" approach would justify compulsory acquisition, the "means" approach does not because there is no assembly.
Assembly: project does require the assembly of land	Large real estate developments involving several parcels of land. The "means" approach justifies compulsory acquisition because of assembly holdout problems, but the "ends" do not because the acquisition is for a private purpose.	For example, acquiring several parcels of land for a motorway. Both the "ends" and the "means" approaches justify compulsory acquisition.

Source: Miceli & Segerson, 2007.

Miceli and Segerson say that in the *no assembly/public purpose* case, it is appropriate for government to use taxes to acquire the land in a consensual transaction, rather than compulsorily acquiring the land. It is notable that, in New Zealand, the Public Works Act 1981 appears to provide for compulsory acquisition in this situation (ie, it does not reserve compulsory acquisition to situations involving an assembly problem).[57]

The authors note that where US courts have allowed *assembly/private purpose* cases of compulsory acquisition (as in the case of *Kelo v New London*), the courts have tended to emphasise public benefits (such as jobs and tax revenue) even when the justification is really overcoming assembly holdouts. But they also note (citing Cooter, 1985) that contract law and the law of nuisance can result in outcomes that are indistinguishable from this in economic terms – where a party can unilaterally walk away from a contract by paying damages, or where a party creating a nuisance can pay damages rather than ceasing the harm.

[57] Other academics have argued that the use of this power will be "self-limiting" due to the high costs of by-passing the market (Fischel, 1995; Merrill, 1986).

Compensation for compulsory acquisition

A traditional approach to compensation for compulsory acquisition is the payment of "fair market value" for the property. But owners whose subjective value is higher than the market would not consent to sell at that price. A fair solution would be to compensate at each owner's subjective value, but this is not observable, in particular because of the opportunities provided by the assembly holdout problem. Assessed market value is seen as a practical compromise.

Epstein (1985) says that the use of market value is justifiable where the benefits of the project will be widely distributed, saying "the compensation requirement of the eminent domain clause is as much concerned with the distribution of gains and losses between persons as with their aggregate amount" (p. 115). Therefore much depends on whether the compulsory acquisition creates sufficient public benefits.

Economic literature on how compensation is paid has also focused on avoiding any moral hazard that might cause landowners to overinvest in land that may subsequently be taken for public use. Blume, Rubinfeld and Shapiro (1984) argue that the only efficient outcome to this problem is to pay no compensation. But objections to doing this include:

- compensation discourages the government from acquiring too much land for public use (Johnson, 1977);
- not paying compensation can encourage development earlier than is efficient, so as to discourage government taking the land (because government will face higher costs using land that is already developed);
- private insurance against compulsory acquisition is not available, so compensation is justified (Blume & Rubinfeld, 1984); and
- compensation avoids demoralisation costs – discouraging owners from investing in their land where it is efficient to do so (Michelman, 1967).

Implications for urban development

Miceli and Sirmans (2007) discuss the holdout problem in the context of urban development. In a standard mono-centric city model, lot sizes decrease towards the city centre (in part because land prices are higher and so cause developers to substitute capital for land, leading to denser development). Ownership of a given area of land therefore is more dispersed in the centre of the city than at the fringe, where average lot sizes are larger. A consequence of this is that the costs of the assembly holdout problem are greater in the centre:

> The implication is that, compared to the situation without assembly, the optimal location choices of developers will be systematically biased outward, toward the urban fringe, where ownership is more consolidated and assembly costs are therefore minimized. (p. 316)

Other land assembly mechanisms

Compulsory acquisition is not the only approach to overcome holdout problems. The use of "dummy buyers" is the only fully private mechanism to assemble land while overcoming holdout problems. Where developers can maintain secrecy about their identity through agents, they may be able to assemble land without alerting vendors that they can hold out (Grossman & Hart, 1980; Cohen, 1991). Yet secrecy is difficult to maintain; at which point assembly projects are subject to collapse (Box B.1). It is particularly impractical for public organisations to maintain secrecy about projects.

