NEW ZEALAND
PRODUCTIVITY COMMISSION
Te Kōmihana Whai Hua o Aotearoa

Using land for housing

Draft report

June 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. We wish to gather ideas, opinions, evidence and information to ensure that our inquiries are well-informed and relevant. The Commission is seeking submissions on the draft findings and recommendations and the questions contained in this report by 4 August 2015.

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

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To find out more about the Commission, visit www.productivity.govt.nz, or call +64 4 903 5150.

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Some of the results in this report are created from Statistics New Zealand Longitudinal Business Database and Statistics New Zealand Survey of Family, Income and Employment. Results based on these data are not official statistics, they have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by Statistics New Zealand.

The opinions, findings, recommendations, and conclusions expressed in this report are those of the New Zealand Productivity Commission, not Statistics New Zealand.

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Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from www.stats.govt.nz.

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

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

About the draft report

This draft report aims to assist individuals and organisations to participate in the inquiry. It outlines the background to the inquiry, the Commission's intended approach, and the matters about which the Commission is seeking comment and information.

This draft report contains the Commission's draft findings and recommendations. It also contains a limited number of questions to which responses are invited but not required. The Commission welcomes information and comment on all issues that participants consider relevant to the inquiry's terms of reference.

Key inquiry dates

Release of draft report	17 June 2015
Submissions due on the draft report	4 August
Final report to the Government	30 September

Why you should register your interest

The Commission seeks your help in gathering ideas, opinions and information to ensure this inquiry is well informed and relevant. The Commission will keep registered participants informed as the inquiry progresses.

You can register for updates at www.productivity.govt.nz/subscribe-to-updates, or by emailing your contact details to info@productivity.govt.nz.

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Why you should make a submission

Submissions provide information to the inquiry and help shape the Commission's recommendations in the final report to the Government. Inquiry reports will quote or refer to relevant information from submissions.

How to make a submission

The due date for submissions in response to this report is **4 August**. Late submissions will be accepted, but lateness may limit the Commission's ability to consider them fully.

Anyone can make a submission. Your submission may be written or in electronic or audio format. A submission may range from a short letter on one issue to a substantial response covering multiple issues. Please provide relevant facts, figures, data, examples and documents where possible to support your views. The Commission welcomes all submissions, but multiple, identical submissions will not carry more weight

than the merits of your arguments. Your submission may incorporate relevant material provided to other reviews or inquiries.

Your submission should include your name and contact details and the details of any organisation you represent. The Commission will not accept submissions that, in its opinion, contain inappropriate or defamatory content.

The Commission appreciates receiving an electronic copy of posted submissions, preferably in Microsoft Word or searchable PDF format. Please email the files to info@productivity.govt.nz.

What the Commission will do with the submissions

The Commission seeks to have as much information as possible on the public record. Submissions will become publicly available documents on the Commission's website. This will occur shortly after receipt, unless your submission is marked "in confidence" or you wish to delay its release for a short time. Please contact the Commission before submitting "in confidence" material, as it can only accept such material under special circumstances.

Other ways you can participate

The Commission welcomes feedback about its inquiry. Please email your feedback to info@productivity.govt.nz or contact the Commission to arrange a meeting with inquiry staff.

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Overview

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. Comparable overseas systems should also be investigated where they provide valuable lessons for New Zealand.

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, enhancing the productivity of the economy. Providing an adequate supply of land and development capacity for housing, and the associated improvement in housing affordability, have the potential to lift the living standards of many New Zealanders.

Strong population growth but housing supply struggling to keep pace

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 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 where housing is in short supply, 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, both brownfields and greenfields. Land values have grown more quickly than total property values over the last 20 years, indicating that appreciating land values have been a key driver of house price inflation in New Zealand. 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 as much as 60% of total property value, compared with about 40% 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 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 (NZPC, 2012). Importantly, without greater land supply, any construction efficiencies are likely to accrue to landowners, rather than home buyers.

Substantial benefits are on offer

A recent 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 Global 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 can impact on the functioning of the national economy. A recent research paper published by the National Bureau of Economic Research in the United States (Hsieh & Moretti, 2015) suggests that releasing adequate land and development capacity, by lifting barriers to urban growth, could raise Gross Domestic Product in the United States by as much as 9.5%. Much of the productivity gains are from workers being able to locate and work in cities that offer higher productivity and higher-wage jobs. It is difficult to think of many other policies that would yield such an improvement in a 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, and provide infrastructure efficiently and in a way that is responsive to demand?
- Can the current system be made to work better for New Zealanders?
- Is a different institutional framework required to deal with the complexity, negative effects and coordination problems faced by our fastest growing cities?

A spectrum of possible improvements has been identified, ranging from incremental to more fundamental change.

Cities, growth and land for housing

Cities are national assets. When cities function well, they provide greater choices of employment and more opportunities for specialisation, and they have higher incomes and productivity than other areas. This is because firms located in close proximity to each other can take advantage of having access to a wider pool of skilled labour, better links to markets for both inputs and outputs, and the ability to share knowledge. However, the concentration of people and businesses in cities also creates costs, such as pressure on infrastructure and on the availability of housing. This puts a premium on good city organisation and on the ability to plan for growth.

Population growth in New Zealand has been strong over the last decade. The supply responsiveness of the housing market influences the degree to which an increase in housing demand leads to more housing or to higher housing prices. If the supply of housing is constrained in some way, then increased demand will tend to feed into higher housing prices, rather than an expansion in housing supply. The extent to which new housing can be constructed in response to changes in demand is determined by a number of factors, including:

- the constraints of local geography;
- land use and planning regulations that determine how much land is available for new dwellings or how intensely it can be used for housing;
- the ability to service land with infrastructure to support new housing; and
- the extent to which the construction sector can gear up and build the type of housing demanded.

These factors can act in tandem to constrain housing supply. For example, Saiz (2010) found that US cities that were naturally geographically constrained also had the strictest regulatory constraints. One explanation for this is that geographically constrained cities are likely to have higher land values, and so citizens have greater incentives to use the political process to push for regulation that protects those values.

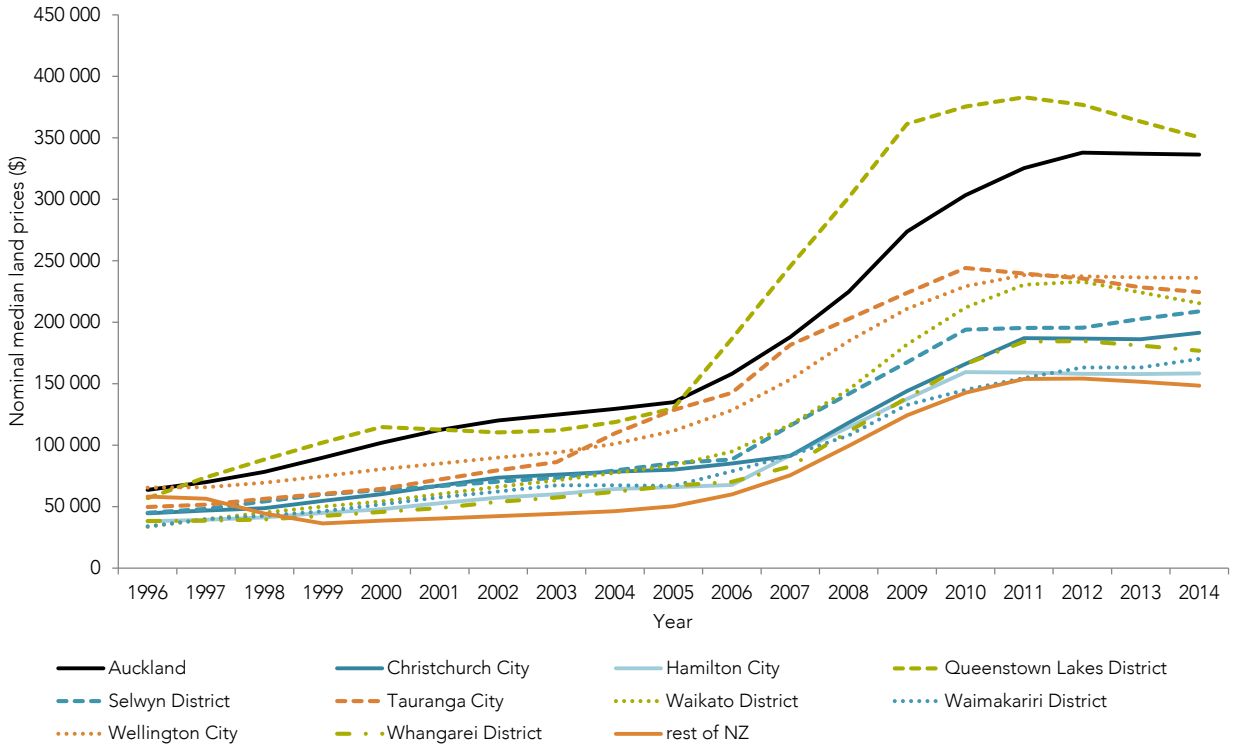
In the absence of constraints, cities will respond to population increases by making more efficient use of land, increasing density through building higher buildings and smaller dwellings in their centres.

The functioning of cities can also be enhanced by well-targeted policy interventions, such as investments in transport infrastructure. Yet the interest of the nation in having cities grow may not be reflected in local choices and planning systems. Local residents may not wish to bear the costs of growth (eg, congestion) and may act to slow or constrain the development of their cities. Existing homeowners also benefit from policies that restrict the supply of new dwellings, as they help keep the price of housing high.

The Commission has found that New Zealand cities have different density profiles. Wellington, for example, has seen significant intensification close to the city centre. In contrast, in some other cities the biggest contribution to intensification has occurred in outlying suburbs. This suggests barriers to intensification in and near the centre of these cities.

The demand for housing and the impact of local policies that constrain supply is reflected in land values in New Zealand's major cities and high-growth areas. Land values have increased significantly since the middle of the last decade (both in nominal terms and as a share of total property values) (Figure 1).

Figure 1 Nominal median land values



Source: Productivity Commission analysis of Quotable Value data.

High land prices encourage the production of larger and more expensive housing. In New Zealand, the average size of new dwellings has increased by more than 50% since 1989. More than half of the new builds in New Zealand in 2014 were valued in the upper quartile of all housing stock, driven by the price of land.

Concerns about the ability of New Zealand's planning systems to respond to the need for new housing, and about the extent of constraints placed on development, are not new. However, population growth over the past decade has highlighted the pressing nature of the problems that cities and other high-growth areas face in meeting the demand for housing. Easing unnecessary constraints and providing the development

capacity for new housing allows cities to grow. It is in the nation's interest to have its citizens able to take advantage of the greater employment and life opportunities available within vibrant and productive cities.

The planning system can work better

The 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 (RMA) 1991 authorises, limits or prohibits the use of land, so as to promote "sustainable management";
- the Local Government Act (LGA) 2002 establishes processes to shape the provision of infrastructure that is needed to make land viable for housing; and
- the Land Transport Management Act (LTMA) 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.

The Commission has examined the regulatory framework for the planning and development system and seen the need for improvements in the following thematic areas:

- systems and processes for integrating land use, transport and infrastructure;
- strategies for supplying and developing land; and
- regulation and approval processes.

Integrated planning

Effective urban planning and development systems link decisions about land use (eg, zoning) with the provision of infrastructure (eg, water) and other services, such as transport. However, New Zealand's planning system creates a complex web of legislative obligations and plans that, collectively, can make it difficult to effectively and efficiently coordinate land use, transport and infrastructure decisions.

Many of the local authorities within the scope of this inquiry have tried to overcome problems with the legislative system by developing non-statutory spatial plans. These spatial plans act as linchpins for other statutory plans and local authority strategies.

Little data is available about the relative effectiveness of New Zealand spatial plans in releasing sufficient land for residential development. However, inquiry participants identified a number of benefits from such plans. These benefits include greater intra-regional cooperation and understanding, more efficient infrastructure use and investment, and a better ability to respond to natural disasters (such as the Canterbury earthquakes) or to new policy initiatives.

Many New Zealand spatial plans (and their associated RMA plans) impose urban limits and set density or intensification targets. The permanence of the urban limits or hardness of density targets vary between individual plans. These policies need to be carefully designed and monitored, to avoid creating negative impacts on housing supply.

Spatial plans as they currently operate lack regulatory force and need to be translated into district plans and other regulatory instruments. A number of local authorities expressed frustration at the statutory consultation and analytical requirements involved in translating spatial plans into RMA regulatory plans. However, the Commission considers that these statutory requirements help to ensure that land use regulation is well-designed and that affected parties have the opportunity to be heard.

Speeding up the translation of spatial planning processes into land use regulation, without compromising analytical rigour or consultation, is likely to require the development of a new legislative avenue for larger or faster-growing cities. This could combine infrastructure strategies, longer-term transport planning and longer-term thinking about the growth of the city with the development of land use rules.

The new legislative avenue for cities should be voluntary, and so allow local authorities to choose the statutory planning mechanisms that best suit their circumstances. It should also be tightly focused on activities of high importance to the functioning of cities and the demand for land. Large numbers of objectives in spatial plans, and goals that do not bear a strong relation to the demand for land, would complicate the implementation of these plans and the development of efficient regulation.

Future plans prepared under the proposed new legislative avenue should be developed in partnership with the full set of central government agencies whose services, such as education and health, matter for the functioning of cities. To date, central government has played a limited role in developing spatial plans. Given the fiscal implications of greater central government involvement in spatial planning, both Cabinet and the relevant local authority should approve any future plans.

Finally, the new legislative planning avenue should include processes to encourage robust regulatory analysis and development, as section 32 of the RMA is designed to do. Central government could bring its regulatory expertise and capability to bear so as to properly test proposals for new land use rules and regulations in future spatial plans. Possible options include peer review by the Treasury or use of an Independent Hearings Panel to provide expert impartial review.

Strategies for supplying and developing land

Overseas jurisdictions apply a number of specific processes and techniques to ensure an adequate supply of land for housing. Yet few of the key processes identified by the Commission are used to their full potential in New Zealand.

Many New Zealand urban local authorities have goals for the supply of land to meet future residential growth, but the form and strength of these goals varies between councils. Only Auckland Council and the Western Bay of Plenty SmartGrowth partnership have quantified land supply targets.

The readiness of land matters for the efficiency of the housing supply chain. Land that is both zoned and serviced will put the most competitive pressure on land and house prices, as it is more readily available for home construction. Auckland Council and Hamilton City Council have supply targets explicitly based on zoned and serviced land. Other high-growth local authorities should express their land-supply targets in terms of zoned and serviced land and report publicly on their performance. Greater monitoring of dwelling completions and net changes in the dwelling stock would better enable local authorities to assess whether housing shortfalls were building up, and could help trigger reviews of planning controls.

Subdivision covenants are a common feature in property development in New Zealand, and include detailed restrictions on land use. Many of the covenants reviewed by the Commission appear to be unduly prescriptive. Covenants established in building schemes can reduce the supply of land for housing now and in the future, and increase the cost of building dwellings. The Commission seeks views on the merits of statutory controls on subdivision covenants. These include time limits, placing restrictions on the subject matter of covenants, providing councils with powers to override private covenants, or creating mechanisms to reduce the barriers to extinguishing covenants without unanimous consent.

The Crown and local authorities own large amounts of land. Information about the quantity and state of this land is patchy. However, available information suggests that significant amounts of public land may be bare, vacant or substantially unimproved and suitable for residential development.

The Government has recently announced a tender to use 430 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. Scope may exist to use public land holdings in other high-growth cities to help offset the nationwide shortfall of lower-priced housing. The Ministry of Business, Innovation and Employment (MBIE) should work with local councils in high-growth areas to identify surplus land that could be used for housing.

The ability to promptly rezone land plays an important part in increasing land supply, by bringing new land to market (eg, by converting rural land to urban use) and increasing the development capacity of existing urban land (eg, by increasing height limits or reducing minimum lot sizes). Plan changes are the mechanism by which land is rezoned for different uses. Councils in high-growth cities take longer on average to make plan changes operative than other local authorities. Consultation obligations and appeals contribute to these longer timeframes.

The Commission considers a case exists where local authorities are given more flexibility over notification and consultation for proposed plan changes that are specific to particular sites. Such changes would help to ensure that those directly affected by a plan change (eg, current landowners in the site, and immediate neighbours) have a right to be notified and heard, while opening up opportunities for faster and more efficient rezoning processes. The Commission is interested in hearing views on how eligibility to be notified and consulted on such proposed plan changes should be defined.

Reforms to appeal avenues require careful trade-offs to be struck between the goals of speeding up rezoning processes and ensuring that they deliver quality outcomes. The Commission is interested in receiving evidence on whether greater use of independent commissioners in planning decisions would provide the level of rigour required to justify further restrictions on appeals.

Engagement with affected parties on proposed plan changes ahead of their notification, and circulation of draft plan changes for comment, are leading practices and may help reduce the incidence of appeals. This aligns with the Commission's recommendations in its *Regulatory Institutions and Practices* report that there should be a general expectation that exposure drafts of legislation will be published and consulted on ahead of the formal introduction of Bills to Parliament (NZPC, 2014). Early consultation on detailed proposals helps to clarify whether proposals are feasible and efficient, and provides an opportunity to iron out problematic provisions.

Regulation and approval processes

Land use regulations can play an important part in managing externalities 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, land use regulations can affect the price and supply of housing.

Most land use regulations in New Zealand are made under the RMA in District Plans. To provide an overall benefit to the community, regulations must be designed with all the relevant costs and benefits in mind. Evidence collected through this inquiry suggests that some local authority regulations are imposing high compliance and economic costs, leading to increases in the cost of development and the loss of potential housing. The costs of some particular regulations appear to outweigh any likely benefits. Problems with excessive regulatory costs stem from a number of sources. These are multiple or conflicting objectives in District Plans, inadequate analysis before rules are introduced, and poor overlaps with other regulatory frameworks. A number of recommendations are made where specific regulations do not appear justified (Box 2).

Box 2 The costs of regulation outweigh the benefits

The Commission has identified a number of regulations where the costs appear to outweigh the likely benefits. These have the effect of reducing the density of urban land use and increasing the cost of housing. It is recommended that urban territorial authorities should:

- remove District Plan balcony / private open space requirements for apartments;
- review minimum apartment size rules in their District Plans, with a view to removing them (once the MBIE has completed planned work on updating Building Code rules and guidance related to air quality, lighting, acoustics and access in multi-unit dwellings);
- remove District Plan minimum parking requirements and make more use of techniques for managing traffic demand;
- lift current building 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.

The inquiry Terms of Reference state that this inquiry is not a "fundamental review of the Resource Management Act". As a result, the Commission has been reluctant to consider issues of the RMA's purpose and focus. However, the topic of the RMA's impact on the ability of cities to change and provide for housing was so prominent in the evidence presented to this inquiry that the Commission concluded that it needed to address the matter explicitly. In particular, there are strongly diverging views about the appropriate weighting given in the RMA to urban growth outcomes and housing relative to other outcomes. The Government should therefore introduce amendments to the RMA to clarify the role and importance of housing and urban environments.

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 would help reduce these delays. The national planning system also has some scope for greater standardisation and liberalisation.

Inclusionary housing policies provide requirements or incentives for developers to provide "affordable" or lower-cost housing. They are a common feature of overseas planning systems, but are not prominent in New Zealand. Only Auckland and Queenstown have inclusionary housing policies in their current or proposed District Plans, although Special Housing Areas (SHAs) and Housing Accords provide more opportunities to introduce such policies.

Inclusionary housing policies should not be a substitute for planning system reform. If the planning system is the proximate cause of declining affordability, planning system reform should be the priority response. However, inclusionary housing policies can be seen as a "second best" option, where planning system reform fails to deliver sufficient flexibility or fast enough responses to longstanding housing deficits.

To be most successful, inclusionary housing policies should be designed with the nature of the current planning system in mind. In New Zealand's case, this means that incentive-based (rather than mandatory) policies are more suitable. Inclusionary housing policies are also most likely to succeed where they are part of a wider suite of tools, most of which require central government support.

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 3). 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 try to tightly control the supply of new infrastructure. This constrains the supply of "shovel-ready" land (that is both zoned and serviced) for housing.

Box 3 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;
- energy – electricity and natural gas transmission and distribution;
- telecommunications – fixed line, mobile coverage and internet; and
- social and community infrastructure – eg, schools, 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, and identified areas for improvement to better manage the supply of infrastructure and keep pace with demand.

Infrastructure planning and delivery

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.

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 potential gains from unlocking spare capacity within existing infrastructure networks and using infrastructure more efficiently can be substantial. For example, Wellington City Council recently identified that a significant inner-city residential and commercial development could be accommodated entirely with existing infrastructure capacity. To exploit spare network capacity requires a deep understanding of existing infrastructure assets, the current and future network demand, and permissive planning rules that allow intensification to occur in areas where excess capacity exists.

Councils should make more use of user charges where this can reduce demands on 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 resulted in a significant reduction in demand for water. This, in turn, generated significant savings, primarily because upgrades to water collection and wastewater treatment infrastructure could be delayed. Other cities could replicate this experience.

Most types of infrastructure face few barriers to introducing user charges. Yet this is not the case for transport infrastructure. The LTMA should be amended to allow pricing on existing roads, if a business case exists to support such a move.

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 approached that Selwyn District Council uses is a good example of this leading practice.

"Development agreements" enable developers to take responsibility for building infrastructure that a council would usually build. This shift has the potential to generate a swifter and lower cost of supply of infrastructure. The Commission is interested in hearing views about how developer agreements have worked in practice and whether any barriers exist that unnecessarily limit their use.

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 cost-benefit analysis. 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 may 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 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 the broader planning and land development processes for infrastructure. The Auckland Infrastructure and Procurement Forum connects infrastructure providers, advisors, constructors and suppliers to provide for better procurement and coordination of major construction projects. Inquiry participants suggested that this approach to integration works 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 a tendency for development to occur in 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 that these costs are not set and more efficient processes could potentially reduce them. 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 as indicative of 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's appetite to take 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.

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. Yet 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. Municipal utility districts (MUDs) are another infrastructure financing approach suggested by inquiry participants. The main advantages of the approach are that it allows infrastructure to be built at the initiative of a developer, and the cost of infrastructure is recovered over a long timeframe from those that benefit. Yet creating multiple, small and fragmented resident-managed utilities through MUDs is unlikely to be efficient.

Development contributions are a particularly important source of funds for infrastructure. Despite recent changes to the LGA that sought to improve the approach to development contributions, they 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.

- Adherence to the new principles introduced in the Local Government Amendment Act (2014) will promote efficient choices about the location and type of developments.
- 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 will 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 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. The LGA should be amended to make clear that developers may formally request that councils build growth-enabling infrastructure, to be repaid through targeted rates on the properties that benefit from the infrastructure connections, and obliging councils to consider such requests.

Governance of transport and water infrastructure

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

The primary concern relating to governance of transport infrastructure is the absence of any strong statement in the Government Policy Statement (GPS) on Land Transport about land supply for housing. The New Zealand Transport Agency (NZTA) rightly is focused on the three priority objectives specified in the GPS: economic growth and productivity of the network, road safety, and value for money. Directing NZTA to refocus its priorities on how transport infrastructure can better support the growth of cities could help high-growth councils to free up land supply for housing. However, shifting the priorities for land transport funding could have implications for NZTA's existing priorities.

Because councils or Council Controlled Organisations (CCOs) are the only providers of water services in New Zealand cities, they are monopoly providers in their area. 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, so as to balance commercial with public and environmental objectives. Even so, urban water systems have "merit good" aspects and wastewater and stormwater management have "public good" aspects. Any funding arrangements need to consider these aspects.

Water management in New Zealand does not appear to have the institutional arrangements to make the changes necessary to ensure that infrastructure roll-out can adequately respond to new demand. The Commission considers that alternative funding arrangements should only be examined within the context of

greater use of network pricing for water supply and an improved governance and regulatory framework for the whole water sector.

Watercare supplies 1.4 million customers in Auckland, but many other councils may be too small to exploit economies of scale in water supply and wastewater treatment. The Commission is seeking feedback about whether taking advantage of scale economies in delivering water services could improve the capacity of councils to deliver water services more efficiently to support urban growth.

The accountability arrangements for Auckland's CCOs (Auckland Transport and Watercare) 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 CCO statements of intent relating to the efficient roll-out of new infrastructure to support an increased supply of new dwellings.

Watercare imposes an Infrastructure Growth Charge (IGC) on all new developments connecting to Watercare's network. The IGC is a flat charge, which is applied across Auckland. This flat charge is likely to distort development costs, reduce transparency over how the IGC is being used, and discourage the development of dwellings with lower infrastructure costs. The IGC should be changed to better reflect local factors that materially affect the cost of installing new infrastructure.

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. There appears not to be any clear rationale for this. The Commission is interested in receiving further information about whether the existing checks and balances that apply to Watercare are sufficient.

Shaping behaviour to release and develop land

The Commission has examined the incentives that shape the behaviours and actions of landowners, homeowners and councils in supplying and developing land for housing. How these behaviours and actions play out at the local level ultimately determine housing supply. A number of policy measures are proposed that will help incentivise the release and development of land.

Existing homeowners benefit from local regulations that restrict the supply of new dwellings, as such a restriction inflates the value of their home. Homeowners therefore have strong incentives to oppose developments that could affect the amenity and value of their home. Existing ratepayers also have strong incentives to oppose development that involves council expenditure on infrastructure that will not benefit ratepayers and that will be recovered through general rates. These incentives materialise in political action. Existing homeowners are more active politically and have a disproportionate influence on local political processes, including local body elections and consultation processes. Many of the council practices that constrain the release and development of land for housing are readily explained as councils being responsive to those who participate in local democratic processes (Box 4).

Box 4 The outcome of political processes will reflect the interests of those who participate

The dominance of homeowners in local government political processes could help explain a number of the problems identified in this report, such as:

- the existence of urban containment policies and density controls, minimum parking requirements, minimum apartments sizes, balcony requirements, and lower-than-optimal height restrictions;
- controls on the internal design and construction of buildings that exceed standards set under the Building Act;
- land use regulations that make many residential land uses "discretionary" in district plans, rather than "restricted discretionary" or "permitted";
- a reluctance to use available funding sources, resulting in the rationing of growth-enabling infrastructure; and
- the absence of facilitating growth in the number of dwellings as an objective of CCOs.

Many of the recommendations outlined in this report will ease constraints on the growth of cities. However, these recommendations will not, on their own, override the tendency for local interest groups (especially homeowners) to have a strong and constraining influence on plans. Two options may provide a counterweight to the disproportionate influence of these groups. First is the promotion of more sophisticated consultation and engagement processes that reach beyond existing property owners. Second is shifting the balance between local and national involvement in the planning and development system.

Consultation and engagement processes that seek to understand the wider community's perspective on land use regulation can help overcome these drawbacks. While some councils go to considerable lengths to garner public interest and involvement in the development of city plans, this approach is not widespread. The Commission heard that the public can find it hard to access current planning processes, with complex planning documents identified as a major barrier to engagement. Some councils in New Zealand and overseas are using innovative approaches when engaging with the community (such as neighbourhood plans in Brisbane and representative surveys in Auckland), and are having more sophisticated conversations with their communities about their cities' futures and how to accommodate growth.

A greater role by central government in the planning process can also help rebalance the disproportionate influence of local interest groups on the political and planning processes. The economic spillovers from local government land regulation, and the inadequate local representation of those who bear the costs of those decisions, means there is a case for greater government involvement in addressing those regulatory and financing failures. Compared to other countries, central government has relatively little involvement in planning matters (including a lack of national guidance). The Commission is seeking views on the merits of following potential measures:

- a National Policy Statement relating to the provision of adequate land for housing; and
- expanding existing powers in the RMA to enable Ministers to direct changes to District Plans and Regional Policy Statements that provide insufficient development capacity to meet population growth.

The Commission found evidence of land banking in many urban areas in New Zealand cities. Land banking is the acquisition and holding of either greenfield or brownfield land, in anticipation of future price increases. Land banking in the expectation of future price increases is only rational where land is scarce (because local regulations restrict the supply of land for housing). Land banking is therefore a symptom, rather than a primary cause, of land supply shortages.

The Commission has examined a number of policy settings that, at the margin, will incentivise landowners to release and develop land. Two options have potential: setting Councils' general rates based on land value, and making Crown land liable for rates.

- 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, and so, at the margin, discourages owners from developing land or intensifying development on it. By contrast, a land value rating system encourages land to flow to its highest value use, including more and denser housing. The trend in recent decades has been towards city councils abandoning land value rating in favour of capital value rating. The arguments that support this shift in policy are not strong. The Commission considers setting general rates on the basis of land value, rather than capital value, has potential benefits and invites further information on this from inquiry participants.
- Core Crown land is exempt from general rates. There appears to be no principled reason for this. Rating Crown land would provide Crown agencies with the same incentives as private owners have to use land or release it to those who will develop it. The Treasury, in consultation with the Department of Internal Affairs, should investigate the possibility of removing the rating exemption on land owned by the core Crown, including on land used for health and education purposes.

The case for an urban development authority

Given current regulations, there is little evidence that the market or existing government initiatives will deliver the number of dwellings that are required in order to meet New Zealand's, and particularly

Auckland's, growing population. This report has identified a range of actions that will improve the supply of land and development capacity for housing. Even so, significant challenges remain, including:

- the magnitude of the shortfall in dwellings in Auckland is not being eroded; rather, it is continuing to grow;
- the local political economy suggests that improvements to land use regulation, and a sufficient commitment to infrastructure funding, will be difficult to realise; and
- a real problem exists in enabling development to occur at scale.

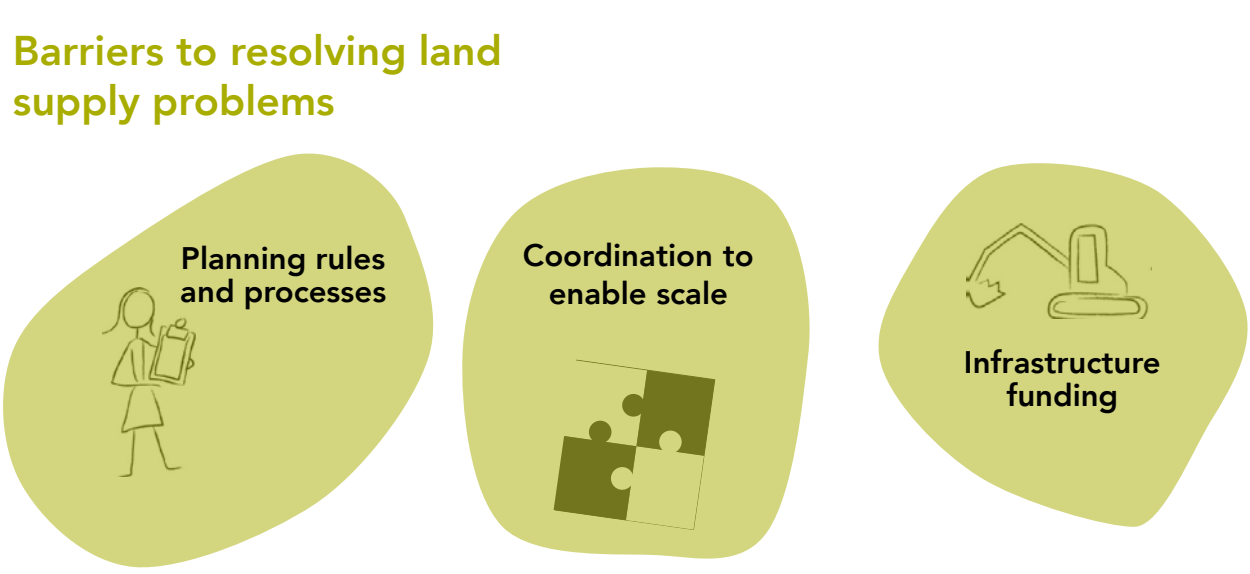
Confronting these challenges will require a focussed, determined and substantive response that moves beyond what has been done previously. This means a greater degree of publicly led development.

The development at Hobsonville will realise around 3 000 new dwellings, and will take more than a decade to complete. But Auckland has an existing shortfall of as many as 32 000 dwellings, and requires a further 13 000 dwellings a year to accommodate new growth. This is the equivalent of eleven more "Hobsonvilles" immediately, and a further four completed every year.

SHAs and Housing Accords seek to address one of the significant challenges identified in this report: slow and overly restrictive planning processes. However, they do not address other significant barriers to large-scale developments, including land assembly and infrastructure financing (Figure 2). The largest developments in Auckland (Hobsonville, Three Kings and Stonefields) have been able to repurpose large brownfield sites. But few such sites are left. Most greenfield landholdings are small and will not support development on the scale required to address current shortfalls.

Large-scale developments offer 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 Commission has found major coordination failures in land assembly in New Zealand, especially in Auckland where greenfield and brownfield land holdings are very fragmented. This inhibits large-scale developments in greenfield or brownfield sites.

Figure 2 Barriers to resolving land supply problems



Compulsory acquisition of property by the state can be justified if it is in the public interest, and if compensation for the property taken is just. Given the significant social and economic harms caused by the current housing situation, a good case exists for compulsory acquisition powers to assist in the assembly of sites for large, masterplanned developments. However, it should be noted that compulsory acquisition powers can facilitate a negotiated sale, and often do not need to be exercised to be effective. The existence of an agency with compulsory acquisition powers can encourage land owners to develop their land or sell it to those that will.

Where public action such as rezoning increases the value of land, a good case exists for the community to capture some of the unearned value uplift that results from public action. Where councils rezone rural land for urban use, large increases in value accrue to landowners. The community should have an expectation of capturing at least some of that gain. At the same time, there is an apparent shortage of revenue, or lack of willingness to use revenue tools that are available, to fund growth-enabling infrastructure. A number of value capture mechanism were examined such as betterment levies, negotiated contributions and land value increment taxes. But these mechanisms have had a chequered history in New Zealand and other countries, and have proved challenging to implement and difficult to sustain.

The best option to capture the value uplift that results from public action such as upzoning is for a public agency to participate in the land market. Such an agency would have the ability to acquire, hold and trade in land. This has the potential to generate significant revenue that could be used to fund growth-enabling infrastructure. An agency participating in the land market could purchase and release to developers sufficiently large sites on a scale that would enable better planned, denser developments. It might also increase the supply of land for development by private owners by reducing their expectations of future land value increases.

The Commission considers that there is a place for an urban development authority (UDA), or multiple UDAs, in New Zealand to lead and coordinate residential development at scale in both greenfield and brownfield settings. A UDA would be a suitable vehicle for the use of compulsory acquisition to amalgamate parcels of land for development and redevelopment, and for capturing the uplift in value that comes from upzoning, coordinating infrastructure provision, and catalysing development on a scale required to address the challenges identified in this report. UDAs can partner with private sector developers to remove regulatory risk and bring land and dwellings to market. They can also support the development of a residential construction sector that is able to operate on a scale that can generate efficiencies.

A UDA would require legislation to establish and give it powers, including compulsory acquisition. The Commission is interested in hearing views on the important design features of such an UDA, the risks with this approach, and how those risks can be managed.

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.

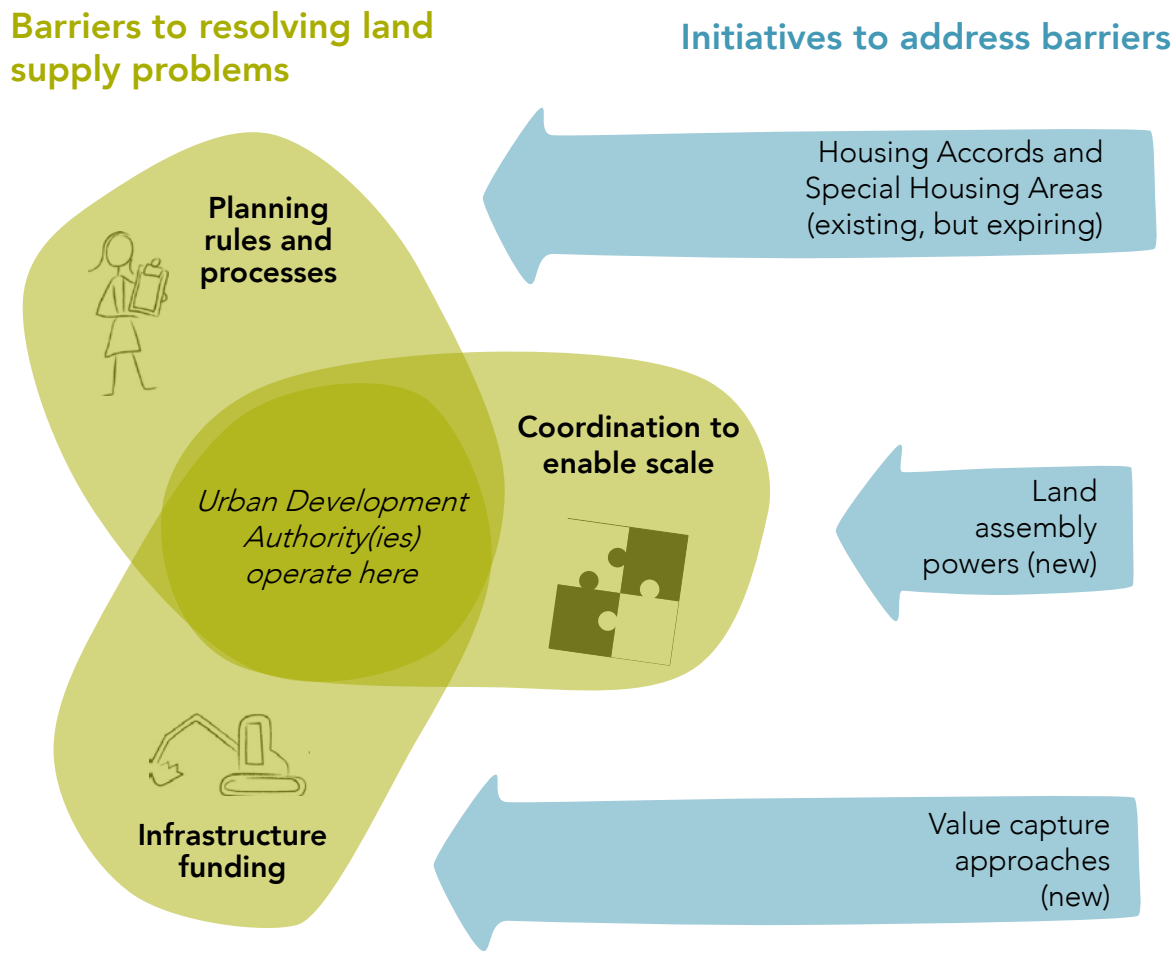
At the heart of the New Zealand's housing affordability issues is a mismatch between local and national interests. The growth of cities creates greater employment opportunities for individuals and can provide productivity gains for the nation, but the costs of growth are felt most strongly by existing residents. These residents may prefer to see cities grow at a slower rate than would be ideal for the nation. Some existing residents – especially homeowners – benefit from restrictions on the supply of new housing, as these help keep up house values. The Commission has identified a "democratic deficit", where homeowners have a disproportionate influence in local council processes, including elections and consultation. This creates a "wedge" between local and national interests.

Resolving New Zealand's land supply and housing affordability issues requires striking a new balance in the planning system between local and national interests, and between protecting existing amenity and enabling development rights. It will also require new institutions to unlock land for large-scale developments to alleviate housing shortages and housing costs. A UDA could play an important role at the nexus of a number of barriers to land supply that this report has identified (Figure 3).

Improving the supply of land for housing is the most important component of addressing affordability concerns. 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 2012 *Housing affordability* report, these areas also have

a material impact on housing affordability. However, unless land supply is addressed any gains in these areas are likely to accrue not to home-buyers, but to landowners.

Figure 3 How a UDA would address barriers to land supply



Councils and their elected representatives also need to lead in persuading their communities of the benefits of growth. These are difficult conversations. Facilitating growth requires communities to change, and change is hard. Some people will lose from that change. But the community as a whole, and New Zealand, will benefit from it. Growing cities provide their residents with increased amenity and substantial economic opportunities. Councils need to lead better conversations about how growth is going to be accommodated that include their whole community.

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. Where councils and infrastructure providers try to tightly manage where and when that growth occurs (and where it may not occur), they contribute to escalating land costs. In turn, this encourages owners to withhold land, and forces builders to construct the most expensive dwellings on sites that are available. The resulting shortage in housing causes a range of invidious social and economic harms that hurt the wellbeing of individuals, families, communities and the nation.

This is a vicious cycle that must be addressed by unlocking land supply. No single or simple solution exists. A number of changes, as outlined in this report, are necessary.

1 About this inquiry

Key points

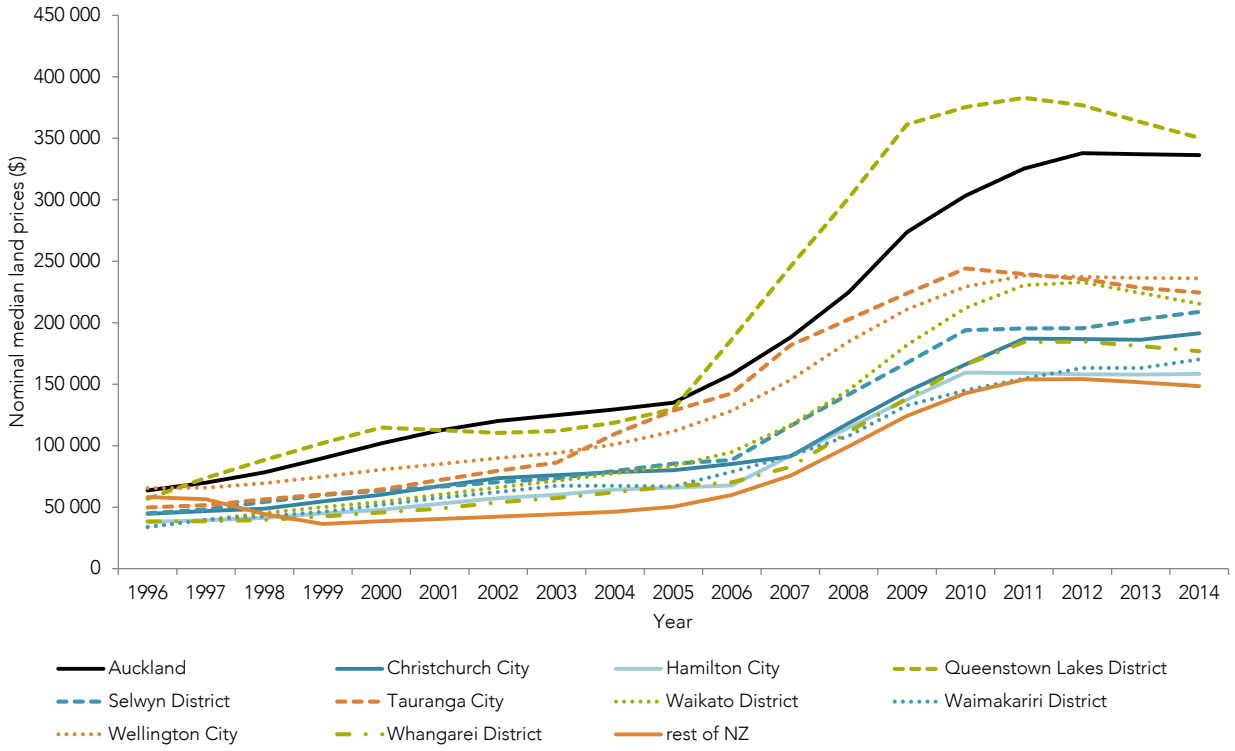
- Housing is a basic human need and fundamental to our economic and social wellbeing. It plays a central role in individual and community health, family stability and social cohesion, in the mobility and responsiveness of the labour market, and in productivity and economic development. Providing an adequate supply of land and development capacity for housing to meet demand, 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 built-up areas. Constraints on the release of new residential land and restrictions on the more intensive use of existing residential land create scarcity, limit housing choice, and increase house prices.
- An earlier report on *Housing affordability* by the Commission identified the role of constraints in the land supply and development system as a critical driver of escalating house prices and affordability.
- 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 growth and 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 a spectrum of possible improvements to the system ranging from incremental to more fundamental institutional change.

1.1 Introduction

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. Housing supply has been sluggish in responding to population growth and struggled to keep pace with increasing demand. This has manifested itself in price of houses, and the cost of housing, rising. Making sure that a range of choices of sufficient and affordable housing exists to accommodate this growth is critically important to how our cities function and to the wellbeing of New Zealanders.

A lot of factors affect the supply of affordable 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, indicating that appreciating land prices have been a key driver of house price inflation in New Zealand (Figure 1.1). This suggests a shortage of residential land in places where people want to live. Land price pressures have been particularly acute in Auckland where land values now account for as much as 60% of the cost of total property values, compared with 40% in the rest of New Zealand.

Figure 1.1 Nominal median land values



Source: Productivity Commission analysis of Quotable Value data.

An earlier report on *Housing affordability* (2012) by the Commission identified the role of constraints in the land supply and development system as a critical driver of escalating house prices and 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 through 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 directly impact on the cost 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 house prices. These impacts are disproportionately felt in particular areas and by low- income groups.

It is desirable that the land supply and development system, and the housing market more broadly, work in such a way as to maximise the options available for quality housing, including the full range of housing typologies (e.g., apartments, townhouses, and standalone houses), for all New Zealanders regardless of income, location or tenure choice. This means a land supply and development system that has both depth and diversity.

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 (Terms of Reference, p. iii). Specifically, the Commission is asked 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 (see Box 1.1 for the Commission's definition of these systems). Comparable overseas systems are also to be investigated where they provide valuable lessons for New Zealand.