Box B.1 **Disney's "dummies"**

Following the success of Disneyland in California, Walt Disney began plans to establish two new theme parks: Disney World in Florida, and Disney's America in Virginia. To assemble the significant tracts of land required, Disney engaged in elaborate attempts to disguise the assembly:

> One of the primary impediments to secret assemblies of land is that the advantage of secrecy lasts only so long as the principal's identity, in fact, remains secret. If the secret is discovered, the land

assembly process transforms into a mirror image of the bifurcated process of land assembly. To assemble the land required for "Disney's America" in Virginia, for example, Disney established a network of dummy corporations and engaged "buyers" (lawyers) in different states to handle the transactions. Disney also created a paper intermediary through which all monetary transactions were funneled and took steps to prevent "buyers" from discovering one another's identities, even if they worked at the same firm. If those measures were not enough, Disney channeled all mail concerning the transactions through one office that "meticulously switched" envelopes, and telephone calls were made using a "special 800 number that could not be traced." Despite these efforts, *The Washington Post* went public with Disney's identity, which had the effect of transforming remaining property owners into holdouts. At that point, Disney's choices were identical to those facing land assemblers using the bifurcated process: continue negotiations, forego acquisition of holdout properties or the project in its entirety, or ask local government to use eminent domain. Disney ultimately shelved its plans for "Disney's America" amid concerns about the park's proximity to the Civil War battlefield at Manassas, the environmental impact of the park, and the nature of exhibits to be displayed at the park.

Beyond the internal transaction costs associated with maintaining secrecy until assembly is complete, the strategy works best in contexts where external transaction costs are low. During a flight over central Florida in 1963, for example, Walt Disney identified a "wasteland southwest of Orlando where alligators outnumbered people" for development. By 1965, Disney had purchased more than 25,000 acres of land "under a strict cloak of secrecy" from owners who "were glad to sell dirt cheap" because the property could not be used for agricultural purposes. A major part of Disney's successful assembly derived from the combination of a small number of property owners with the limited utility of the desired properties. Because the "sludgy terrain was useless for agriculture" and "far from Florida's beaches," the objective fair market value of the properties was not nearly as high as in other parts of the state. Furthermore, the subjective value of many of the properties was also low because their owners obtained title to the properties by inheritance and had never seen the properties. Thus, the transaction costs associated with Disney's secret purchases were low, which facilitated the sales.

Source: Lopez, 2011, pp. 801–802.

Most other land assembly mechanisms that seek to overcome holdout problems require government involvement. A large number of such mechanisms, proposed in the literature, seek to ensure that efficient developments proceed (where the value of the assembled properties exceeds the sum of the individual property values), and that landowners receive fair compensation given their individual subjective valuations of their land.

- In Land Assembly Districts, landowners in a district designated for acquisition would establish a collective to negotiate on their behalf. Landowners receive a share of votes proportional to the assessed value of their property, and can agree to a sale by a qualified majority (Heller & Hills, 2008). This mechanism does not ensure that each owner receives their true subjective value (because allocation is based on assessed value), or that only efficient developments proceed.

- Shapiro and Pincus (2009) propose an auction mechanism. All owners in an area for acquisition nominate a sale price for all the properties; the highest nominated price becomes the reserve in an auction among developers for rights to the properties. Where a bid is successful, each owner receives a share of the price according to the assessed value of their property. This provides an incentive for each landowner to reveal their true subjective valuation of the property. But such an outcome can prevent efficient developments from going ahead, because the highest total price nominated (the reserve) can easily be higher than the sum of the individual valuations (Miceli, 2011).

- Lehavi and Licht (2007) accept a need for compulsory acquisition, but separate that decision from the problem of compensation by establishing a company in which all landowners have shares, proportional to an assessed value of their respective properties. Each owner can sell their shares to the government at the assessed price; if they do not, the company will sell them to developers (by negotiation or auction). This mechanism does not ensure that only efficient developments proceed, or that each landowner receives their subjective valuation in compensation (as subjective value is not considered).

- Bell and Parchomovski (2007) suggest a self-assessment model in which the property's value is assessed, and the owner nominates a desired price. If the landowner will not sell at the assessed value, they are taxed on the difference between the nominated and assessed value, and are forbidden for life from selling at less than the nominated price. However, according to Plassmann and Tideman (2011), it seems impossible to calibrate the tax perfectly so as not to provide incentives to over-nominate or under-nominate a desired value; and the prohibition on sale does not account for where an owner's subjective valuation changes in the future.

- Under the "Clarke mechanism", the government announces a compensation value to all landowners, and asks each landowner to specify a price they would pay to have the development proceed or be cancelled, given the compensation on offer. Some owners may be willing to pay to receive the compensation; others willing to pay to retain their property. Where the net willingness to pay for the development to proceed is positive, the assembly occurs and each owner receives the initial proposed compensation value; where it is negative, assembly does not occur. To induce owners to accurately assess their willingness to pay, any "pivotal" owners (those whose individual assessment causes the net willingness to pay for the development to proceed to shift between positive and negative) pay a "Clarke tax" proportional to how pivotal their willingness to pay was to the development proceeding or not. This provides for efficient developments to proceed, but does not ensure each owner receives their subjective value because the total compensation value has no reference to subjective value (and pivotal owners can be worse off). (Plassmann & Tideman, 2011).

- Miceli, Segerson and Sirmans (2008) have proposed a mechanism that ensures only efficient development occurs, and that each owner receives full compensation. But it requires that the owners have identical subjective valuations of their property; so, for practical purposes, it can be dismissed.

- Plassmann and Tideman (2011) propose a mechanism in which the government requires every landowner to state a selling price for their property. Owners pay a tax on the nominated value (discouraging overstating the value) and are required to sell to a developer at the stated price (discouraging understating the value). The authors discuss various mechanisms to compensate all landowners so that the tax is returned to the owners (collectively) in a way that does not distort the nominated values. However, the owners, in nominating a correct value, must believe that their marginal valuation tax equals the probability that a developer will assemble the properties at the nominated prices. In essence, the owners need to believe that the government has set the tax by accurately assessing the likelihood of developers assembling.

Few mechanisms ensure that only efficient developments proceed (where the value of the assembled land is greater than the sum of the owners' subjective valuations) and that owners are compensated for their subjective valuations. The few such mechanisms that may exist rely on unreasonable assumptions (eg, that government can correctly predict the likelihood of developers purchasing land at given prices).

Risks of compulsory acquisition

Using compulsory acquisition has potential problems.

- Compulsory acquisition will not discriminate between owners whose reason for holding out is sincere rather than strategic. In this case, the property is forcibly transferred from a user who values it higher than a user who values it lower, decreasing allocative efficiency (López & Clark, 2013).

- Compulsory acquisition may be more easily applied in poorer areas, because values and compensation will be lower; and also because those communities are less able to resist the acquisition through political or legal channels (López & Clark, 2013). Where compulsory acquisition is used to regenerate blighted areas of a city, it may lead to a more efficient use of land from a city-wide perspective, at the potential cost of equity (from displaced people).

- Developers may have an incentive to rent-seek, lobbying for the use of compulsory acquisition powers against owners who are not true holdouts (López & Clark, 2013).

- If property is systematically undervalued (Chapter 4 considered some evidence that bare land may be systematically undervalued compared to improved land), compulsory acquisition can lead to over-assembly (Miceli, 2011).

In principle, these risks apply to the compulsory acquisition of land for infrastructure in New Zealand under the Public Works Act 1981. However, compulsory acquisition powers risk being increasingly overused if they are exercised by an agency with commercial development functions. In the United Kingdom, and in Victoria, Australia, the use of compulsory acquisition powers requires the approval of the relevant minister.

In New Zealand, the exercise of compulsory acquisition powers is also subject to judicial review. The courts have said that a public body invested with statutory powers of compulsory acquisition must take care not to exceed or abuse its powers; it must act in good faith; and it must act reasonably (*Mayor of Westminster v London and North Western Railway Co* (1905)). In *Seaton v Minister for Land Information* (2012), the courts held that the Minister had exercised his powers of compulsory acquisition under the Public Works Act for an improper purpose (to retain benefits for private third parties).

Compulsory acquisition powers can be effective without being exercised

In many cases, the exercise of compulsory acquisition powers may be unnecessary where the existence of such powers is sufficient to encourage a negotiated acquisition. Section 18 of the Public Works Act 1981 requires the minister or authority acquiring the land to "make every endeavour to negotiate in good faith with the owner in an attempt to reach an agreement for the acquisition of the land".

Negotiated acquisition has a number of benefits compared to compulsory acquisition:

- it can be faster, as it avoids the waiting period before the land can be compulsorily acquired, and avoids the time taken by any legal challenges;
- it can be cheaper, not necessarily in terms of payment for the land but in terms of avoiding any costs associated with hearings at the Environment Court or the Land Valuation Tribunal;
- it may be perceived as less heavy-handed, particularly as the owner must consent to the sale; and
- it can more easily accommodate other preferences of the owner, such as the settlement date.