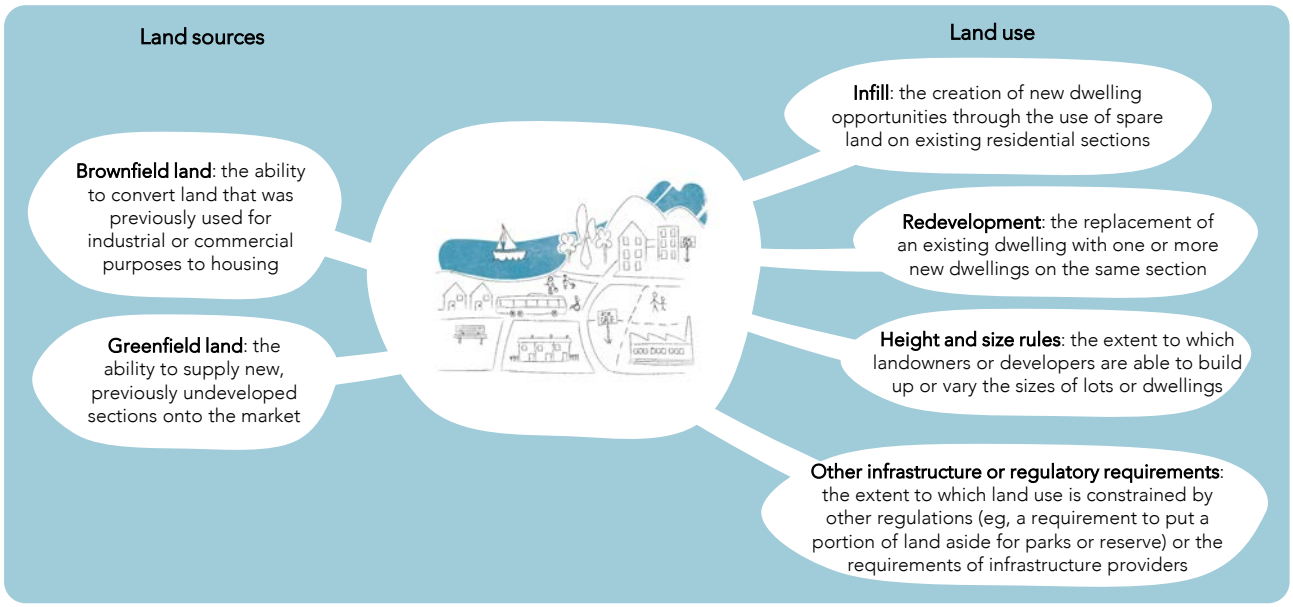
Box 1.1 Local planning and development systems

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 3;
- 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 affect the "supply of development capacity" (Figure 1.2).

Figure 1.2 What contributes to the supply of development capacity?



In reviewing the planning and development systems, the Commission has been asked to see "how they deliver an adequate effective supply of development capacity for housing". The Commission has defined "development capacity" to mean land that is "shovel ready" for building housing and that can be developed to meet a range of market demands (housing typologies, location, quality and price). 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 (NZPC, 2012). It also reflects the conclusions of scholars such as Bertaud (2014a, p. 5), 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.

The Government 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. It 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 (Chapter 2). 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 a fragmented and expensive land supply (NZPC, 2012).

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 (Chapter 2). Overseas research suggests that releasing adequate land and development capacity through lifting barriers to urban growth could raise a country's Gross Domestic Product by as much as 9.5% (see Hsieh & Moretti, 2015). Many of the productivity gains are from workers

being able to locate and work in cities that offer higher productivity and higher-wage jobs. It is difficult to think of many other policies that would yield such an improvement in the national 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 well does the system meet the demand for land in its most valued use and supply infrastructure efficiently and in a way that is responsive to demand? Can the current system be made to work better for New Zealanders or is a different institutional framework required to deal with the complexity, negative effects and coordination problems faced by our fastest-growing cities?

A spectrum of possible improvements exists, ranging from incremental to more fundamental institutional change. A number of criteria are used to help evaluate how the planning and development system is performing and any potential areas for improvement. A well-performing land supply and development system exhibits the following features:

- 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;
- 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 process for setting urban planning rules/restrictions reflects the broad interest of the community and the country as a whole, not just those of vested interests;
- 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 and funding mechanisms allow adequate land to be serviced with infrastructure, at the right time and in the right place; and
- land planning and development policies and decisions are transparent and provide a reasonable level of certainty for all parties about future intentions.

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 set of 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.

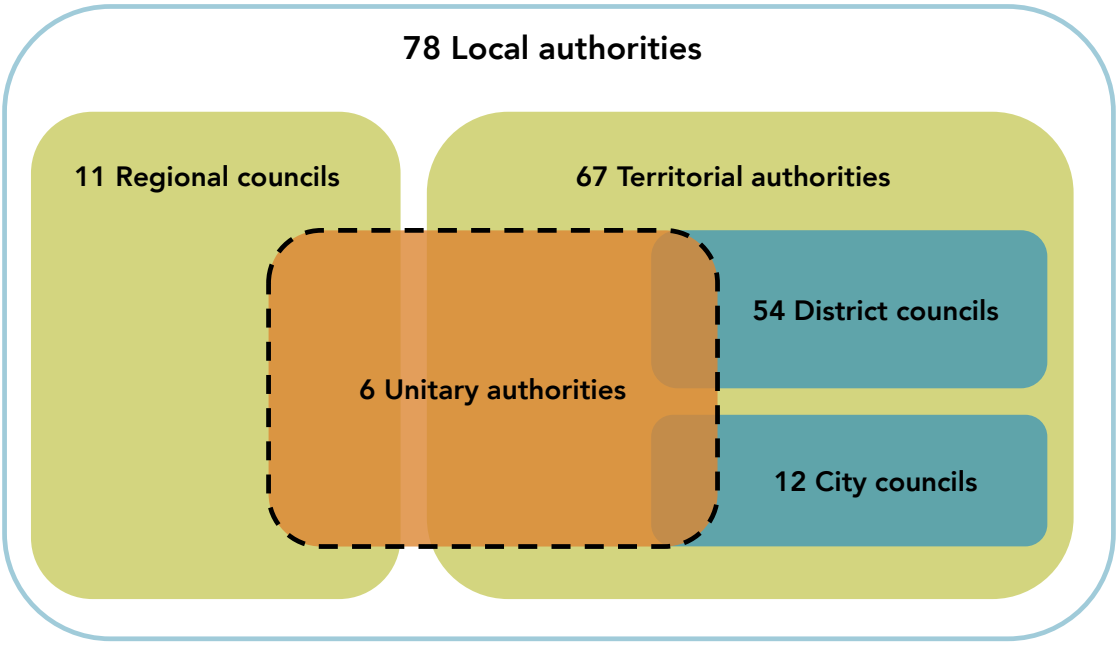
The approach to the inquiry laid out above provides a strong basis for making system improvements through enhanced processes, leading practices and institutional change.

A focus on high-growth cities

The inquiry's Terms of Reference ask 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".

New Zealand has two types of local government structures: regional councils and territorial authorities. Territorial authorities are further broken down into three types: city, district and unitary authorities. A unitary authority is a city or district council that also has the functions of a regional council (Figure 1.3).

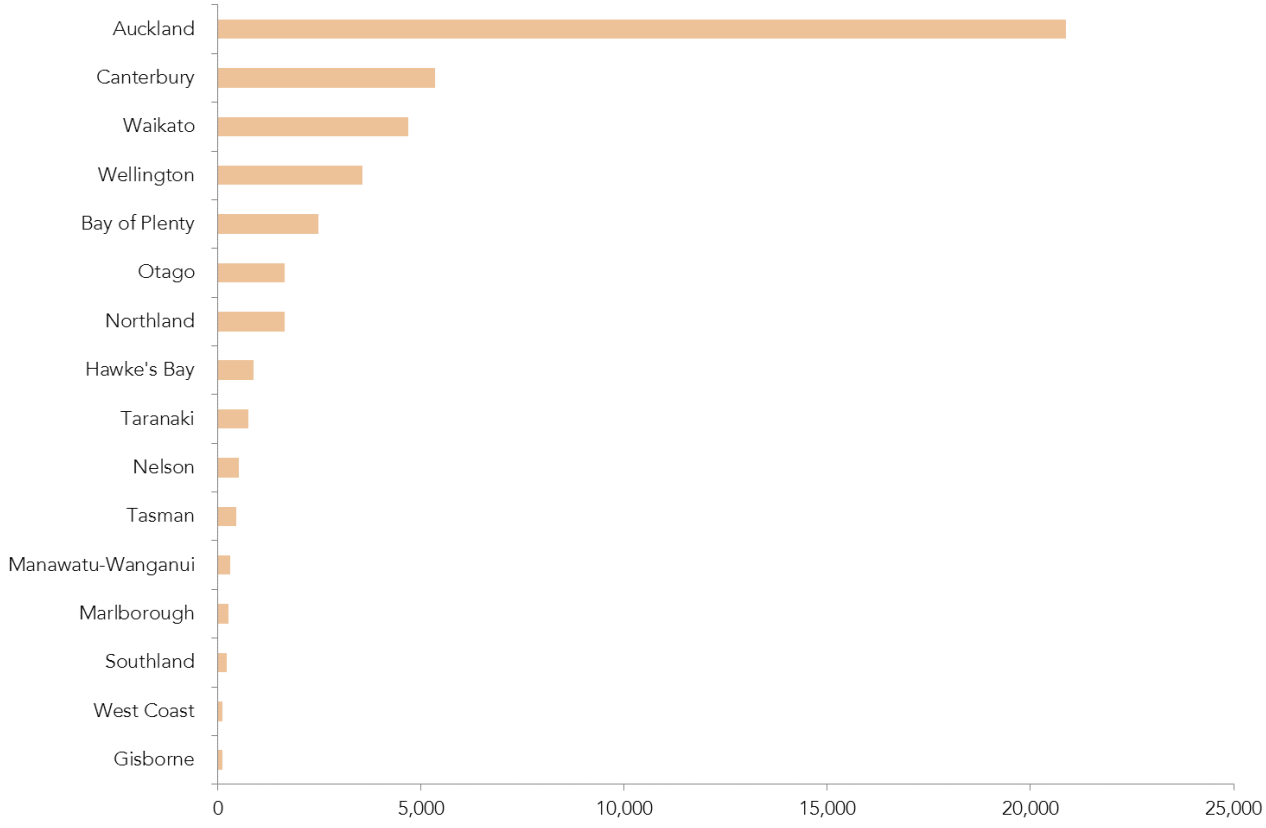
Figure 1.3 Types of local authorities



Note: Auckland is a unitary authority and a territorial authority but it is not a city council or a district council.

New Zealand has experienced relatively high population growth over the past decade (Figure 1.4), much of it concentrated in urban areas. New Zealand's natural population growth has been strong (among the fastest growing in the OECD since 2000), while migration flows have been highly variable and often focused on Auckland. Inward migration has been particularly strong in recent years.

Figure 1.4 Average annual absolute population growth



Source: Productivity Commission analysis of Statistics New Zealand data.

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, 2012). 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 yet 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..

However, 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.

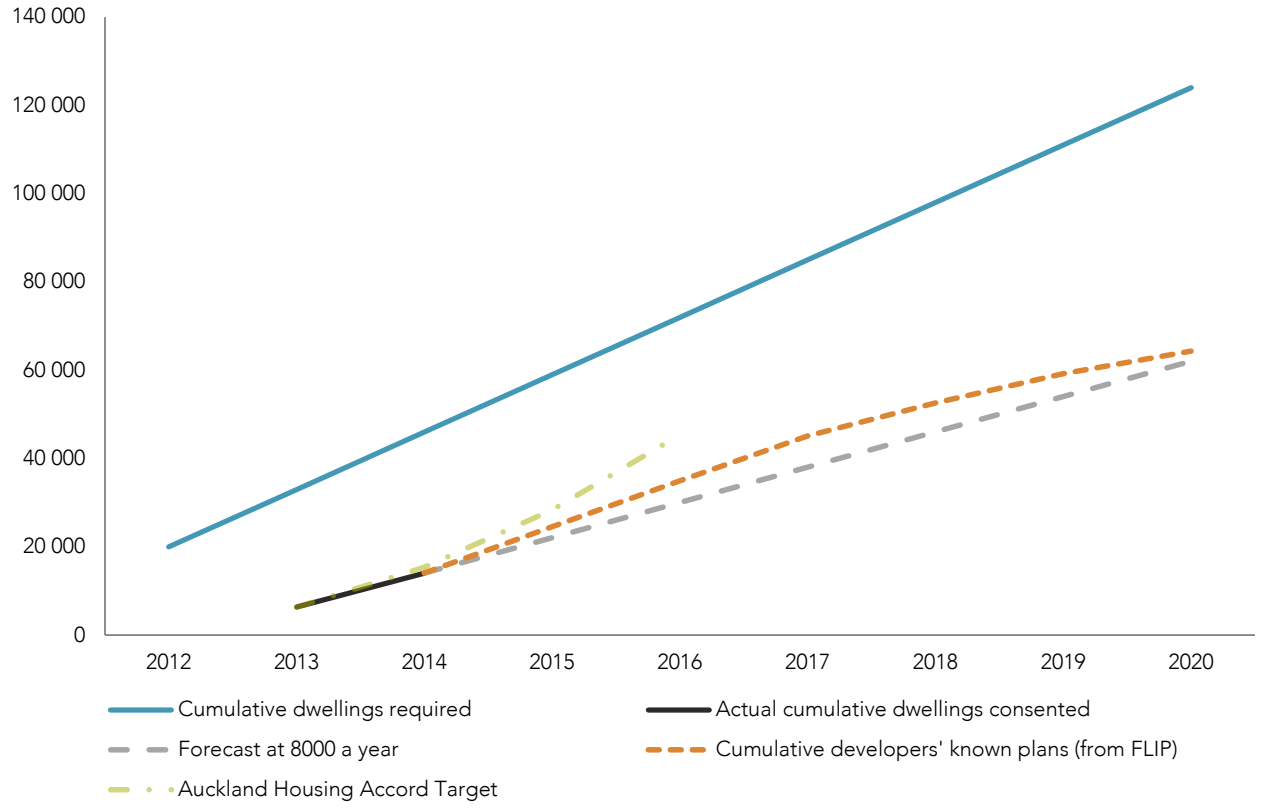
Notably, of the territorial authorities that experienced population growth from 2001 to 2013, almost half of that growth was in Auckland – more than the next 28 fastest-growing territorial authorities combined. Auckland is also expected to have the highest growth rate in household formation.

In December 2012, Auckland Council estimated an existing shortfall of between 20 000 and 30 000 dwellings, and a need for a further 13 000 dwellings each year. Even using the council's conservative estimate of the shortfall (in line with other estimates), 46 000 new homes were needed by the end of 2014. From 2012 to 2014, only 14 052 dwellings were consented in the city. This is about half of what the council estimates is required just to accommodate new demand. In the meantime, the shortfall of dwellings in Auckland is continuing to grow (Figure 1.5).

If new dwellings in Auckland grow by about 8 000 a year in the future, which is higher than in any year since 2005, by 2020 the shortfall will grow to about 60 000. Auckland Council's record of developers' current plans,

from the Forward Land-use Infrastructure Programme (FLIP), suggests that developers are not planning to build dwellings at a rate that will erode the shortfall. The ambitious new dwelling targets in the Auckland Housing Accord, if met, would erode the backlog, but would still leave Auckland 26 500 dwellings short by the end of 2016. Each year that this shortfall continues is likely to result in additional pent-up demand, meaning that the average number of new dwellings required to meet demand will increase.

Figure 1.5 Building consents and projected housing demand in Auckland



Source: Productivity Commission based on Auckland Council data.

The problems with the operation of the land supply and development system, and the housing market more broadly, are widespread. 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. Indeed, the Housing Accords and Special Housing Areas Act 2013 (HASHA Act) lists, in Schedule 1, those territorial authorities that are designated as areas experiencing significant housing supply 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, 2012).

Christchurch is a special case worth noting. Destruction of housing stock from the earthquake 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 can achieve.

Gathering evidence

The Commission's draft findings and recommendations have been informed by a comprehensive engagement process. This began with the release of the inquiry Issues Paper in November 2014, which received 75 submissions from a diverse range of interested parties. At the same time, 108 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 1 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 Chairman 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). An impressive line-up of speakers, presentations and site visits was provided.

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 at the well-regarded University of Pennsylvania's Wharton School. This index helped 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 considers the benefits that large cities can bring to their residents and to the country as a whole, and the costs of artificially controlling the growth of those cities. The influences that determine the shape and size of our cities, the types of dwellings that are built and where people choose to locate are examined. The chapter presents new data on the growth of New Zealand cities and discusses the distributional and economic impacts of local land use polices.

Chapter 3 looks at the processes that New Zealand local authorities use to link decisions about land use with the provision of infrastructure and other services, such as transport.

Chapter 4 explores the strategies for, and barriers to, the supply of land for housing and its prompt release. The chapter also considers the process of rezoning land for housing in fast-growing New Zealand areas.

Chapter 5 investigates the extent that land use regulations enable or inhibit the development of land for housing in New Zealand cities, looks at some underlying causes of those restrictions, and proposes some responses. The chapter also considers the role of inclusionary housing policies in planning systems.

Chapter 6 examines the infrastructure requirements and costs associated with new growth and processes that councils use to plan the rollout of new infrastructure. How councils manage and make use of existing infrastructure assets is also examined.

Chapter 7 examines how councils currently pay for infrastructure and what alternatives are available.

Chapter 8 considers the governance arrangements for infrastructure and looks at the use of council controlled organisations for water and transport infrastructure.

Chapter 9 discusses some of the forces that influence the attitudes and actions of landowners, homeowners 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.

Finally, Chapter 10 considers whether there is a role for new institutions to coordinate the release and development of land for housing, and fund growth-enabling infrastructure, so as to address current pressures.

2 Cities, growth, and land for housing

Key points

- Cities are national assets. When cities function well, they provide greater choices of employment, more opportunities for specialisation and have higher incomes and productivity than other areas. The concentration of people and businesses in cities also creates costs, such as pressure on infrastructure and on the availability and cost of housing. This puts a premium on good city organisation and the ability to effectively plan for growth.
- There are longstanding concerns about the ability of New Zealand planning systems to respond to the need for new housing, and about the extent of constraints placed on development.
- There does not appear to be an optimal city size after which the costs of urban life outweigh the benefits. However, the optimal city size from the perspective of the nation may be different from the perspective of local residents. This can create situations where local residents want cities to grow more slowly, or be smaller, than would be ideal for the nation.
- Economic models describe how cities respond to population growth and policy interventions such as land use regulations or investment in transport infrastructure. In the absence of constraints, population growth would lead to higher land prices closer to the city centre (where amenity value is highest). This prompts developers to economise on the use of land at the centre by increasing density – building more dwellings on each unit of land and building more multi-storey buildings and smaller dwellings.
- New Zealand cities have differing intensification profiles. Some cities have seen significant intensification close to the city centre, in line with economic theory. But in other cities the biggest contribution to intensification has occurred in outlying suburbs, suggesting that there are barriers to the efficient use of land.
- A survey of fast-growing New Zealand councils found universally strong land use rules, but considerable variation in the overall stringency of land use regulation. This variation was 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.
- Land prices in major New Zealand cities and high-growth areas increased significantly in the middle of the last decade, both in nominal terms and as a share of total property values. High land prices encourage the production of larger and more expensive housing. In New Zealand, the average size of new dwellings has increased by more than 50% since 1989. More than half of the new builds in New Zealand in 2014 were valued in the upper quartile of all housing stock, driven by the price of land.
- The current tendency of the New Zealand housing market to produce larger, more expensive dwellings is likely to be increasingly at odds with demographic trends, with the average size of households forecast to shrink over the next 20 years.
- Constraints on the use of land for housing push up housing prices, and have a disproportionate impact on the less well-off members of the community. The current situation presents risks to macroeconomic stability, puts pressure on public finances, creates barriers to labour market mobility, limits opportunities for agglomeration economies and associated productivity gains, and increases wealth inequality. Limits on the ability of cities to grow and evolve in response to population growth affect the wellbeing of current and future generations of New Zealanders.

2.1 Introduction

The greatest pressure on the supply of land for housing is in our cities. Over the next few decades the population of some New Zealand cities is projected to grow significantly. 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 Commission's terms of reference) to meet this demand?

In 1881 New Zealand was a predominantly rural country, but by 1916 the urban population exceeded the rural population and our cities continued to grow apace. Today, New Zealand is one of the most highly urbanised countries in the world, with about 86% of New Zealanders living in urban areas.[2] That said, New Zealand has only one city of significant size. Auckland's population was around 1.42 million people in 2013, a little under three times bigger 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.

The notion that cities are beneficial was once an uncommon view. The Statistics New Zealand publication *New Zealand: An urban/rural profile* noted the consternation that greeted the realisation in the early twentieth century that the population was no longer predominantly rural:

> Newspapers raised fears about urban corruption and decay as the population lost their hardy pioneering spirit and became softened by the experience of urban living. In 1923, the prominent educationalist, Professor James Shelley, wrote that children "should not be educated in the town… I do not think you realise how destructive it is" (Goodyear, 1998, p. 51). In response, sports such as rugby increased in popularity as a suitable medium to toughen young men and inculcate them with suitable values. None of these fears slowed the inexorable march towards an increasingly urbanised and eventually sophisticated nation. (Statistics New Zealand, 2004, p. 10)

The desire to preserve the beneficial characteristics of rural life not only influenced education policy but housing policy as well. Prime Minister Peter Fraser, when looking at models for state housing in the 1940s, was dismayed when shown a multi-block apartment in Berhampore in Wellington, declaring "I hope it will be the last" (Goodyear, 1998, p. 52). The preference instead was for a suburban house building programme in the Hutt Valley.

This chapter considers the benefits that large cities can bring to their residents and to the country as a whole, and the costs of artificially controlling their growth. It explains the influences that determine the shape and size of our cities, the types of dwellings that are built and where people choose to locate. It presents a simple model to show how cities that are unconstrained respond to population growth by economising on the use of land, and it looks at the impact of local regulatory and infrastructure policies on land use. The chapter then investigates the factors that serve to constrain the development of new housing in response to an increase in demand. It presents new data on the growth of New Zealand cities and discusses the distributional and economic impacts of local land-use policies.

2.2 The benefits and the costs of cities

Why do urban areas exist? Edwin Mills, a founder of urban economic analysis, says that "the simplest answer is the correct answer. Urban areas exist because proximity among diverse economic activities economises on the cost of moving goods, people and messages" (Mills, 2000, p. 8). Urban economist Edward Glaeser writes in *Triumph of the City*:

> The strength that comes from human collaboration is the central truth behind civilization's success and the primary reason why cities exist. (Glaeser, 2011, p. 15)

The benefits of agglomeration

When firms are located in close proximity to each other, they can take advantage of the benefits that come from having access to a wider pool of skilled labour, better links to markets for inputs and outputs, and the ability to share knowledge (Lewis & Stillman, 2005; Mare & Graham, 2009). These benefits are known as

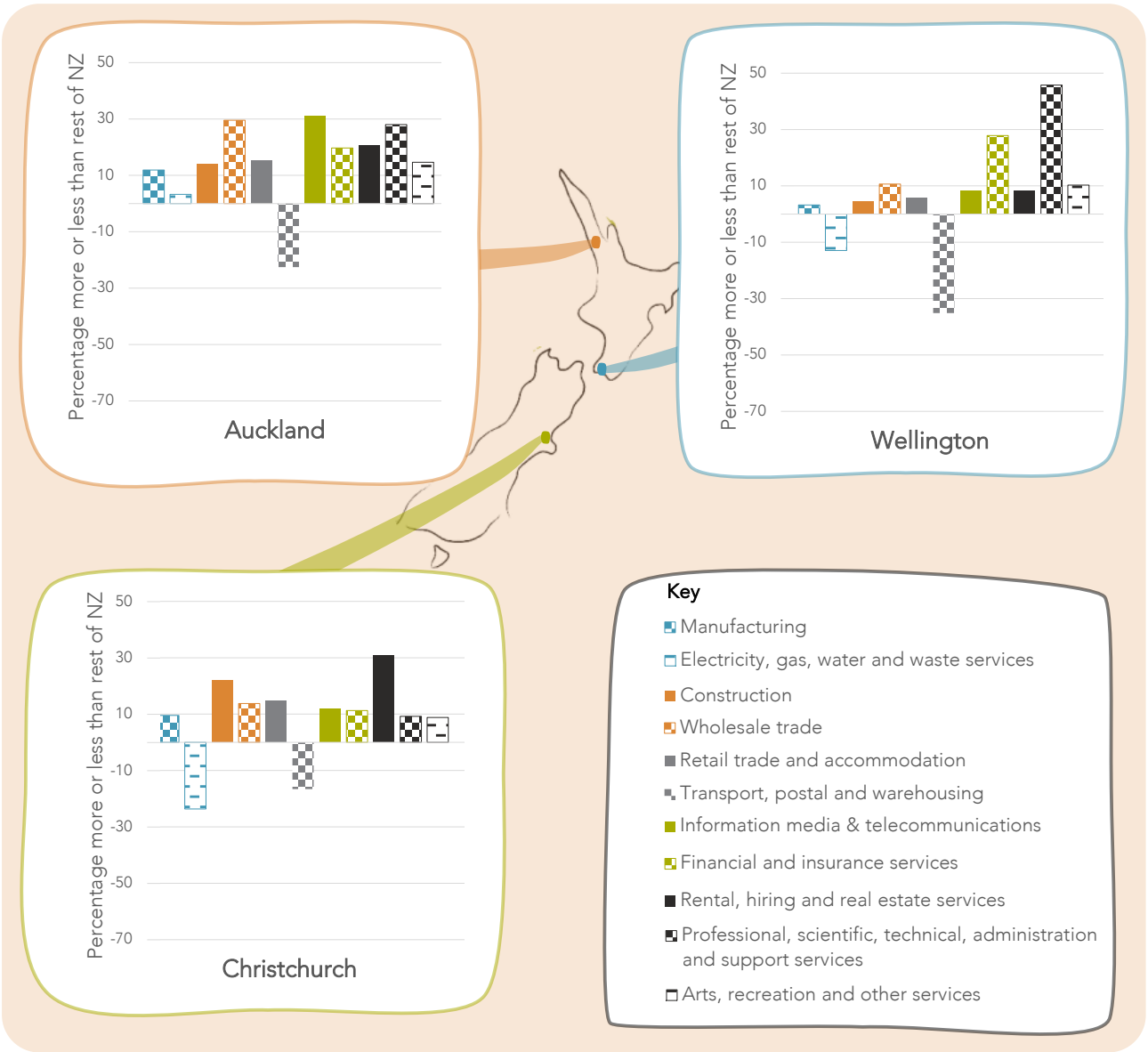
[2] The population of rural areas has increased very little since the early twentieth century. The rural population was 501 258 in 1916 and 532 740 in 2001.

agglomeration economies.[3] In modern economies, the sharing of knowledge is particularly important. Glaeser and Gottlieb (2009) found that while some manufacturing firms still cluster to reduce the costs of moving goods, the most important factor driving greater density is the role that proximity plays in speeding the flow of ideas.

For people, larger cities provide a greater choice of employment and more specialised employment (Bertaud, 2014b). People who live in cities are able to be more productive workers and they earn, on average, higher wages. The benefits of being in a more productive environment don't just happen on arriving in a city; workers in cities also experience consistently higher wage levels over time. This seems to be because workers can take advantage of training, networks and knowledge sharing while living in a large city. The benefits from the improved flow of ideas accrue to workers as much as they do to firms. Even when workers move away from a larger city to a smaller city, their big city experience is still reflected in their earnings (OECD, 2014).

The higher productivity of New Zealand's biggest cities – Auckland, Wellington and Christchurch – compared to the rest of the country is seen in Figure 2.1. This is partly due to the composition of the industries that are located in cities and partly due to higher labour productivity within these industries.

Figure 2.1 Labour productivity in selected NZ cities, compared to the rest of New Zealand



Source: Productivity Commission analysis of Statistics New Zealand data.

[3] Agglomeration economies are not the same as the economies of scale and scope, which are internal to firms (Mills, 2000).

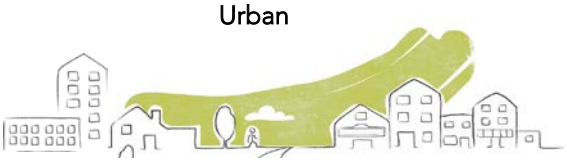
Notes:

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

Glaeser (2011) argues that people who live in US cities are often also healthier, wealthier and better educated than people who live in rural areas. In New Zealand, the differences between rural and urban areas are less stark (Figure 2.2), probably reflecting the influence of national welfare and health systems.

Figure 2.2 Amenity in urban and rural areas

	Internet access	Health service utilisation	Drinking water supply standards	Opportunities for study
Urban 	Wellington & Auckland had the highest proportion of connections at 85% of all households. Two-thirds of rural households had a broadband connection in 2012.	Females in main urban areas in 2003 were significantly more likely to have had unmet need for a GP in the last year than females in true rural areas.	Water quality standards were highest in the larger supply areas and lowest in the small supply areas in 2013.	Main urban areas had the largest proportion of people studying for 20 or more hours a week in 2001.
Rural 				

Source: Statistics New Zealand, 2013; Ministry of Health, 2007; Ministry of Health, 2014.

Note: The terms "main urban" and "true rural" used in the chart are Statistics New Zealand classifications.

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) reports 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 did 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 (OECD, 2014). 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 waste water 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.

These costs detract from the benefits of city life. Roads become congested and commutes are longer.[4] 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. Of New Zealand cities, employment is relatively decentralised in Auckland, with only 13% of employment located in the central business district (CBD) in 2011, while 55% of employment in Wellington is in the CBD. The difference between these two cities results in very different transport infrastructure requirements. Poorly organised cities not only impose costs on residents; they can also 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 higher costs of housing, and the higher cost of living in cities more generally, are also an impediment to labour market mobility, dampening the incentive to move provided by higher wages. [5] Clearly, high relative earnings and employment opportunities, along with other amenities, encourage migration to a region, while higher relative housing prices discourage it (Muellbauer & Murphy, 2008). Cities differ in how they respond to the challenge of accommodating growth. This can have a major influence on the price of housing. For example, restrictions on building in existing inner suburbs increase prices and encourage movement to urban fringe locations, even though transport options tend to be more limited on the city fringe and fewer jobs are within easy reach.

Is there an optimal city size?

Is there an optimal city size after which the costs of urban life simply outweigh the agglomeration benefits? This is not an easy question to answer and has been the subject of debate among economists and geographers since the 1960s. Several important issues must be considered. First, the optimal city size is not fixed because costs and benefits change over time. For example, Glaeser and Kohlhase (2003) find that transport costs have declined in real terms by up to 90% in the United States, altering the cost-benefit calculation in the locational choice of firms and households.

Second, the optimal city size from the perspective of the nation as a whole will differ from the optimal city size from the perspective of the city's resident population:

> The optimal population will differ according to whether a national or a local viewpoint is assumed. (Alonso, 1971, p. 72)

As Camagni, Capello and Caragliu (2013) explain, the optimal size from the perspective of the national economy is when the city makes its maximum possible net contribution to national income "and should be assumed as a target by a national government interested in efficiency of the urban system" (p. 311). 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 makes about its growth may therefore be at odds with the interests of central government in maximising the benefits to the economy of a larger city size. Combes, Duranton and Gobillon (2012) observe that many cities actively restrict growth because their focus is local and they are concerned

[4] It is also commonly thought that cities generate more pollution than rural areas. However, more densely populated cities that don't rely on private automobiles have lower energy use than more spread-out cities or rural areas (Glaeser, 2011). The wealthier a city becomes, the more environmentally friendly it becomes as well. This is because, as incomes rise, people demand cleaner air and water. They also demand more environmentally friendly goods and services and support greater regulation to protect the environment.

[5] The main reason for the higher prices of goods and services in urban areas is that businesses have to pay higher prices for their inputs such as rents and wages, although higher prices can also reflect the higher quality of the goods and services that can be bought in bigger cities. The more competitive environment found in cities also works to squeeze profit margins, partially offsetting higher prices (OECD, 2014).

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. Much work remains in understanding the costs and benefits of agglomeration, how these are related to city size, and where the benefits of agglomeration accrue and where the costs fall.

Third, as noted above, city policies can increase or reduce agglomeration costs. Bertaud (2014b) argues that the fundamental challenge for city authorities 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)

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

F2.1 The optimal city size from the perspective of the nation may be different from the perspective of local residents.

2.3 A framework for understanding the impact of city policies

People's housing choices are determined by their preferences and their incomes. While the demand for housing and its supply is determined in a private market of willing buyers and sellers, the quantity, type and location of available housing is shaped by a city's local land use and infrastructure polices. This section looks at the impact of -city policies on the market for land and housing.

The demand for space and for amenity

As incomes rise, people tend to demand more private space – bigger houses and more land or garden space are generally found further away from city centres. However, rising incomes also leads people to demand greater public amenity – they want to live closer to the attractive areas of cities and closer to jobs and educational opportunities. There is an inherent trade-off for city dwellers between more private space and the benefits of more public amenity (Cheshire, Nathan & Overman, 2014).

Amenity (for example, the proximity of a public open space) and dis-amenity (such as proximity to a noisy road) are reflected in housing prices. A number of studies have attempted to measure the value of different amenities and the effect on house prices (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).

These studies use housing market transactions to infer the implicit value of a property's underlying characteristics by separating out the structural attributes of a property from locational characteristics such as accessibility to amenities. The attributes that people value varies between countries and between cities, but the valued attribute can have a marked impact on housing prices. And as the distance from the valued attribute increases, prices fall.

For example, Gibbons, Mourato and Resende (2014) write about the value of properties near churches with steeples in England:

> Distance to churches (those classified as having steeples or towers on Ordnance Survey maps) also comes out as important, with 1 km increase in distance associated with a large 4.2% fall in prices, worth about £8,150…. This figure may be best interpreted as a valuation of the places with which churches are associated – traditional parts of town centres, focal points for businesses and retail, etc. – rather than a valuation of specifically church-related amenities and spiritual values. However, the environmental amenities provided by church grounds and architectural values of traditional churches could arguably also be relevant factors. (p. 191)

Improvements to local infrastructure can also increase amenity, which is then capitalised into housing prices. 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 effect on prices decayed over distance and was not observed from a distance of about 8 km.

In summary, attractive areas within cities attract large premiums because of their proximity to highly valued amenities. Further away from these sought-after areas, housing prices are cheaper, reflecting their relative distance from valued amenities, including employment. But moving further out inevitably incurs the additional costs of and time spent commuting.

The housing cost/commute cost trade-off

Households' location choices and the resulting shape and size of cities were examined in the 1960s and 70s by Alonso (1964), Muth (1969) and Mills (1972). What has become known as the Alonso-Muth-Mills model describes the trade-offs households make about where to live based on the relative costs of housing and the time and cost of transport to work (Box 2.1).

Box 2.1 The basic Alonso-Muth-Mills model

The basic Alonso-Muth-Mills model assumes a city with a given population and income level living around a central business district (CBD). Each worker travels into the city centre for work. Since commuting is costly both in money and time, and increases with distance from the CBD, households would choose, other things equal, to live closer to the city centre. But not everyone can live close to the city centre, so the price and density of housing adjust to clear the market. In particular, land for housing becomes more expensive closer to the CBD, which prompts developers to economise on the use of land by building more dwellings on each unit of land, by building multi-storey buildings and smaller dwellings. (There is a trade-off involved, as the cost of an additional square metre rises with building height.) Households then choose whether to live in well-located yet smaller and more expensive housing, or in more distant yet larger and less expensive housing towards the city fringe. The city structure is characterised by higher density and taller buildings close to the CBD and lower density and building heights on the fringe. The overall size of the city will be determined simultaneously by the size of the population, the cost of transport and the value of land in alternative uses.

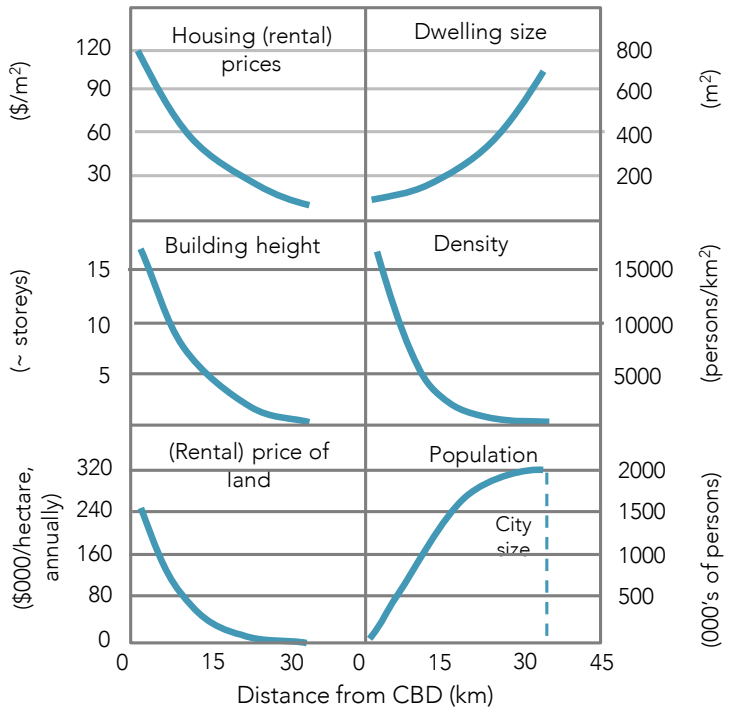
Note: Although the model assumes a mono-centric urban form, the model has been found to be remarkably robust, explaining the spatial pattern of settlement in many cities.

Source: Kulish, Richards & Gillitzer, 2012.

In 2011 the Reserve Bank of Australia developed and calibrated a version of an Alonso-Muth-Mills model to compare housing prices and the spatial distribution of five large Australian cities. The paper was published by the authors, Kulish, Richards and Gillitzer (2012). The model has also been used to compare Auckland with the Australian cities (NZIER, 2014a).

The model demonstrates that when cities are unconstrained, as the distance from the CBD increases, dwelling sizes increase while land prices, housing prices, building height and density all decrease. Given the city's population and the density at different distances to the city, it is possible to calculate a curve that shows, at every distance from the CBD, the total number of residents who live at specific distances from the centre (Figure 2.3).

Figure 2.3 An unconstrained urban equilibrium – baseline model



Source: Kulish, Richards & Gillitzer, 2012.

Notes:

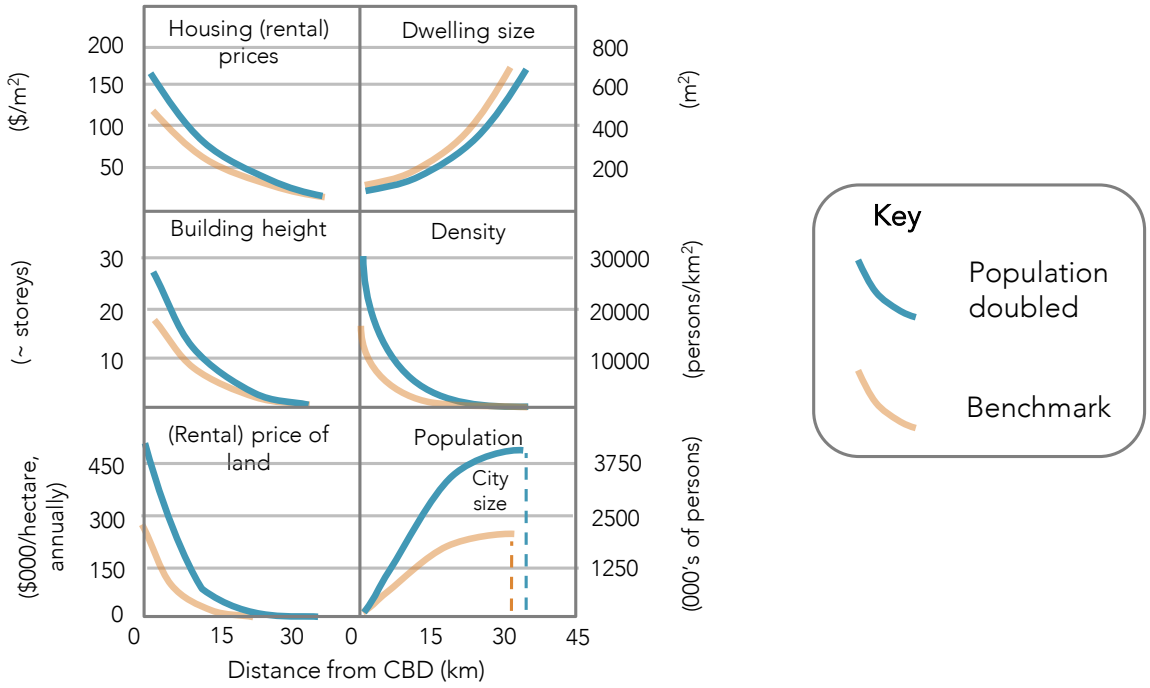
1. The Reserve Bank of Australia model is calibrated based on 2005/06 Australian census and statistical data, and assumes a yearly household income of A$70 000, 14% of yearly expenditure devoted to housing, a city of 2 million people with 800 000 households of 2.5 people each, yearly agricultural land rent of A$45 000 a square kilometre and yearly transport costs of A$600 a kilometre.
2. The Y axes in Figure 2.3 are housing (rental) prices in $ per square metre of living space; dwelling size in square metres of living space; building height in housing floor space for each unit of land, which corresponds roughly to storeys; density in number of persons living in a square kilometre; (rental) price of land in thousands of $ per hectare each year; and population in thousands.

Using the Alonso-Muth-Mills model to illustrate population change

The Reserve Bank of Australia's version of the model was used to consider how a city would adjust to a larger population if land was zoned and serviced with appropriate infrastructure to support people's locational choices in response to population growth. The Alonso-Muth-Mills model is a static model and is not able to capture the dynamics of urban change. However, the model can compare the structure of cities with similar characteristics (such as incomes, preferences and transport costs) but where population size differs.

Two hypothetical cities were compared, one city with double the population of the other. A higher population creates a greater demand for housing, and housing and land prices are higher at all distances from the CBD. Higher land prices prompt developers to economise on the use of land by building more multi-storey buildings and population density is higher and building height rises. Because of higher housing prices, households demand smaller dwellings. The larger population results in a larger city, yet doubling the population is accommodated without doubling the city's footprint. This is because building height, dwelling size and density have adjusted to the increase in the price of land and housing prices (Figure 2.4).

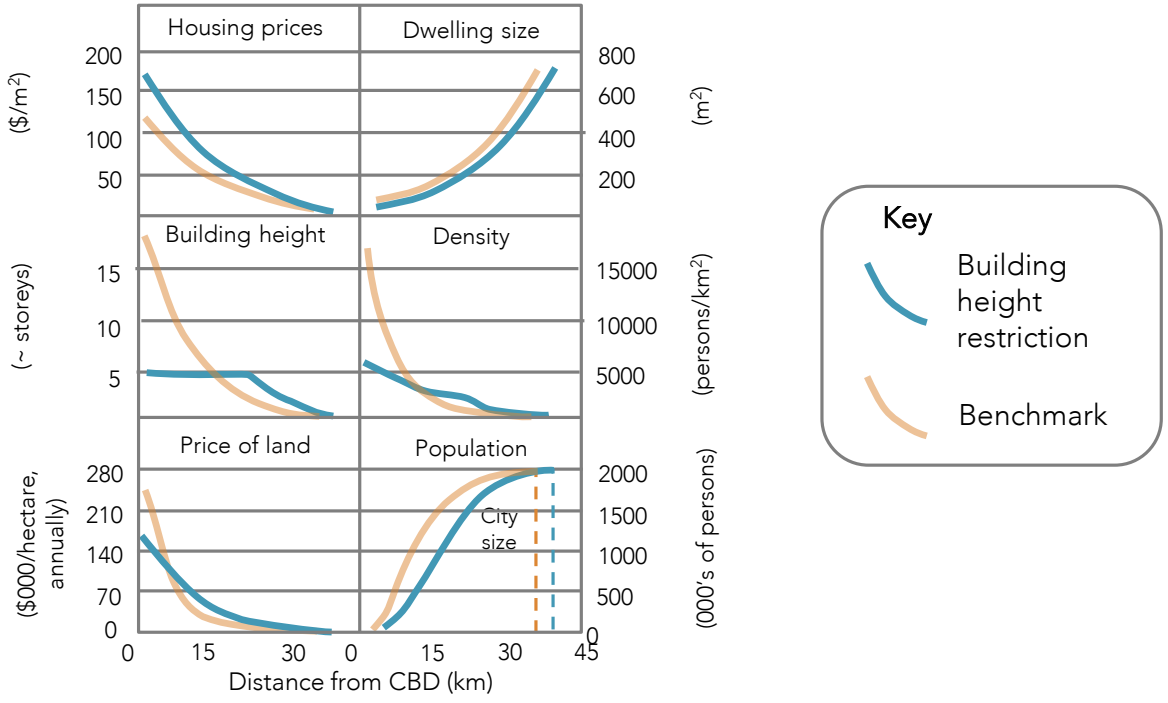
Figure 2.4 Effects of a larger population



Source: Kulish, Richards & Gillitzer, 2012.

Modelling the impact of a restriction on density

Figure 2.5 Effects of a building height restriction



Source: Kulish, Richards & Gillitzer, 2012.

The model was also used to compare the impact of a uniform height restriction across a city (Figure 2.5).

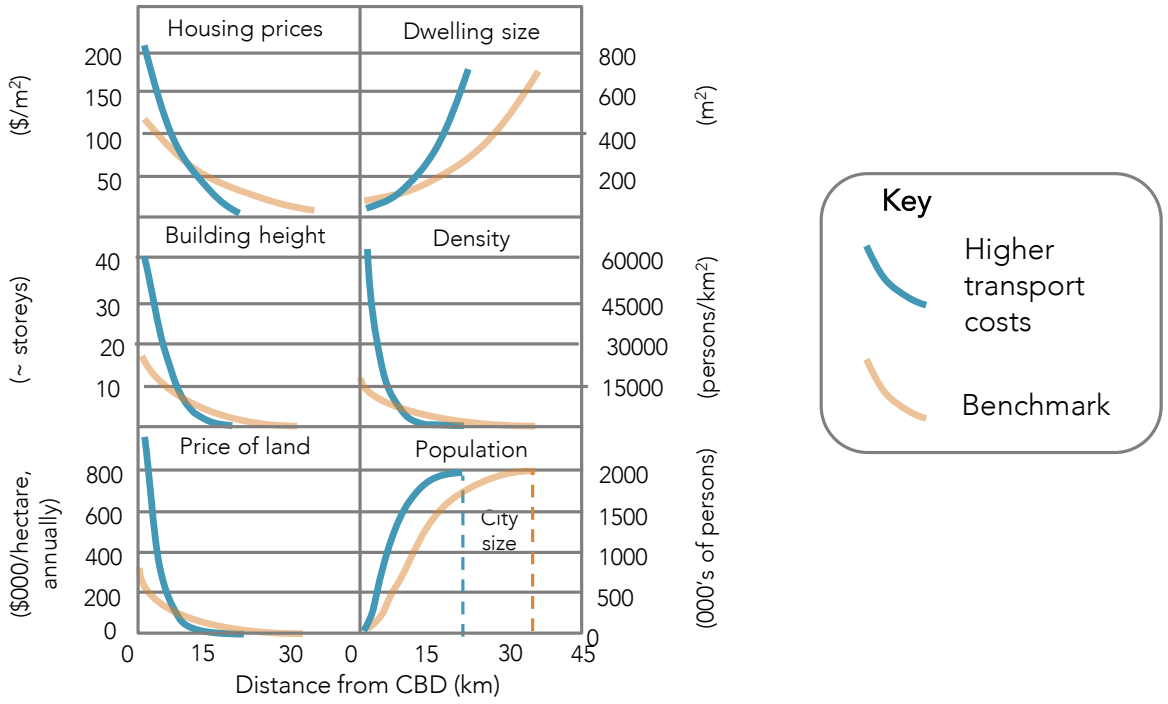
Density captures the extent to which a city is making the fullest use of its available land. Various approaches are used to measure urban population density (see Appendix B). Some density measures capture population density (as in the Alonso-Muth-Mills model presented here), while others measure the density of dwellings (eg, Figure 2.12 - Figure 2.16 in this chapter).