In a 1997 study by Almond and Plimmer, the authors surveyed British organisations that have powers of compulsory acquisition. Of the respondents, 80% had acquired land by agreement rather than through the use of compulsory acquisition powers; and 97% said that acquiring by agreement was preferable to compulsory purchase. The authors concluded:

> The research has demonstrated that providing a body is not making an unlawful acquisition, then it is certainly more appropriate to acquire by agreement, given that the vendor is likely to receive compensation on the same basis as under a compulsory acquisition, with the acquisition being less bureaucratic, faster, and allowing for flexible negotiations … At the same time, a balance needs to be maintained, because in certain circumstances, such as highways or slum clearance schemes, a CPO [compulsory purchase order] will be necessary in order to acquire all the interests within a given timescale. (p. 5)

This was also the experience of Australian and British public agencies with powers of compulsory acquisition that the Commission spoke to. They emphasised the value of the powers in bringing people to the table, but said in a vast majority of cases the sale was consensual.

Alternative compensation approaches may assist in encouraging sale by agreement; for example, the option of a share in the development venture rather than cash (Lehavi & Licht, 2007). Yet the threat of acquisition is still coercive, and a willingness to exercise the compulsory acquisition powers is needed.

Compulsory acquisition for development in other countries

Local authorities in the United Kingdom have power, under the Town and Country Planning Act 1990, to take land for redevelopment, with the assent of the Secretary of State; and various Urban Development Corporations established under the UK's Local Government, Planning and Land Act 1980 have the same

powers. The State of Victoria's government development corporation, Places Victoria, has the power to take land within designated redevelopment areas, with the approval of the Minister of Planning, and has done so, although not in recent years.

A recent report by the McKinsey Global Institute (2014) asserts that "unlocking land supply at the right location is the most critical step in providing affordable housing" (p. 7). Its investigation across different countries points to the common problem of complex ownership structures and fragmentation of land parcels holding back development, even where land is vacant and underused or properties are dilapidated. The report argues that this may mean that governments have to acquire or expropriate such land using compulsory acquisition powers, or to facilitate the pooling of land by existing owners in a participative way. The report identifies approaches used overseas to spur development through land assembly (Box B.2).

Box B.2 **Overseas approaches to land assembly**

Public authorities often have extensive powers to assemble land for housing and other uses. In the Netherlands, municipal land companies purchase land under land assembly plans and have pre-emption rights over other buyers, including an option to expropriate land at existing-use value (before value gains from redevelopment) and pay compensation to individuals from the income from new developments. In Spain, the law similarly grants municipal developers the right to acquire land at existing-use value.

When land is assembled, owners are paid for their land or receive a new land parcel in the developed site, land at another site, a developed unit, cooperative housing, or equity in the development group. Public land-banks are a common instrument for holding a share of the assembled land, which is used to develop public amenities or sold to finance public infrastructure.

The acquisition process for land assembly begins with an overall development plan of a public or private developer that identifies public and private parcels required for a development site, and an assembly scheme. In the most basic approach, the developer or authority simply purchases all required land from owners, either through mutual agreement or expropriation (with proper notification and compensation). Alternatives are "land swaps" and "land sharing". Land swaps (exchanges of parcels) have been used in cities such as Arlington, Virginia; Dublin, Ireland; and Vancouver, British Columbia, to build affordable housing.

Land-sharing schemes can help avoid relocation. In land-sharing schemes, the developer or authority allows landowners to remain on part of the land and develops the most economically attractive parts. Another commonly used approach is land pooling or land readjustment, in which the developer or public authority assembles numerous parcels, subdivides the whole, and prepares the land for use (bringing in roads and other infrastructure, for example). Then the public authority returns parts of the land to owners in proportion to their original parcels and sells the remainder to cover costs.

Land readjustment has been used extensively in Japan, South Korea, and in the Indian state of Gujarat. The origins of this approach date back to early 20th century, taking its roots from the "Lex Adickes" laws that permitted the redevelopment of Frankfurt. During the development, a project organisation, either public or private, readjusts lots based on a publicly approved plan and develops infrastructure such as roads, parks, and water systems. A specified share of the landowners needs to approve the plan. Sale of "reservation land" taken from landowners covers the cost of development. The owners benefit from land-value increases after development. Japan applied land readjustment extensively after the Kanto earthquake in 1923 and after the Second World War, helping close a post-war housing shortage of more than two million units by 1964. By 2000, about 30% of the total urban area in Japan had been developed using this approach.

Source: McKinsey Global Institute, 2014.

Appendix C Updating the analysis of Auckland's Metropolitan Urban Limit on land prices

This appendix updates the analysis in the Commission's *Housing affordability* inquiry (2012a) on the impact of Auckland's Metropolitan Urban Limit (MUL) on land prices.