Although the modelled height limit is the same across the city, it is most binding close to the CBD where building height in an unconstrained city would naturally be at its highest. Because a significant proportion of the city's population is unable to live in higher-density housing closer to the CBD due to the height limit, many people have to live further out, the city becomes larger, overall density is lower and the population devotes more resources to commuting. While building height is lower in the CBD, building height in the middle and outer suburbs is higher than it otherwise would be. Overall, the price of housing is higher and dwelling size is lower at all distances from the CBD. The effect on land prices depends on distance from the CBD. Land prices are lower closer in because developers cannot build as high as they would want to and therefore the land is less valuable. As the population is forced further out, demand in the outer suburbs is higher, developers can build up to the height restriction, and land in these areas becomes more expensive.

The impact of investment in transport infrastructure

The model was also used to contrast two otherwise identical and unconstrained cities – one with significant investment in transport infrastructure as the benchmark case, and the other with less well-developed transport infrastructure, traffic congestion and higher commuting costs (Figure 2.6).

Figure 2.6 Effects of transport investment and commuting costs



Source: Kulish, Richards & Gillitzer, 2012.

In the city where commuting costs and congestion are greater, households have a stronger incentive to live closer to the CBD. As a result, city size is smaller, building heights are higher closer to the CBD to accommodate the denser population, and dwelling sizes at the centre are smaller. Housing and land prices are also higher closer to the CBD. At greater distances from the CBD several of the curves cross. With higher commuting costs, it is more costly to live further out. This means that housing prices, land prices and density near the city fringe are lower than at the same distance under low commuting costs.

Overall, the effect of poor transport infrastructure is that households spend more of their time commuting, and face higher average housing and land prices. Conversely, in a city with better investment in transport infrastructure, it is more feasible to live further from the CBD, and house prices are lower, provided the city boundary can be extended (bottom right panel Figure 2.6).

The effect of an urban limit in combination with other polices and constraints on a growing city

Many cities around the world have limits on their expansion. In some cases urban limits (along with policies that limit investment in roads) were put in place to reduce carbon emissions.[6] In other cases urban limits were put in place to prevent the encroachment of cities on agricultural and rural land. Whatever the case for their existence, considerable evidence shows that binding urban growth boundaries have major effects 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 Productivity 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, 2012).

The price ratio between land on each side of the MUL reflects not just the constraint of the urban boundary; it also reflects past and present policy choices. These include zoning which determines where commercial and industrial firms can locate, and restrictions on the density of residential areas inside the boundary. These, along with the natural geographic characteristics and features of Auckland, serve to shape the city and constrain development.

Local policies can be offsetting or reinforcing in their impacts

The Alonso-Muth-Mills model presented above illustrates the separate impact of better transport infrastructure and density restrictions on city structure and on housing and land prices. In reality, cities adopt a range of policies – some reinforcing and some offsetting. For example, both density restrictions and better transport infrastructure increase a city's footprint, yet have differing impacts on housing prices depending on the distance from the CBD. A larger population has an impact on the price of housing and land and on the urban footprint, depending on other policies that may be in place. When limits are placed on density, rising land prices in response to demand will not result in more dwellings on each unit of land. This forces the city to expand its size to accommodate the larger population. Where a city combines density controls with an urban limit, population growth will more quickly reach the limit and the constraint can become binding. This leads to high differentials in the price of land on either side of the urban boundary.

An assessment of Auckland's policies by NZIER using the Alonso-Muth-Mills model found that inadequate transport infrastructure and an overly tight MUL imposed significant costs on households. The impact is compounded in Auckland because of the city's constrained geography. The study concludes that because of its natural geographic constraints, it is all the more important to get the policy settings around land use regulation and transport infrastructure in Auckland right (NZIER, 2014a).

F2.2 Specific planning or infrastructure policies have differing effects on the ability of cities to grow and use land efficiently. Some policies may counteract or offset others. Ensuring that land use policies and transport infrastructure investments are aligned is particularly important for cities such as Auckland, where geography adds further constraints to growth.

2.4 The supply response to an increase in demand

The supply responsiveness of the housing market influences the extent to which an increase in housing demand leads to more housing or to higher housing prices. If the supply of housing is constrained in some

[6] In the absence of carbon and congestion pricing, some may consider a growth limit to be a second-best policy to deal with congestion and sprawl.

way, then increased demand will tend to feed into higher housing prices, rather than an expansion in housing supply (Gyourko, 2009).

The extent to which new housing can be constructed in response to changes in demand is determined by a number of factors, including:

- the constraints of local geography;
- land use and planning regulations which determine how much land is available for new dwellings;
- the ability to service land with infrastructure to support new housing; and
- the extent to which the construction sector can gear up and build the type of housing demanded.

Researchers have found that in some cases these factors act in tandem to constrain housing supply. For example, Saiz (2010) has explored the relative role of geographical versus regulatory constraints on development and housing prices. Saiz found that most areas in the United States that are widely regarded as supply-inelastic are severely land constrained by their geography. Restrictive geographical features in US cities are a strong predictor of housing price levels and growth. But he also found that US cities that were geographically constrained *also* had the strictest regulatory constraints. One explanation for this is that geographically constrained cities are likely to have higher land values and so citizens have greater incentive to use regulation through the political process to protect those values (Saiz, 2010).

Restrictions on land supply (zoning, planning rules and other interventions) appear to be ubiquitous and have effects on the responsiveness of housing supply to changes in housing demand in many countries.[7] A number of comparative cross country studies also attribute the substantial variations in supply elasticities to restrictive land use policies, often in combination with other factors. [8]

Barker (2004a; 2006a; 2008) focuses attention on the planning system and on other important constraints on the effective expansion of supply in the United Kingdom, such as the provision of infrastructure and its financing. The ability for land to be serviced with infrastructure such as roads and water (fresh water supply, waste water treatment and stormwater management) is an important factor in the supply response. In the case of greenfield land, new connections to existing infrastructure are required. Use of brownfield or infill sites can take advantage of existing capacity, but in some cases infrastructure may require upgrading. Concern about the cost of infrastructure to support growth appears particularly important in New Zealand:

> Councils are constrained in their ability to fund and deliver infrastructure by Local Government Act requirements to raise revenue, cash fund depreciation and consider alternative infrastructure and funding and delivery options. Additionally, 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.)

A survey of nine councils in New Zealand (NZIER, 2015) found that the cost of new infrastructure influenced the rate of residential development in their jurisdiction. The answers of those surveyed showed a strong, positive correlation between councils' stringency of land use regulation and the influence of the cost of infrastructure.

Bourassa et al. (2010) used 30 years of price data from Switzerland between 1978 and 2008 to separate out the responsiveness of land supply and of construction in response to a demand shock. The authors found that land supply in locations desirable for residential use is relatively inelastic. In contrast, dwelling supply in Switzerland is more elastic, provided that construction can gear up to meet the demand. Land price changes have largely driven house price changes in Switzerland. The authors conclude that the ratio of land to property value is an important factor in explaining house price movements.

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[7] See, for example, Titman (1985), Mayer & Somerville (2000a), and Malpezzi & Maclennan (2001) in the United States; Bramley (1993) and Evans (1996) in the United Kingdom; and Vermeulen & Rowendal (2007) in the Netherlands.

[8] See, for example, Mayo & Sheppard (1996) and Malpezzi & Maclennan (2001).

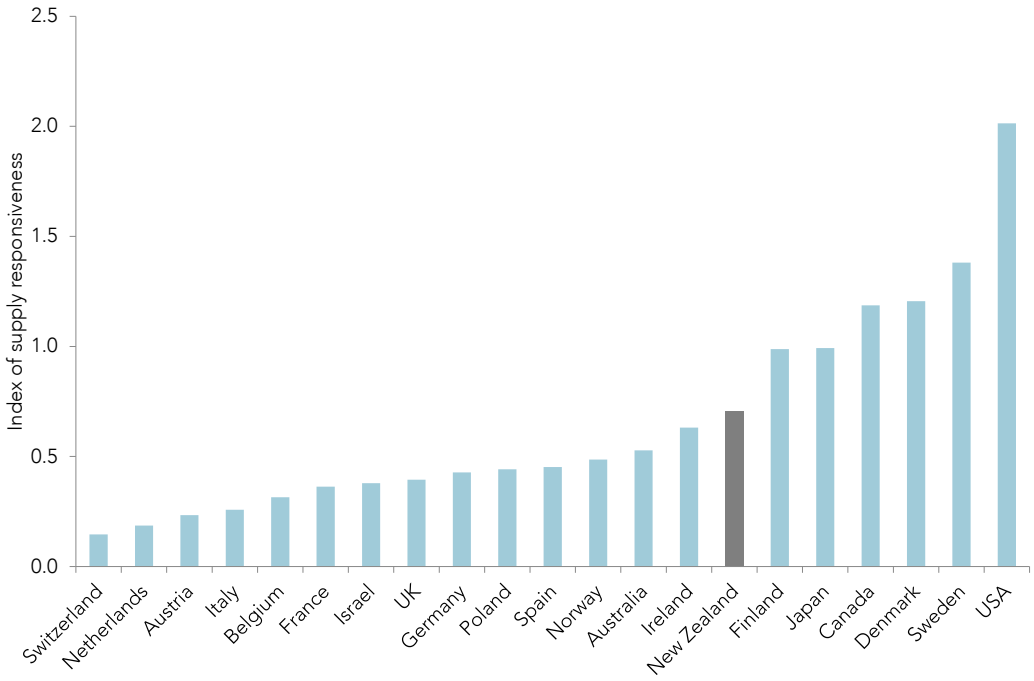
The response to the Christchurch earthquakes has demonstrated the factors that influence the ability of the building industry to meet the demand for new housing. Regular surveys of consultants, contractors, developers and local government and government agencies involved in the construction and infrastructure sectors identified a range of barriers to the rebuild. These include poor information about planning, regulations, and delays in consenting processes, but also resource and capacity limitations in the building industry (AECOM, 2015).

The responsiveness of housing supply to changes in demand (also known as 'elasticities') varies across the countries for which data is available (Figure 2.7). Where a supply elasticity is equal to one, a one percent increase in the price of housing will result in a one percent increase in supply. Where the supply elasticity is greater than one (as is the case in Canada, Denmark, Sweden and the US), a one percent increase in price will see the housing supply increase by more than one percent.

With a long-run supply elasticity of less than one, an increase in the demand for houses in New Zealand is estimated to lead to a proportionately larger increase in house prices than in new house construction. New Zealand performs rather better, however, than many European countries and the UK.

> Results suggest that housing responsiveness to price changes varies substantially across countries, with potential consequences for the speed of adjustment of housing markets. 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. (Sánchez & Johansson, 2011, p. 6)

Figure 2.7 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.

F2.3 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 house prices than in new house construction.

Local differences

National figures can belie local differences. In many countries the regulations and infrastructure decisions that influence the land available for housing are set and/or administered by local councils. As such, the extent to which housing supply responds to changes in demand, and the associated price dynamics, will vary

within countries. In areas where council policies and practices allow for rapid expansions in new house construction, house prices will be less volatile than in areas where new supply is more constrained.

Grimes and Aitken (2010) found that housing supply is more responsive, and house prices less responsive, to a demand shock where land is supplied relatively easily. Importantly, supply elasticities varied across territorial authorities, potentially reflecting regulatory and/or geographical constraints. The authors observe that several considerations will impact on the availability of new residential lots:

> These considerations include geographical and regulatory constraints, market structure (e.g., concentration of ownership of land suitable for residential development), availability of infrastructure and time taken to lay on new services for residential developments. (Grimes & Aitken, 2010, p. 350)

Yet measuring the strength of local regulatory constraints can be problematic, as regulation can take many forms. Gyourko and Molloy (2014) characterise measurement efforts to date as either deep and narrow – with extremely detailed information about regulation on a single location – or shallow and wide – where general regulatory characteristics are captured across a wide range of locations.

One example of a deep but narrow approach is the study by Glaeser and Ward (2009). The researchers investigated the causes and consequences of land use regulation in the Greater Boston area. An example of a shallow but wide approach is the Green, Malpezzi and Mayo (2005) study of 45 metropolitan areas in the United States. The researchers found that housing supply is highly responsive to demand pressures in cities with "pro-development" regulatory environments and readily available land. In contrast, supply responsiveness is low in cities with high regulatory barriers to expansion. Importantly, they also found that urban density is an important predictor of supply elasticity. Regardless of how density is specified – as the number of dwellings or as a measure of the population per unit of land – higher densities produce lower elasticities. This suggests that the denser a city already is, the harder it is for supply to respond to an increase in demand.

Another example of the shallow but wide approach is the survey of over 2 000 communities in the United States undertaken by Gyourko, Saiz and Summers (2008). The researchers used the responses to the survey to construct an index of the "stringency" of land use regulation called the Wharton Residential Land Use Regulatory Index (WRLURI). Gyourko, Saiz & Summers (2008) found that Boston and parts of New England in the United States were the most heavily regulated, while the Mid-West and the South were relatively less heavily regulated. Stringency of land use regulation, as measured by their index, was strongly correlated with wealth in local communities. They found that median house prices in the most highly regulated places in the United States were nearly twice the median price in lightly regulated locations, although the correlation between house prices and the index was relatively weak. A small study of the regulatory stringency of nine New Zealand councils using the WRLURI also found a weak positive correlation between house prices and the stringency of regulation as measured by the index (NZIER, 2015).

2.5 Responsibility for planning: councils, planners and community

The role of central government and local government

The submission from Waikato District Council sums up the role of local councils with respect to land use planning and the provision of infrastructure:

> Local government is the main regulator of land use and provides the zoning and rules governing land development for housing and development in general. It is important for any local authority to use these powers to ensure both an adequate supply of land and space for development. Good planning therefore is not just about providing housing but also all the associated infrastructure and services that goes into creating liveable communities. (sub. 12, p. 9)

As outlined earlier, in many countries the regulations and infrastructure decisions that influence the land available for housing are set and/or administered by local governments. However, the extent of national or state government involvement (in urban policy, land use regulation and the provision of infrastructure) varies considerably from country to country (Hartwich, 2014). In New Zealand, councils have considerable autonomy in determining land use policy and regulation under the Resource Management Act 1991 (RMA) (although local authorities must give effect to National Environmental Standards (NES) and National Policy Statements

(NPS) and central government can influence urban planning through guidelines and protocols). Local authorities are responsible for providing local infrastructure to meet the needs of communities under the Local Government Act 2002 and have flexible powers to determine rates under the Local Government Rating Act 2002. With the exception of funding for roads, transfers of funds from central to local government in New Zealand are insignificant.[9] Accordingly, the primary accountability of councils is to their local residents:

> While local government is a creature of statute, it operates as a largely autonomous provider of services, funded separately by property taxation and held accountable by voters. 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. (Local Futures Research Project, 2006, pp. 13–14)

The role played by central government in urban policy, regulation and the provision of infrastructure in New Zealand today contrasts with that of other jurisdictions. For example, 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). Gurran, Austin and Whitehead (2014) characterise the Housing Accords and Special Housing Areas Act, 2013, and the apparent willingness to take over planning powers in Christchurch, however, as efforts at greater centralised control:

> The 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)

Central government has tended to devolve to local government or centralise control to suit its purposes (NZPC, 2013). Kenneth Palmer observes: "The history of local government depends primarily on the policies and mandates of central government, and the practical advantages in conferring local powers to provide and regulate functions and services" (2012, p. 1075). Changes in urban planning legislation and the responsibilities of central government and local government in New Zealand are outlined in Box 2.2. A more detailed research note on the history of New Zealand planning can be found on the Commission's website.

Box 2.2 Responsibility for land use regulation, infrastructure and urban planning

Early legislation

The Municipal Corporations Ordinance of 1842 gave local authorities power to make and repair roads, water works, and sewers. Over time, the provincial regulations controlling the sale and disposal of land reflected a growing awareness that the essential needs of urban settlements had to be deliberately provided for. The Waste Land Regulations adopted by different provinces during 1855–1857 contained measures for the provision of reserves, control of subdivision and obnoxious industry, and reservation of land for public purposes. In 1867 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 was the Plans for Towns Regulation Act 1875. It was limited and restricted in its application. It was concerned with the laying out of towns, controlling the width and layout of streets and providing for reserves, rubbish disposal areas, and gravel pits. Councils were empowered to make bylaws to regulate building and to promote public health and safety – for example powers to impose minimum yard spaces to ensure light and ventilation.

[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.

The beginning of town planning

The first Town Planning Act was passed in 1926, when the rate of urban growth prompted sufficient political momentum to pass planning legislation. 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. The Act established a Town Planning Board headed by the Minister of Works.

Rapid suburban growth in the post-war period occurred in a largely incremental manner, without either serious consideration to the functional layout of cities or the provision of services and amenities. The system of local government at the time exacerbated these issues. While territorial local authorities were responsible for land-use planning, in many instances the provision of water, drainage, electricity, and other infrastructure services was undertaken by separately funded, special purpose local and regional agencies. Central government also lacked a cohesive urban policy.

A greater role for local authorities

The Town and Country Planning Act 1953 transferred the powers previously vested in the Town-Planning Board to local authorities. A new authority called the Town and Country Planning Appeal Board was empowered to deal with appeals from council decisions. The Board came to exert wide-ranging influence on planning practice in New Zealand. Each planning authority was responsible for preparing and approving a district planning scheme, but each council had to submit its scheme to the Minister of Works who checked that it made sufficient provision for public works and that it complied with relevant regulations.

The purposes of district and regional schemes under the 1953 Act 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. The late 1960s and early 1970s saw a further shift in planning practice. Councils moved away from administering zoning that controlled the built environment toward a broader strategic and policy-focused function. A new Town and Country Planning Act in 1977 included two important directives to local government. The first directive was to use and manage New Zealand's resources wisely. The second directive was to recognise the relationship of Māori, through their culture and traditions, with their ancestral land.

The Resource Management Act 1991

In 1987 the Government initiated a review of New Zealand's town and country planning legislation that ultimately resulted in the passing of the RMA. The RMA was an attempt to do away with zoning, establishing in its place an 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 RMA has been successively amended since its inception.

Source: Barry-Martin, 1956; Perkins et al., 1993; Hearn, 1987.

While urban policy and planning has largely been the responsibility of local government, central government has not been unconcerned. The review of New Zealand's town and country planning legislation in 1987, for example, 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 Act acts 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 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 reviews of the RMA. And, 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. Further, 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 trees, historic buildings and such matters, have also found been found in submissions to this inquiry.

F2.4 There are longstanding concerns about the ability of New Zealand's planning systems to respond to the need for new housing, and about the extent of constraints placed on development.

The legislative changes outlined in Box 2.2 also reflect changing beliefs about the role and scope of urban planning and increased community involvement in planning.

The role and scope of planning: improving social outcomes

The scope of urban planning has been influenced by beliefs about the perceived benefits of planning by an emergent planning profession in the twentieth century. These views are still reflected in planning philosophy and practice today.

Urban planning and public health

The proposition that urban planning could improve the lives of urban dwellers began with the public health movement in the late nineteenth century. Urban planners and public health professionals began to address high rates of disease caused by household waste that polluted streams and drinking water and encouraged vermin. Improved public health as a result of such efforts highlighted how planning and intervention could positively impact on the quality of city life (Schrader, 2012a). The voice of public health professionals has remained influential in urban planning and infrastructure provision in New Zealand, resulting in increased standards for infrastructure. For example, earlier standards for drinking water set in 2005 by the Ministry of Health were superseded by new standards in 2008.

Urban design to deter crime

The belief that managing the built environment could reduce serious social problems such as "larrikinism" in New Zealand dates from the 1920s (Perkins et al., 1993). But the notion that urban design could reduce crime achieved prominence with the publication of Jane Jacobs' book *The Death and Life of Great American Cities* in 1961. Jacobs advocated the use of high-density, mixed-use communities to stimulate increased street traffic day and night to deter criminal and anti-social behaviour. Criminal activity, she argued, is attracted to secluded spaces and crime is more likely to occur when criminals believe they will not be caught. Jacob's "eyes on the street" concept, asserting that a place can be made more secure by populating it, is referred to in the Ministry of Justice publication *National Guidelines for Crime Prevention through Environmental Design in New Zealand* (2005). The *Guidelines* recognise 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.

Broader benefits for quality of life

The belief that well-designed surroundings would materially improve quality of life more broadly originated with the "environmentalism" of the garden city movement in the early twentieth century. The movement started in Britain in response to concerns about the deleterious effects of inner-city slums on children. The state of inner city residential areas in New Zealand was a particular concern in the post war period when "right or wrongly… many believed that New Zealand towns and cities had fallen into a state of chaos"

(Gatley & Walker, 2014, p. 19). Garden city planning offered low-density housing, different road widths to accommodate different traffic densities and cul-de-sacs to encourage social interaction. New state housing suburbs after the Second World War were constructed with these ideals in mind (Schrader, 2012b). The state housing programme in the Hutt Valley was the most ambitious, with three suburbs (Epuni, Naenae, and Taita) constructed along garden-city principles. Those principles included curved streets to follow the topography and counter monotony, reserves, community centres, and single-dwelling sites.

A new Local Government Act in 2002 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 new Act. In the 2000s, central government also appears to have directly promoted urban design as a means to achieve social and cultural goals. The Ministry for the Environment's *New Zealand Urban Design Protocol* (2005) states:

> Quality urban design can help us avoid some of the problems of poorly designed low-density developments that we have experienced in the past. These problems have included: traffic congestion, unsustainable energy use, overloaded urban infrastructure, a lack of distinctive identity, social isolation, and reduced physical activity with its associated problems such as obesity, diabetes and heart disease. In many of our cities we have seen a trend towards multi-unit developments (these accounted for 20-30 percent of all building permits approved in Auckland over the past five years). Quality urban design can help ensure multi-unit developments provide attractive, liveable and affordable options, without impacting on our heritage and distinctive identity, our privacy, or overloading our urban infrastructure. (MfE, 2005, p. 9)

Adherence to this protocol is one of a number of criteria 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)).

F2.5 The idea that urban design can ameliorate social problems is longstanding, and continues to be promoted through initiatives such as Special Housing Areas.

The costs of urban planning

While there are benefits associated with good urban design, the costs may outweigh the benefits. The Commission questions whether adequate consideration has been given to the costs as well as the perceived benefits of planning.

The *New Zealand Urban Design Protocol* (2005), for example, 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). But planning based on urban design principles is not without cost. This chapter establishes significant aggregate costs of current planning approaches for society, and Chapter 5 points to some unjustified costs from specific urban design requirements. Urban planning decisions, such as maintaining "our heritage and distinctive identity" (p. 9 of the protocol as above) is not without a significant opportunity cost. Like height or other density restrictions, maintaining the heritage character of large parts of residential suburbs close to city centres has a cost in terms of the ability to economise on the use of land, with consequent costs for individuals and the community. These costs should be recognised. The Commission also questions, as it did in its 2012 *Housing affordability* inquiry, whether the discipline of planning has the tools and processes to evaluate and reconcile the multiple objectives it seeks to influence through urban design.

F2.6 Proponents of good urban design articulate the consequent benefits well, but appear to take much less account of the costs of individual design requirements or their aggregate effects.

Community participation and the politicisation of planning

From the early days of settlement in New Zealand, planning has been the subject of public interest and debate. Early planning legislation made no formal provision for community consultation or participation in decision making about planning, but that did not mean the public were disinterested or not involved.

The early 1900s saw widespread public debate about and engagement with town planning. Various planning schemes were mooted and proposed (Perkins et al., 1993, p. 18). Large numbers of people attended public lectures and conferences to discuss planning issues. The anxiety that the urban problems of Britain might become entrenched in New Zealand's cities led to widespread middle-class support for the ideas of the garden city movement in New Zealand. In response, a number of active clubs and societies became involved with planning and planting projects. In the post-war period, fear of slums developing in the cities was a significant public concern. Yet, at the same time, urban expansion outside municipal boundaries also led to concerns about "sprawl" and the loss of productive agricultural land from low-density suburbanisation (Perkins et al., 1993; Gatley & Walker, 2014).

The 1970s saw a trend towards increased formal provision for community participation. The Local Government Act 1974 introduced "community councils", which could represent local opinion and encourage and coordinate activities for the general wellbeing of the residents in the community. This increased emphasis on community participation was also evident in the Town and Country Planning Act 1977. That 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.[10] The 1977 Act also introduced public consultation, by enabling submitters to make submissions about draft schemes.

The focus and style of planning changed during this time. Planning became more politically orientated and based upon bargaining, and conflicts were brought into the open forum of local government politics (Perkinset al., 1993). The RMA introduced 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 could appeal certain matters to the Environment Court. Councils had to consult with specified people and groups when making plans and policy statements.

F2.7 The public have always shown a strong interest in planning matters. Over time, successive planning frameworks have included more formal rights for the public to be consulted and/or object to land use rules and proposals.

Urban planning is a form of regulation and, like all forms of regulation, is subject to "capture" by groups who stand to benefit from its application. For example, urban planning can limit the form, scale and pace of change in communities, thereby protecting the amenity of existing residents. Critics of urban planning such as Adams (n.d.) argue that planning is always open to capture by wealthy or influential residents to promote property values and special interests. For example, zoning of land use appeared in the United States in the 1880s, ostensibly to separate incompatible land uses such as industry and residential areas. Yet the first zoning ordinance in the United States – in Modesto, California in 1885 – was used to restrict laundries and wash houses (all operated by Chinese) to a section situated on the west or 'wrong' side of the tracks. Adams argues that the planning practice of today is even more focused on protecting property values.

The impact of public participation and opinion in planning was demonstrated during the Auckland amalgamation process. A number of proposed policies and plans were changed in response to public opinion. For example, the Proposed Auckland Unitary Plan (PAUP) proposed rules that would allow higher-density housing in suburbs. The proposal faced significant community resistance. The Auckland Council eventually scaled back intensification plans that would have rezoned some suburbs to allow terraced housing and apartments (Box 2.3).

[10] Under the 1953 Act only individual landowners directly affected had the right to object.

Box 2.3 Community consultation on the Proposed Auckland Unitary Plan

An Auckland Council report detailed the extensive consultation and engagement undertaken in preparing the PAUP and after its release. The report noted that public opinion was generally opposed to building heights in the PAUP, with 86% of people against the provisions and 14% in favour (Auckland Council, 2013a, pp. 4–5).

Public consultation and feedback also contributed to changes being made to proposed rules on residential zoning in the PAUP. Feedback from the general public, architects and urban designers indicated that the mixed housing zone of the PAUP was too broad in its spatial application and a greater range of heights and densities should be established. As a result of feedback, the Auckland Plan Committee determined to split the residential zone into two zones based on criteria related to proximity to centres and public transport, height and density (Auckland Council, 2013b, pp. 8–9).

The Council, in its Section 32 report, described the changes as an improvement on the original proposals. It said that the change in policy would likely result in

> relatively minor overall variation in terms of dwelling yields across the two split zones, but that the distribution of those dwellings is potentially more acceptable to the public, and a better alignment with wider goals around location of growth into locations that can best support it sustainably". (Auckland Council, 2013b, pp. 8–9)

However, the Ministry of Business, Innovation and Employment (MBIE) submitted that a "deliberate down-zoning" had occurred "between the draft Unitary Plan released in March 2013, and the proposed version, creating a misalignment between areas of high demand and the areas where growth is provided for…" (MBIE, 2014b, p. 7). MBIE said this was an example of the misalignment between the regional-level policy objectives and the district-level provisions aimed at implementing those objectives.

MBIE criticised what it argued was the privileging of short-term interests at the expense of longer-term utility. It said there was little justification for why ostensibly market-attractive areas, such as those near transport and employment, have been zoned at low densities (or lower densities than indicated in the PAUP in March 2013): "inefficient use of market attractive land while protecting the micro-amenity of neighbourhoods in the short-term will seriously compromise the macro-utility of the city as a whole" (MBIE, 2014b, p. 9).

Source: Auckland Council, 2013a, pp. 4–5; Auckland Council, 2013b, pp. 8–9; MBIE, 2014b.

Rezoning to promote development can also be captured by landowners seeking to make gains from the uplift in land values. A recent study by two researchers at the University of Queensland investigated landowner relationship networks and political lobbying behaviour between 2007 and 2012. In Queensland, the Urban Land Development Authority took planning control away from local councils in selected areas in order to increase the speed and scale of development. The process increased land values in the selected areas. The research found that "connected" landowners owned 75% of land inside the rezoned areas, and only 12% outside, capturing A$410 million in land value gains out of the total A$710 million from rezoning.[11] The authors conclude that if their study is representative, then over the last few decades billions of dollars of economic rent have been transferred from the general population to connected land owners through rezoning in Australia (Murray & Frijters, 2015).

The next section presents data on land and property values in New Zealand and looks at the impact of land values on the size and price of new dwellings. Section 2.6 also provides data on the growth in density of

[11] Relationship networks comprise corporate ownership and directorship connections of land owners and their companies, connections from employing professional lobbyists, and property industry group membership. There were marked differences in the networks of the successful property developers and the unsuccessful ones.

some New Zealand cities and reports on an attempt to measure the regulatory stringency of land use regulation in nine of New Zealand's fastest growing councils.

2.6 What do we find in New Zealand's fastest growing areas?

New Zealand has experienced relatively high population growth over the past decade compared to the OECD average. Much of this growth has been concentrated in urban areas (Figure 1.4).

The price of land in urban areas

Section 2.3 sets out the impact the competing dynamics of population growth and local council polices on the price of land:

- residential land prices in unconstrained cities will rise as the population increases (Figure 2.4);
- density controls, such as a height restriction, would see the price of land decline where the controls "bite" in areas closer to the centre of a city, and rise further out (Figure 2.5);
- poorer transport investment and higher commuting costs increase the price of land closer to a city's centre (Figure 2.6); and
- an urban limit increases the price of land just inside the limit.

Regulations that restrict the number of dwellings that can be built on each unit of land reduce the value of that land to a developer, because such restrictions limit its use.[12] Yet when the population is growing, the overall price of land will still be more expensive than in the absence of restrictions due to constrained supply.

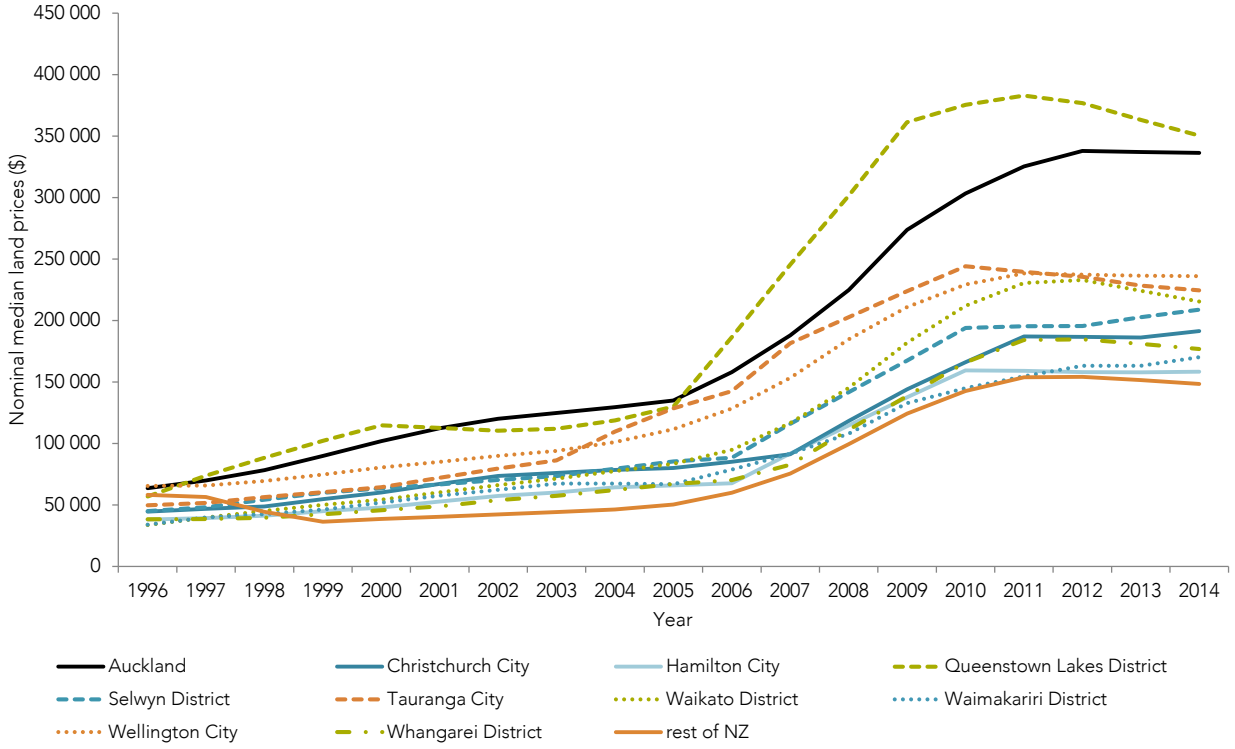
Figure 2.8 shows the growth in land values in the 10 high-growth councils that are the focus of this inquiry. Prices in all areas increased, but Auckland and Queenstown nominal land prices rose dramatically after 2004–2005. In Auckland's case, the price growth might reflect the introduction of the Local Government (Auckland) Amendment Act 2004. This Act:

- required all Auckland territorial authorities to give effect to the Auckland Regional Growth Strategy, which strongly promoted meeting population growth through intensification; and, at the same time,
- prohibited territorial authorities or the Environment Court from extending the Auckland MUL without the agreement of the Auckland Regional Council.

However, this assumes that by 2004 the available residential land in Auckland was already becoming scarce.

[12] Restrictions can include height restrictions, but also ceiling heights, minimum floor-space requirements, maximum site coverage, and rules about the required setback from the street.

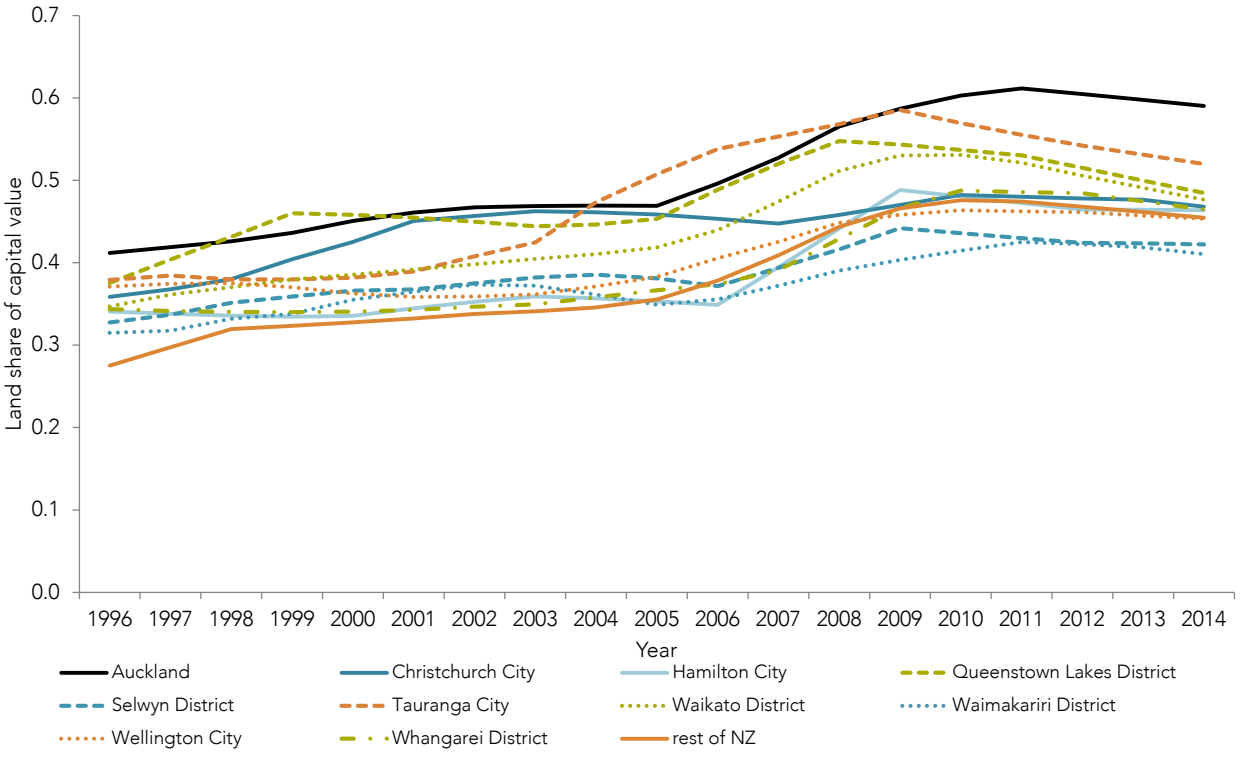
Figure 2.8 Nominal median land values



Source: Productivity Commission analysis of Quotable Value data.

Land value comprises between 40% and 60% of total property value in the 10 high-growth councils that are the focus of this inquiry (Figure 2.9). The land value share of total property value is now significantly higher in Auckland than in other cities.

Figure 2.9 Land value as a share of total property value



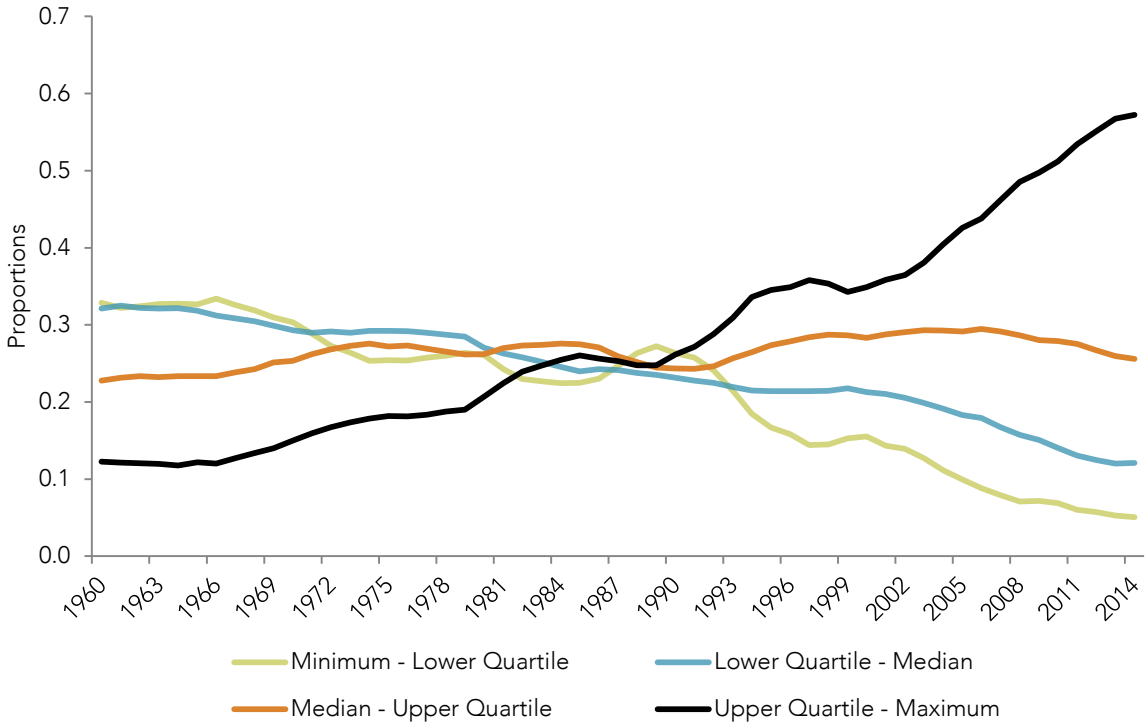
Source: Productivity Commission analysis of Quotable Value data.

F2.8 Land values in major New Zealand cities and high-growth areas increased significantly in the middle of the last decade, both in nominal terms and as a share of total property values.

Skewed dwelling production

The Commission noted in its *Housing affordability* (2012) report that rising land costs contributed to the decline in the production of lower-cost new dwellings (p. 43). The effect can be seen in the production of more expensive dwellings (Figure 2.10).

Figure 2.10 The value of new housing relative to existing housing stock (5-year averages)



Source: Productivity Commission calculations using Quotable Value data.

Note:

1. In the early 1960s the value of most new housing was lower than the average value of existing housing. In comparison, more than half of new builds in 2014 were valued in the upper quartile of all housing stock.

Professor Laurence Murphy, of the University of Auckland's Business School, offers an explanation for why only top-of-the-market dwellings are constructed, and how they inflate housing prices. Murphy argues that it requires an understanding of the factors that underpin the decision making processes of developers. He explains the residual value model:

> Residual value is a central concept affecting all development feasibility studies and refers to the maximum bid that a developer will make for a site in order to undertake a particular development (Jowsey, 2011; Whipple, 2006). The residual value is simply the difference between the total value of the proposed development and the total costs of construction (including profit). (Murphy, 2013, p. 4)

Typically, banks want to see where the developer's return is coming from and a developer needs to construct dwellings that sell at the top of the market if the developer is to be a successful land purchaser. Murphy argues that 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 the developer who believes that by building a more expensive house, they can sell the total property for $700 000 (see Table 2.1 for an example). This is what drives the race to the top for both new house prices and land prices.

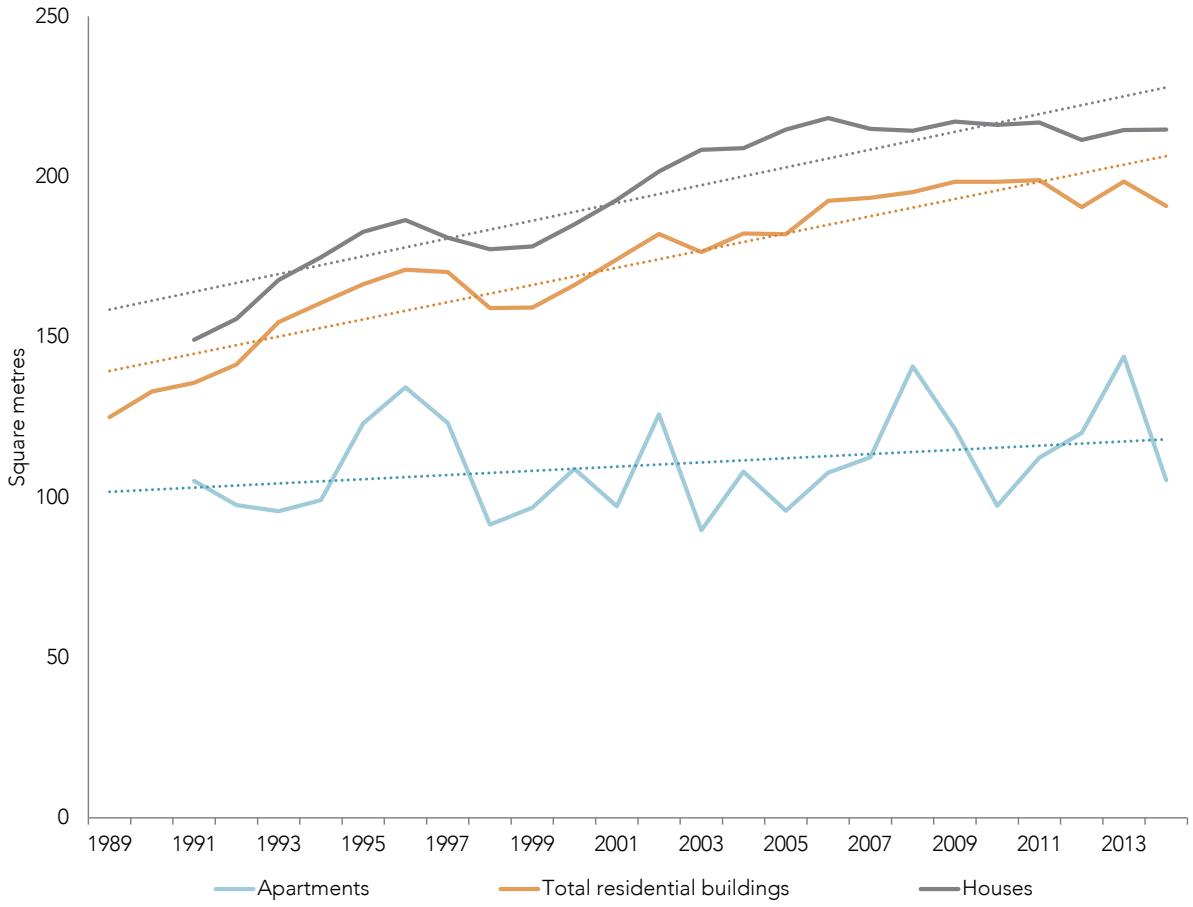
Table 2.1 Scenarios demonstrating the effect of the residual value model on land price

Unit price	Number of units	Gross development value	15% profit required	Costs of construction	Willing to pay for land
$500k	10	$5m	$750k	$3m	$1.25m
$600k	10	$6m	$900k	$3.3m	$1.80m
$700k	10	$7m	$1050k	$3.6m	$2.35m

Source: Productivity Commission, based on panel discussion at the Urban Health and Sustainability – Affordable Housing Summer School, Otago University, Wellington, 11 February 2015.