Model and data

In this analysis, real median land prices – $ per square metre in constant 1995 prices[58] – are modelled at the meshblock level across the Greater Auckland region.[59] Median land prices are weighted medians for two main types of dwellings – residential dwellings and lifestyle dwellings. These properties usually have detached or semi-detached dwellings on clearly defined sections and make up over 70% of the total number and value of dwellings in the Auckland region.

The regression used in this analysis includes data on the distance to 21 local centres within Auckland and Auckland central. It also includes dummy variables for urban versus rural meshblocks and the "old" seven local authority dummies.

Dummies to capture the impact of the MUL on land prices are also included. Each meshblock is assigned into one of four categories depending on its distance to the MUL boundary.[60] The categories are: greater than 2km inside the MUL (MUL1), 2km within the MUL (MUL2), 2km outside the MUL (MUL3), and greater than 2km outside the MUL (MUL4).

The regression model is as follows.

$$\ln(y_i) = \theta_2 MUL_2 + \theta_3 MUL_3 + \theta_4 MUL_4 + \sum_{k=1}^{21}(\beta_k dist_{ik} + \gamma_k \ln(dist_{ik})) + \delta_1 CBD_i + \delta_2 \ln(CBD_i) + \pi URBAN_i +$$
$$\rho_2 Franklin_i + \rho_3 Manukau_i + \rho_4 NorthShore_i + \rho_5 Papakura_i + \rho_6 Rodney_i + \rho_7 Waitaker e_i + a + \varepsilon_i$$

Where:

1. $\ln(y_i)$ is log real land price for each hectare in meshblock i.
2. MUL_2, MUL_3 and MUL_4 are the dummies capturing the distance from each meshblock to the MUL boundary, as described above. MUL_1 is set as the baseline.
3. $dist_{ik}$ and $\ln(dist_{ik})$ are linear and log linear distances between k local centres and meshblock i. Distance is truncated at 5km for *dist* and ln(5)≈1.6 for ln(*dist*) if distances to any local centre are greater than 5km.
4. CBD_i and $\ln(CBD_i)$ are linear and log linear distances between Auckland central and meshblock i. Auckland central is set at Britomart.
5. *URBAN* is an urban dummy, as defined by Census classification in 2006.
6. Franklin, NorthShore, Waitakere, Papakura, Rodney and Waitakere are dummies for the "old" seven local authorities. Meshblocks located in Auckland city are set as a baseline.
7. a is an intercept and ε_i are residuals, assumed to be normally distributed.

[58] Land price is deflated by the consumer price index from Statistics New Zealand.

[59] Greater Auckland region contains seven "old" Auckland local authorities – Rodney, North Shore, Waitakere, Auckland City, Manukau, Papakura and Franklin. Land price data is the land value portion of quotable residential values supplied by CoreLogic, who own the brand of Quotable Value New Zealand.

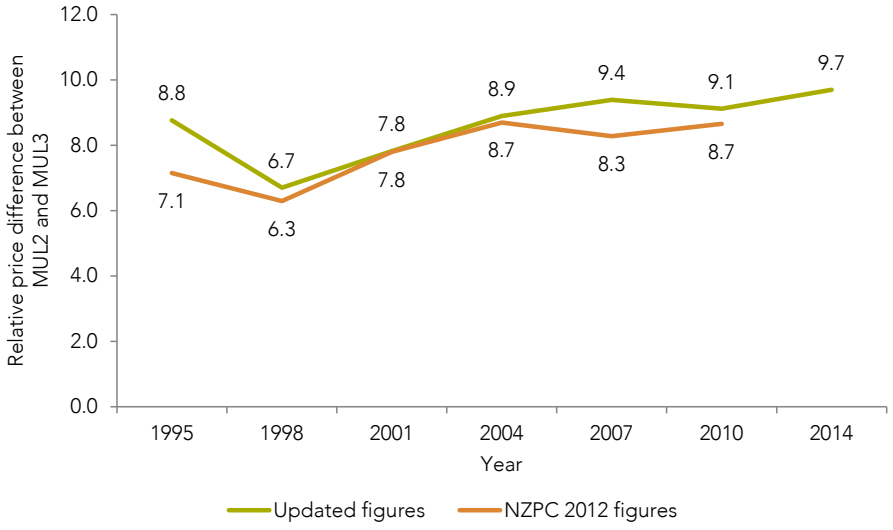
[60] MUL boundary is based on the version in 2009.