The average size of new dwellings grew by more than 50% between 1989 and 2014 (Figure 2.11). This growth was driven mainly by larger houses. In contrast, apartments have increased only slightly in average size over the past quarter-century, pointing to their importance as a way of getting more efficient use of land.

Figure 2.11 Average floor size of new dwellings



Source: Productivity Commission analysis of Statistics New Zealand data.

F2.9 High land prices encourage the production of larger and more expensive housing. In New Zealand, the average size of new dwellings has increased by more than 50% since 1989.

Differing intensification patterns in New Zealand cities

In an unconstrained market, cities facing population growth would expect to see rising land prices at the urban centre and greater intensification of dwellings as developers and purchasers try to make more

economical use of land. While few, if any, land markets fit the description of an "unconstrained market", the Alonso-Muth-Mills model provides a useful baseline against which to compare the actual performance of cities. The Commission analysed changes in the density of selected New Zealand cities over three census periods (2001, 2006 and 2013).[13] The results of the Commission's analysis are outlined below, in Figure 2.12 to Figure 2.16. The figures describe the relative contribution to intensification of different segments of the city (defined in terms of 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.

Some New Zealand cities (eg, Wellington and greater Hamilton) behave largely as the Alonso-Muth-Mills model would predict, with intensification concentrated towards the urban centre, especially between 2001 and 2006 (Figure 2.12 & Figure 2.13).

Figure 2.12 The contribution to intensification by distance from the centre of Wellington

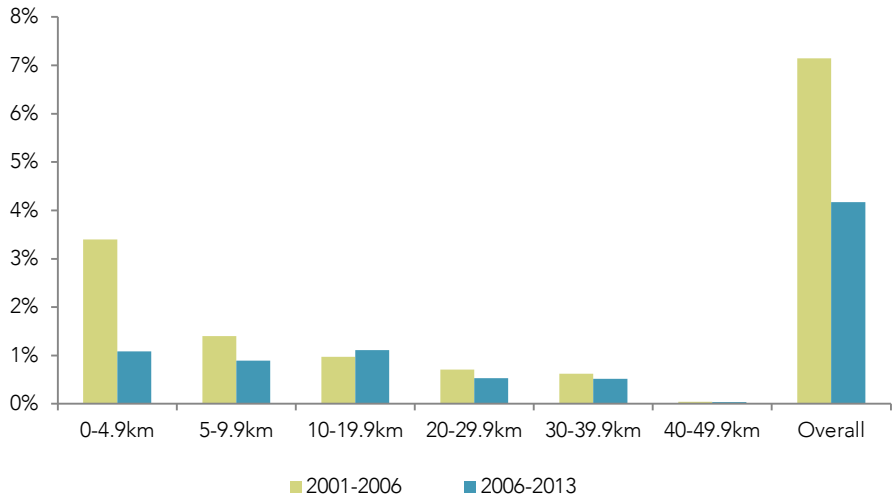
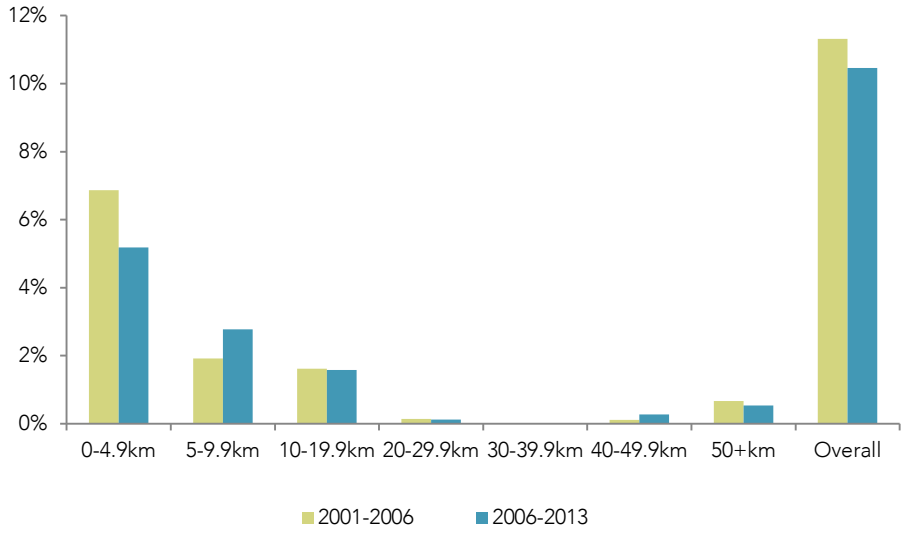


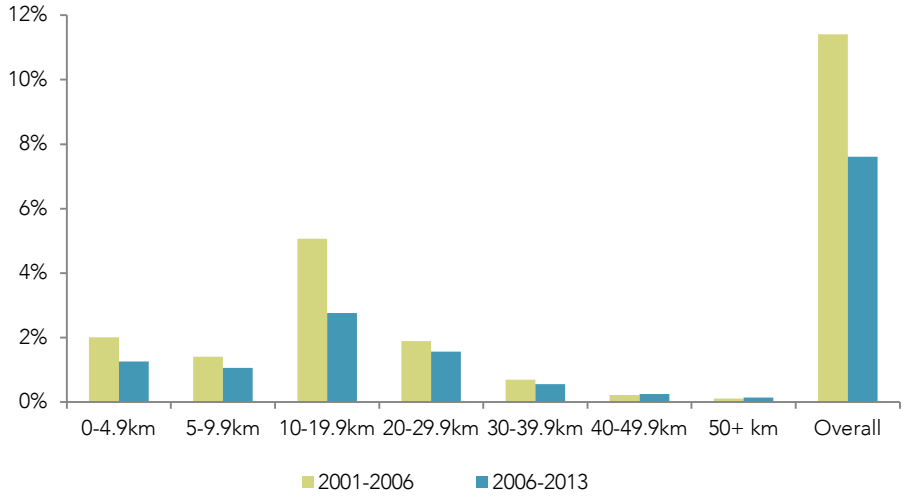
Figure 2.13 The contribution to intensification in the Waikato by distance from the centre of Hamilton



Other cities have behaved differently. In Auckland, the centre has 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 (Figure 2.14).

[13] The Commission's analysis produces results that can be compared to that predicted by the Reserve Bank of Australia as the Kulish, Richards & Gillitzer (2012) model although these results are for dwelling density rather than population density. The Commission has focused on dwelling density because population intensification may simply reflect overcrowding rather than a housing supply response. However, the results of the dwelling density-based analysis should not materially differ from the outcomes predicted by Kulish, Richards & Gillitzer (2012), as their modelling assumes constant household sizes. As a result, increases in population density in the Kulish, Richards & Gillitzer (2012) model equate to increases in dwelling densities.

Figure 2.14 The contribution to intensification by distance from the centre of Auckland

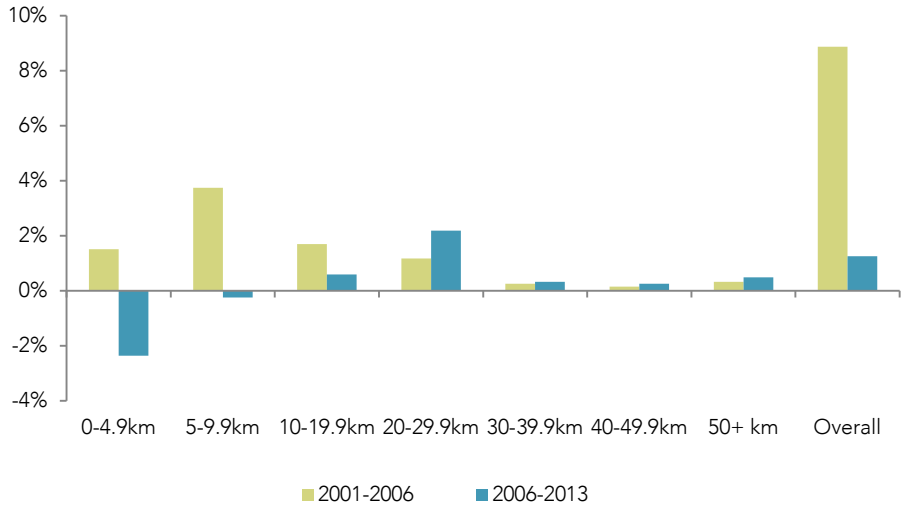


A number of commentators have noted Auckland's unusual density profile. Hill Young Cooper concludes that when Auckland's

> 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)

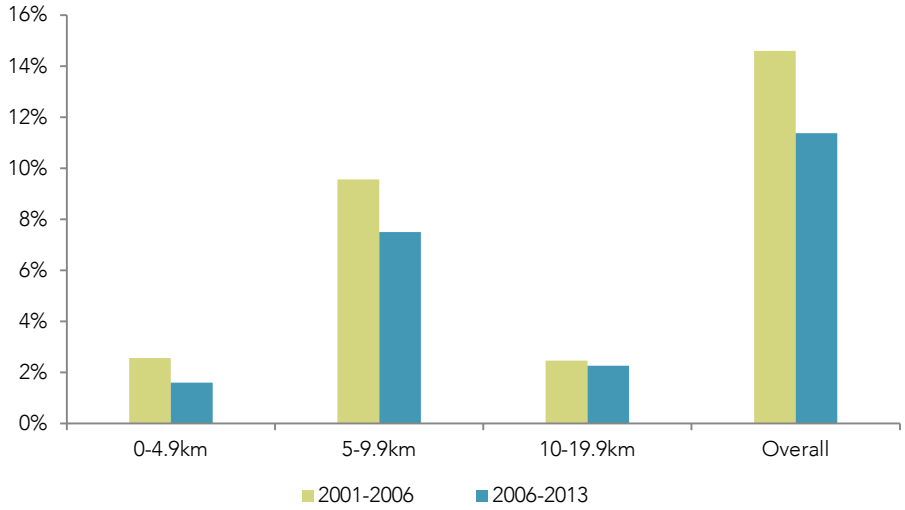
In greater Christchurch, the centre of the city (ie, up to 10 km from Cathedral Square) detracted from overall intensification after 2006 (Figure 2.15). This most likely reflects the 2010 and 2011 earthquakes, which destroyed a large share of the housing stock in the city. The largest contribution to intensification after 2006 occurred 20–30 km from the centre, in the Selwyn and Waimakariri districts. 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.

Figure 2.15 The contribution to intensification by distance from the centre of Christchurch



Tauranga experienced relatively high overall intensification rates (an increase of more than 14% between 2001 and 2006, and more than 11% between 2006 and 2013) in a comparatively small area of land (Figure 2.16). The lion's share of the intensification effort (ie, more than half) was made by suburbs 5–10 km from the centre.

Figure 2.16 The contribution to intensification by distance from the centre of Tauranga



Source for Figure 2.12 to Figure 2.16: Productivity Commission analysis of Statistics New Zealand data.
Notes to Figure 2.12 to Figure 2.16:

1. Distance to centre of each city studied is measured as a linear distance between centres and each area unit, and is categorised into seven categories: <5km, 5–<10 km, 10–<20 km, 20–<30 km, 30–<40 km, 40–<50 km and 50 and more km.
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 $\frac{dwelling_{it} - dwelling_{it-1}}{\sum_i dwelling_{it-1}}$.

F2.10 New Zealand cities have differing intensification profiles. Wellington and Hamilton have seen significant intensification close to the city centre. In other cities, the biggest contribution to intensification has occurred in outlying suburbs.

What is known about the comparative regulatory stringency of councils?

No consistently collected or comparable data is available on the stringency of land use regulation in New Zealand. The Ministry for the Environment collects information from local authorities on process aspects in the implementation of the 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.

Some detailed local information is available in council 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 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).

F2.11 No consistently collected or comparable data is available on the stringency of land use regulation in New Zealand.

The Commission contracted NZIER to survey New Zealand's fastest-growing councils about aspects of land use regulation within their jurisdictions. The survey methodology follows that used by Gyourko, Saiz and Summers (2008) to create the WRLURI.

Ten councils were invited to participate in the survey.[14] 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.[15] 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.[16]

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 the New Zealand context where there is a statutory requirement to process resource consents within 20 working days.

Rules and characteristics that influence land use regulation

Figure 2.17 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, charges that developers may incur for infrastructure development and charges instead of providing open spaces. While similarities exist across most councils, 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 and Tauranga City Councils, and Waikato and Selwyn District Councils report characteristics in this sub-index that are likely to lead to them being more stringent in their application of land use regulation. NZIER (2015) provides more detail on the survey responses relating to council characteristics. 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. Courts are reported to be relatively more involved with planning by the Queenstown Lakes District Council (QLDC). Tauranga City Council reports relatively high values for the influence of the city budget on residential development. Tauranga City Council and QLDC note particularly strong citizen opposition to developing apartments and townhouses.

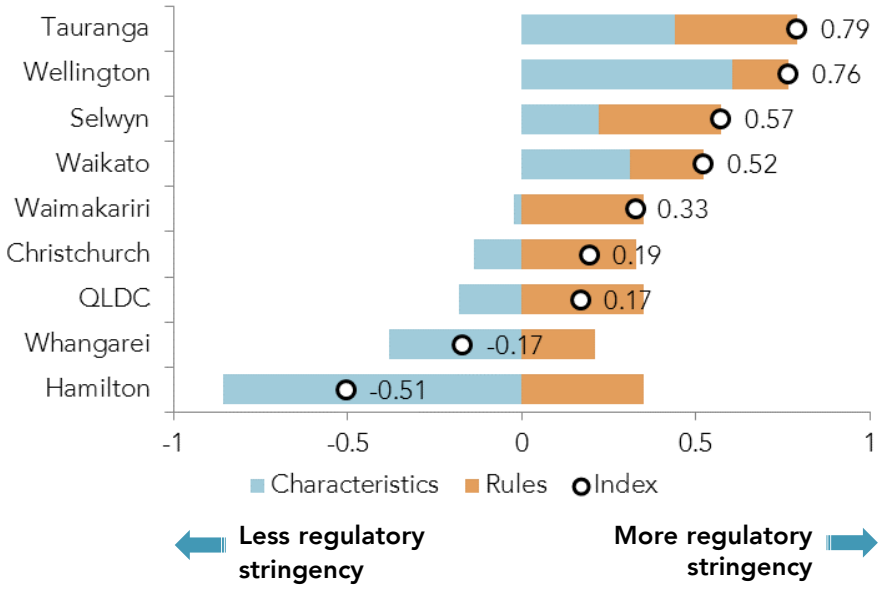
In combining the "rules" with "characteristics", the overall picture reported in the responses is one of considerable variation between councils. According to the index, the Waikato and Selwyn District Councils, and the Wellington and Tauranga City Councils have the more stringent regulation, Waimakariri 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.

[14] 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.

[15] The full report (NZIER, 2015) 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.

[16] The Commission is aware, for example, that Hamilton City Council's responses are inconsistent with the information contained in their submission to the inquiry. Even so, the survey represents the first attempt at measuring land use regulation in New Zealand using an internationally recognised methodology.

Figure 2.17 Variation in the stringency of land use regulation across nine New Zealand councils



Source: NZIER, 2015.

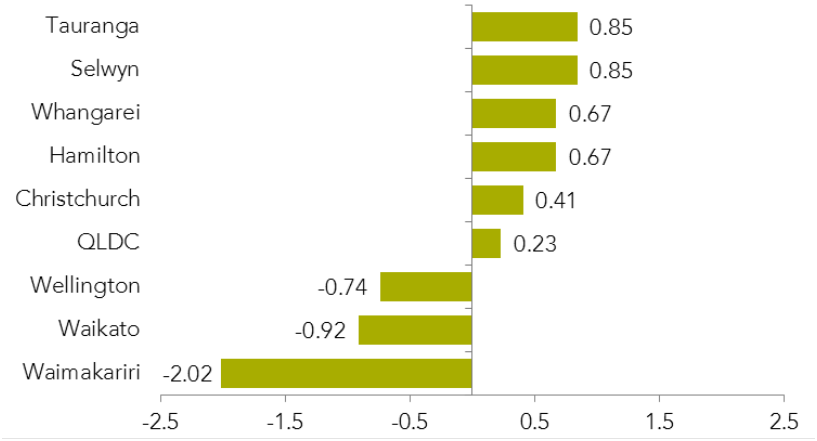
Note:

1. The index combines the impact of "rules" and "characteristics" sub-indices formed from responses to particular survey questions. The survey questions responses 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.

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 time frames for attaining a consent than the other council respondents. Selwyn reports a relatively short time (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 2.18 summarises the differences across councils.

Figure 2.18 Delays in acquiring approval for development across councils



Source: NZIER, 2015.

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 2.17.

F2.12

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.

2.7 Impacts on people and the economy

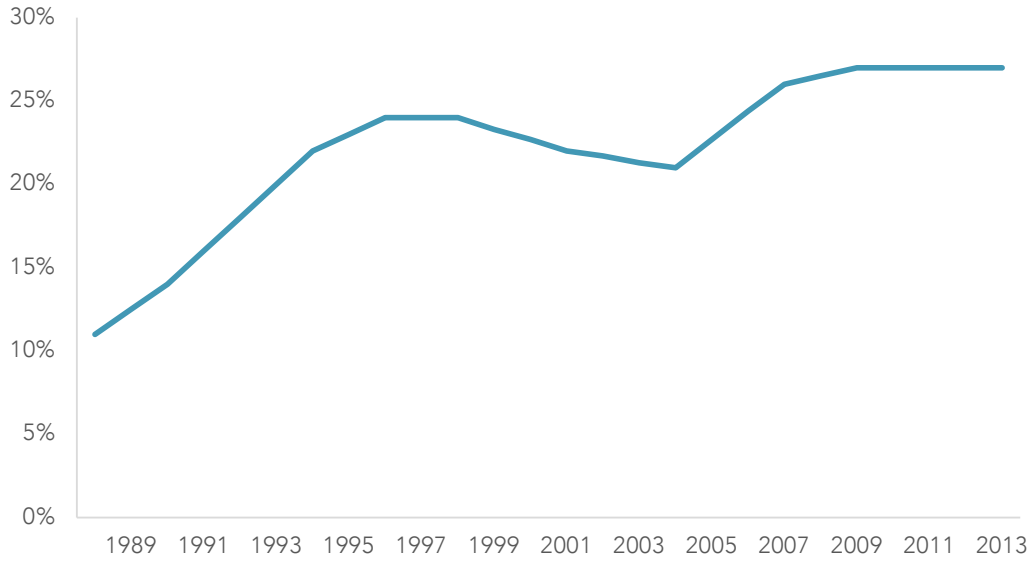
High land prices, regulatory barriers that restrict the supply of land (or prevent more efficient use of land) and skewed housing production have a number of negative impacts on individuals and on the New Zealand economy. New Zealanders pay a comparatively high share of their incomes on housing and face a housing supply that is increasingly ill-suited to their needs. People on lower incomes have fewer opportunities to enter the property market and accumulate wealth. The high cost of housing and a shortage of suitable housing can lead to overcrowding. High housing prices also constrain the ability of the economy to adapt to the demand for labour, and may lead to greater economic instability.

Housing market impacts

The price of housing and the share of income spent on housing costs

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 households' spending on housing will increase.[17] Figure 2.19 depicts the percentage of households that spend more than 30% of their disposable income on housing in New Zealand. The average share of disposable household income spent on housing is high in New Zealand compared to many other OECD countries (Figure 2.20).

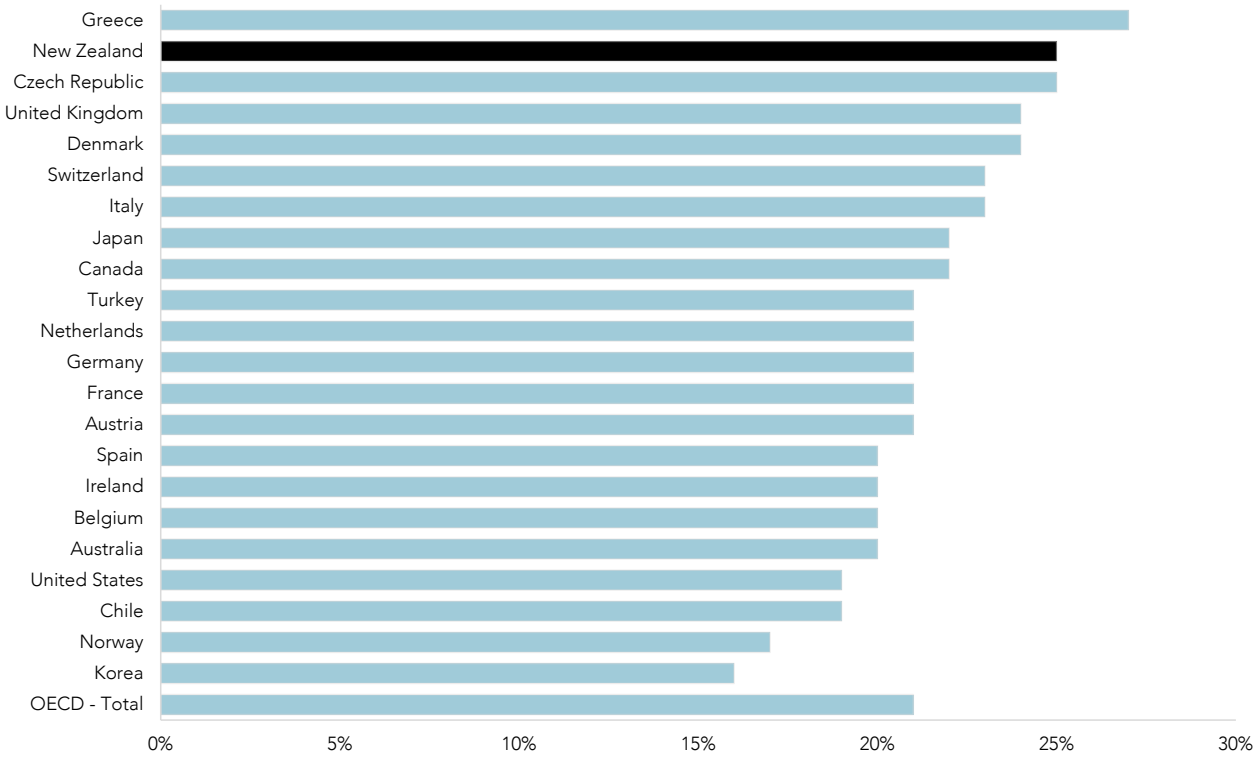
Figure 2.19 Share of households that spend more than 30% of their disposable income on housing in New Zealand



Source: Statistics New Zealand, 2014a.

[17] This spending includes both rent and mortgage expenses.

Figure 2.20 Average share of disposable household income spent on housing: selected OECD countries, 2012



Source: Statistics New Zealand, 2014a.

Note:

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

Housing and tenure choice

Restrictions on density prevent the construction of smaller and less expensive dwellings on smaller parcels of land closer to the centres of cities. This means that people who do buy a property closer to the centre of a city are restricted in their choice of housing type and may end up buying or renting a property that is larger than they might have preferred. Restrictions on density also 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.