The regression is estimated using the "robust regression" technique, with Ordinary Least Square (OLS) estimator used for sensitivity analysis. The robust regression estimator down-weights the influence of noise.[61] To estimate the above regression, this technique is implemented in such a way that it identifies between 1% and 5% of observations as noisy outliers. To compare the impact of the MUL on land prices over time, the regression is separately estimated in each year that data are available.

Results

The impact of the MUL is assessed as the difference between the dummy variables MUL_2 and MUL_3. That is, the values of land within 2km inside the MUL relative to land situated within 2km outside the MUL once the impact of the other factors captured by the regression are accounted for. Results based on updated land price data are similar to those reported in the Commission's *Housing affordability* inquiry in 2012 (Figure C.1). Both indicate that the MUL has a large impact on land prices that has generally increased since 1998. By 2014, land just inside the MUL is estimated to be almost 10 times more expensive than land just outside the MUL, once other drivers of land prices are accounted for.

Figure C.1 Estimated impact of MUL on Auckland's land prices



Source: NZPC, 2012a; Productivity Commission analysis of Quotable Value data.

Notes:

1. Estimates are based on Huber's robust regression, with the tuning parameter equal to 4.5.

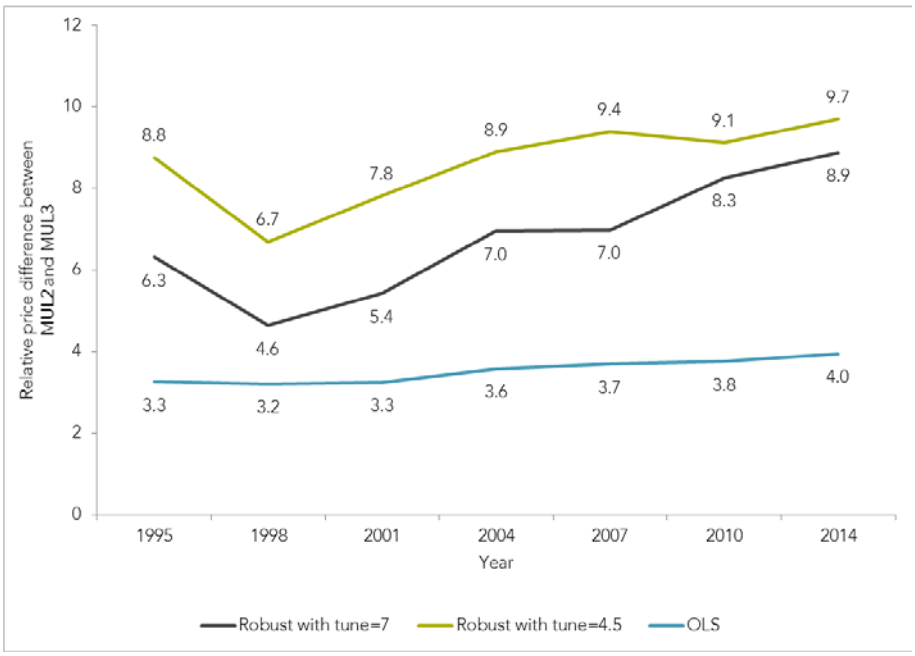
Sensitivity analysis

It is important to recognise that these estimates are sensitive to the technique used to estimate the regression. For example, if OLS is used to estimate the regression, the ratio of the price of land just inside and just outside the MUL drops to around 4. Similarly, changing the tuning parameter in the robust regression also results in differences in the estimated impact of the MUL. This indicates that considerable care and attention needs to be taken in estimating the ratio of land prices across zoning boundaries.

In the case of the MUL, while different estimators indicate different levels of distortion in land prices across the MUL, all show an increasing trend over time. This is consistent with an increasing impact of the MUL on land prices over time.

[61] Huber's robust regression (or M-estimator) form is implemented with two alternative tuning parameters: 4.5 and 7 (the default). The tuning parameter sets the selection criterion for outliers. Smaller values of the tuning parameter result in more outliers and penalises that are giving a smaller weighting in the estimation. Sometimes, robust regression estimates are not robust if the Huber parameter is too large (down-weights too few outliers) and too small (down-weights too many outliers, including good data).

Figure C.2 Comparing estimated impact of Auckland's MUL on land price by different estimators



Source: Productivity Commission estimates.

Notes:

1. Both robust regressions are based on Huber's estimator or M-estimator, with two alternative tuning parameters: 4.5 and 7.

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