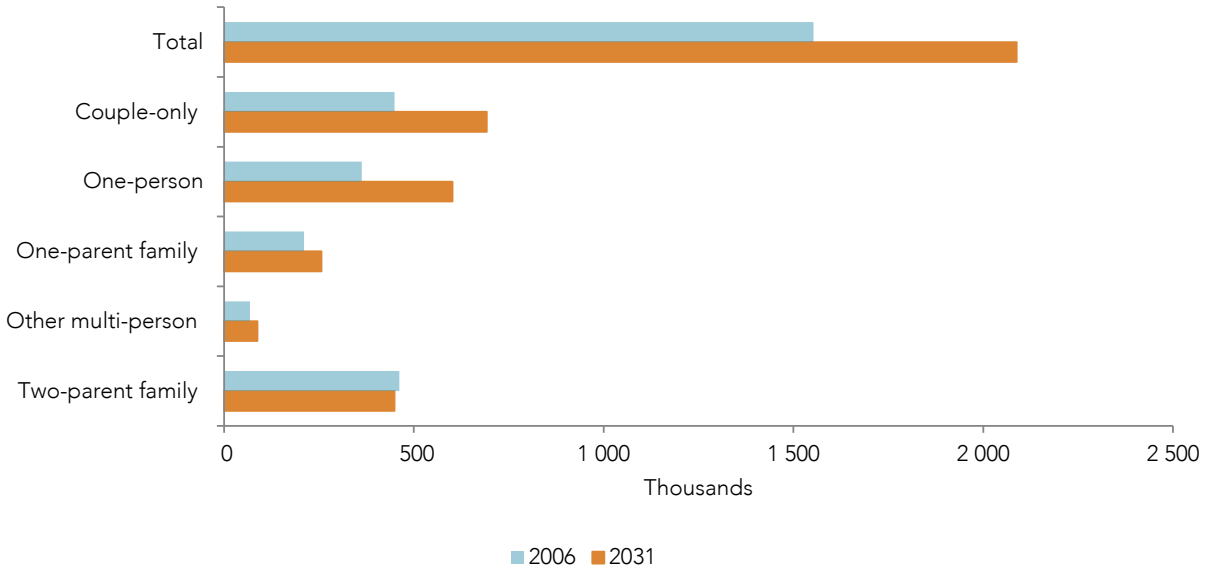
Section 2.6 explained how higher land prices led to the production of larger and more expensive housing. The tendency of New Zealand housing markets to produce larger, more expensive dwellings is likely to be increasingly at odds with demand because of demographic trends. The average size of households is forecast to shrink over the coming 20 years (Table 2.2). The number and proportion of couple-only and one-person households is projected to increase with most of the expected growth in population coming from single-person and couples-only households (Figure 2.21).

Table 2.2 Projected population and household growth, 2011–2031

	Population	Households	People per household
2011	4 425 000	1 672 000	2.6
2031	5 149 000	2 089 000	2.4

Source: Statistics New Zealand, 2010; 2012b.

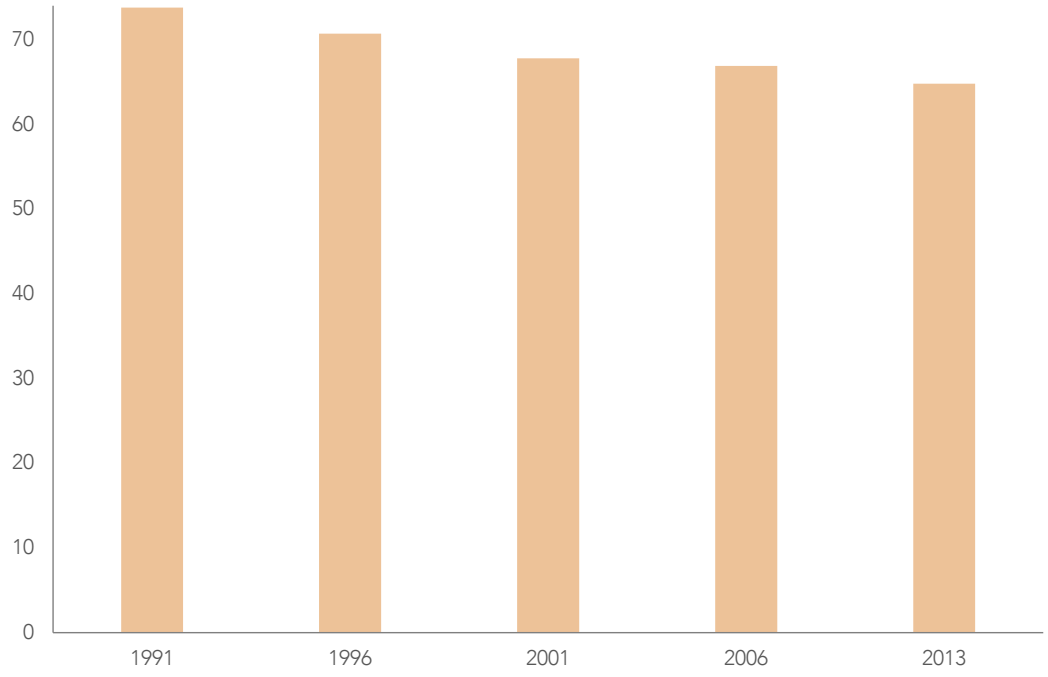
Figure 2.21 Projected changes in New Zealand household types, 2006–2031



Source: Statistics New Zealand, 2010.

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 2.22) and the rising importance of the private rental market.

Figure 2.22 Percentage of households that owned or partly owned their dwelling or held it in a family trust



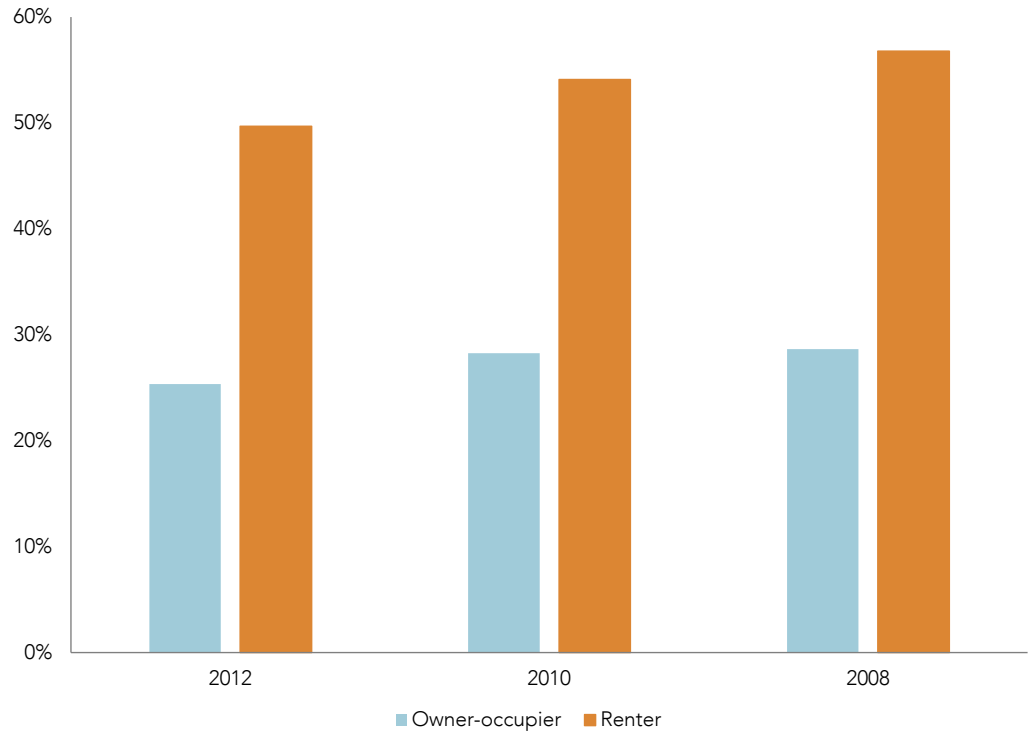
Source: Productivity Commission analysis of Statistics New Zealand data.

In its 2012 inquiry into *Housing affordability*, the Commission took the view that it is desirable that the housing market work in such a way as to maximise the options available for housing 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 2.23).

Figure 2.23 Percentage of people reporting major problems with their housing, by tenure type



Source: Productivity Commission analysis of Statistics New Zealand data.

Social impacts

A disproportionate impact on the less 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 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)

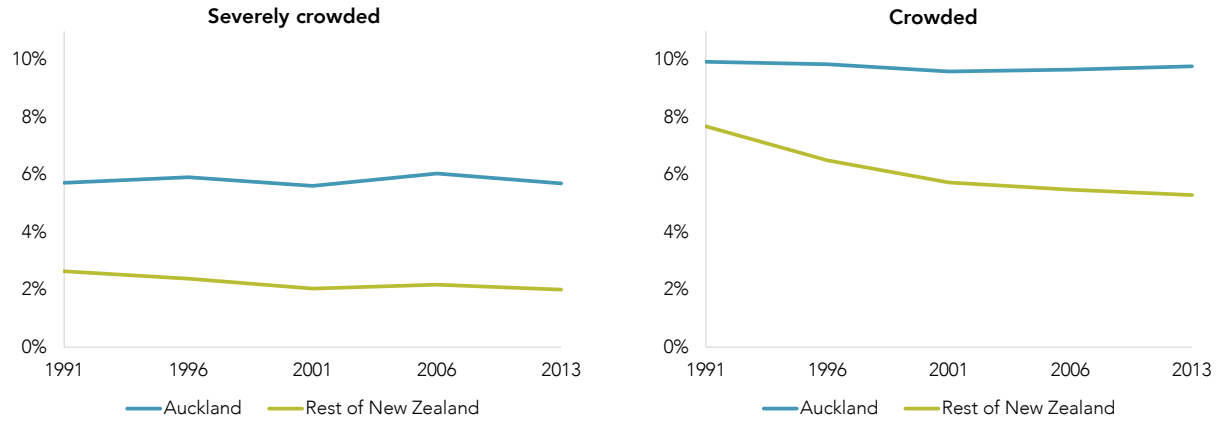
The effect is a combination of an urban limit and other regulatory constraints that limit the density within the city. Density controls tend to result in less well-off people moving out towards the urban fringe, while the urban limit restricts the supply of lower-priced land on the fringe. This increases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

Household crowding

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, 2012a), it has remained high in Auckland (Figure 2.24). 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 leading to 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 2.24 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.

Pressure on public finances

Ultimately, government bears part of the cost where unaffordable or inadequate housing leads to higher demands on the welfare system to meet housing needs (through, for example, accommodation supplements and state-sponsored social housing). These expenses are already significant, with yearly public financial support to assist with the housing costs of individuals estimated to exceed $2 billion in 2015/2016.[18]

F2.13 Stringent land use regulations have a disproportionate impact on the less well-off and put pressure on public finances.

Impact on wealth and 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

[18] 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).

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) comment 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 reveals that:

- Most of New Zealanders' assets are in their homes 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, 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 2.25 Average net wealth by decile

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

F2.14 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. For example, a one percentage point reduction in the long-run average level of interest rates raises predicted prices by more than 80% in relatively constrained cities with above-median demand growth rates and below-median property tax rates, and by less than 10% in otherwise identical unconstrained cities. (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. Henry George made this point in 1879:

> The confident expectation of increased prices produces, to a greater or lesser extent, the effects of a combination among landholders, and tends to the withholding of land from use, in expectation of higher prices. (George (1960) [1879] p. 125)

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 increases 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.

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 has 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. Reducing regulatory barriers would therefore increase a country's GDP.

> 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.

F2.15 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.

2.8 Conclusion

Cities are national assets. When they function well, they contribute to higher national incomes and wealth (through higher productivity) and better quality of life (through having sufficient scale to support a wider range of amenities). It is in the country's interest to have large cities that are able to grow and accommodate the people who move to cities seeking the greater employment and life opportunities available there.

In the absence of constraints, cities will respond to population increases by making more efficient use of land, through building higher buildings and smaller dwellings in their centres. The functioning of cities can also be enhanced by well-targeted policy interventions, such as investments in transport infrastructure. However, the interest of the nation in having cities grow may not be reflected in local choices and planning systems. Local residents may not wish to bear the costs of growth (eg, congestion) and may act to slow or constrain the development of their cities. Where such constraints arise, they can create costs and risks for the wider public and especially for those on lower incomes. Easing unnecessary constraints to allow cities to reach their full potential is a key focus of this inquiry.

3 Integrated planning

Key points

- Effective urban planning and development systems link decisions about land use (eg, zoning) with the provision of infrastructure (eg, water) and other services, such as transport.
- New Zealand's planning system creates a complex web of legislative obligations and plans, which can make it difficult to effectively and efficiently coordinate land use, transport and infrastructure decisions.
- Many of the local authorities within the scope of this inquiry have tried to overcome problems with the legislative system by developing non-statutory spatial plans. These spatial plans act as linchpins for other statutory plans and local authority strategies.
- Little data is available about the relative effectiveness of spatial plans in releasing sufficient land for residential development. Even so, submitters identified a number of benefits from such plans, including greater intra-regional cooperation and understanding, more efficient infrastructure use and investment, and a better ability to respond to crises or new policy initiatives.
- Many spatial plans (and their associated Resource Management Act (RMA) plans) impose urban limits and set density or intensification targets. The permanence of the urban limits or hardness of density targets vary between individual plans. These policies need to be designed with care and monitored, to avoid creating negative impacts on housing supply.
- A number of local authorities expressed frustration at the statutory consultation and analytical requirements involved in translating spatial plans into RMA regulatory plans. However, the Commission considers that these statutory requirements help to ensure that land use regulation is well-designed and that affected parties have the opportunity to be heard.
- Speeding up the translation of spatial planning processes into land use regulation, without unduly compromising analytical rigour or consultation, is likely to require the development of a new legislative avenue for larger or faster-growing cities. This could combine infrastructure strategies, longer-term transport planning, longer-term strategic thinking about the growth of the city by councils and the development of land use rules.
- The new legislative avenue for cities should be voluntary and tightly focused on activities of high importance to the functioning of cities and the demand for land. Future plans prepared under the new legislative avenue should be developed in partnership with the full set of central government actors whose services matter for the functioning of cities. Given that greater central government involvement in spatial planning may have fiscal implications, both Cabinet and the relevant local authority should approve any future plans.

3.1 Introduction

A central task of this inquiry is to "identify leading practices that enable the timely delivery of housing of the type, location and quality demanded by purchasers", including in the areas of planning policies and processes, infrastructure provision, and community engagement.

This and the following two chapters explore leading practices in planning. In identifying such practices, the Commission has drawn on a number of sources, including:

- official reviews of planning policy in Australia, New Zealand and the United Kingdom;
- academic commentary on planning policy; and

- submissions to this inquiry, and the Commission's engagement meetings with local authorities, developers and other stakeholders.

In line with the inquiry's Terms of Reference, the Commission focused on policies and practices that are designed to promote the supply of development capacity for housing, especially for those on lower incomes. The Commission therefore looked at those practices or policies consistently enacted or promoted across jurisdictions that are facing housing affordability issues. The four thematic policies or practices identified were:

1. Systems and processes for integrating land use, transport and infrastructure;
2. Strategies to encourage the supply and use of land;
3. Proportionate and well-targeted land use rules and regulations; and
4. Streamlined approval processes.

This chapter discusses item 1 above – systems and processes for integrating land use, transport and infrastructure. The following chapters will explore items 2, 3 and 4.

3.2 Integrated planning systems and processes

Effective urban planning and development systems link decisions about land use (eg, zoning) with the provision of infrastructure (eg, water) and other services, such as 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.

Legislative framework

New Zealand's planning and development system is governed by three main Acts of Parliament:[19]

- the Resource Management Act (RMA) 1991 authorises, limits or prohibits the use of land, so as to promote "sustainable management";
- the Local Government Act (LGA) 2002 establishes processes to shape the provision of infrastructure that is needed to make land viable for housing; and
- the Land Transport Management Act (LTMA) 2003 establishes processes to shape the provision of transport infrastructure and services.

Each Act creates its own set of institutions and processes.

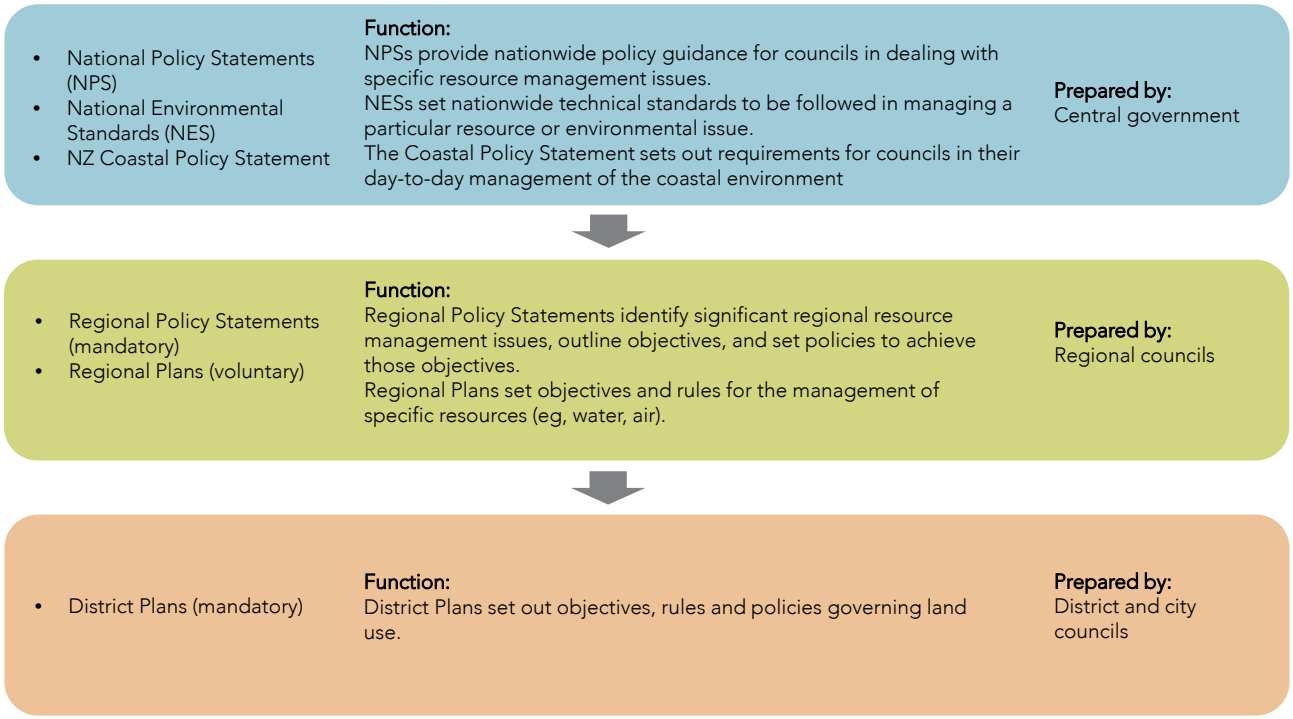
Planning under the RMA

The Resource Management Act creates a hierarchy of plans and standards, starting with National Policy Statements and National Environment Standards at the top, flowing down to District Plans at the bottom (Figure 3.1). Each plan must give effect to those above it – so a District Plan must give effect to the relevant

[19] However, a host of other statutes have an impact on the planning and development system, including the Building Act, the Public Works Act, the Reserves Act, the Property Law Act, the Unit Titles Act, the Health Act and the Local Government (Rating) Act.

Regional Policy Statement (RPS), and both the District Plan and RPS must give effect to a National Policy Statement (NPS) or National Environmental Standard (NES).

Figure 3.1 Hierarchy of RMA plans



District Plans are the main tool used to regulate land use for housing, although other plans may affect particular types of residential development (eg, building 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 a consent is issued. A common way of defining the sorts of activities that can be carried out is to set zones – that is, areas 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.

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 4. Under section 32 of the RMA, local authorities must also prepare evaluation reports for new proposals[20] 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).

Planning under the LGA

The Local Government Act (LGA) 2002 requires local authorities to prepare a Long-Term Plan (LTP) every three years, covering a period of at least ten financial years. LTPs describe the local authority's planned activities and expected performance, the community outcomes it is pursuing, and forecast revenue and expenditure. Local authorities must also prepare Annual Plans spelling out activities, revenue and expenditure for the coming financial year. Unlike RMA plans, LTPs do not contain rules, although the LGA empowers local authorities to make bylaws. In preparing LTPs and Annual Plans, local authorities are obliged to follow statutory consultation processes (see Box 5.2 for more detail).

A number of elements of LTPs are particularly relevant to the supply of land for housing. For example, as part of developing a 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,

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

estimated expenses, and key decisions that will need to be taken about capital expenditure. Infrastructure strategies and issues are discussed in more detail in Chapters 7 and 8.

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 further below.

Planning under the LTMA

The Land Transport Management Act 2003 governs the use of 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 establishes three levels of planning.

- Through the Government Policy Statement on Land Transport (GPS), the Minister of Transport sets out the overall objectives and long-term results sought by the government over the next ten years and the minimum and maximum expenditure ranges for each class of transport activity.[21] A GPS must be issued every three years.
- The New Zealand Transport Agency (NZTA) then develops a 3-year National Land Transport Programme (NLTP). The NLTP 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 and district/city councils.[22]
- Activities proposed for funding in the NLTP must form part of a Regional Land Transport Plan (RLTP), which outlines transport priorities, spending and expenditure over the coming ten years, and planned local road maintenance and renewal and public transport services over the coming six years. RLTPs must be prepared every six years by regional land transport committees (or Auckland Transport, in Auckland).

Once the NLTP is confirmed, local authorities can seek funding for activities carried out in their area.

A complex web of plans

The various requirements of the three Acts create a complex web of plans, with interactions at a number of points (Figure 3.2). This complexity can make it difficult to effectively and efficiently coordinate decisions around land use, transport services and infrastructure provision, as a number of groups and individuals have observed. 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)

The Minister for the Environment's Urban Technical Advisory Group reported that the

> point is often made that the plethora of plans produces confusion, particularly when in some respects they may if not actually be contradictory, will often be inconsistent….A particularly unsatisfactory feature of this inconsistency is a lack of certainty which is introduced into decision making as regards future economic activity. (Urban Technical Advisory Group, 2010, p. 64)

A number of submitters from local government echoed these arguments:

> 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)

[21] The current GPS has 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.

[22] Auckland Transport plays this role in Auckland.

> 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)

Others pointed to the focus of the RMA as the key factor complicating the planning process:

> 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)

> …one of the fundamental difficulties is that the RMA has an 'effects based' focus, so the enquiry can be rather narrow and negative (ie, managing adverse effects). The central government drivers to build economically competitive cities are more positive and from a nationally strategic viewpoint. While the overall aims for greater cities are supported, translating such high-level objectives into local decision-making focused on managing adverse environmental effects is a giant leap of faith. (Tauranga City Council, sub. 47, p. 9)

However, these concerns were not universally held by local authorities, and some rural councils appeared to face fewer difficulties in integrating the three Acts:

> There is more than sufficient scope within the RMA to achieve co-ordination and quality of outcomes in the urban land development process. (Tasman District Council, sub. 25, p. 4)

> Growth needs to be managed effectively and this can only be done through integrated management. In the early days there were challenges, but Councils now have processes in place to ensure integration. (Western Bay of Plenty District Council, sub. 36, p. 3)

Different timeframes across the various planning processes were another source of difficulty:

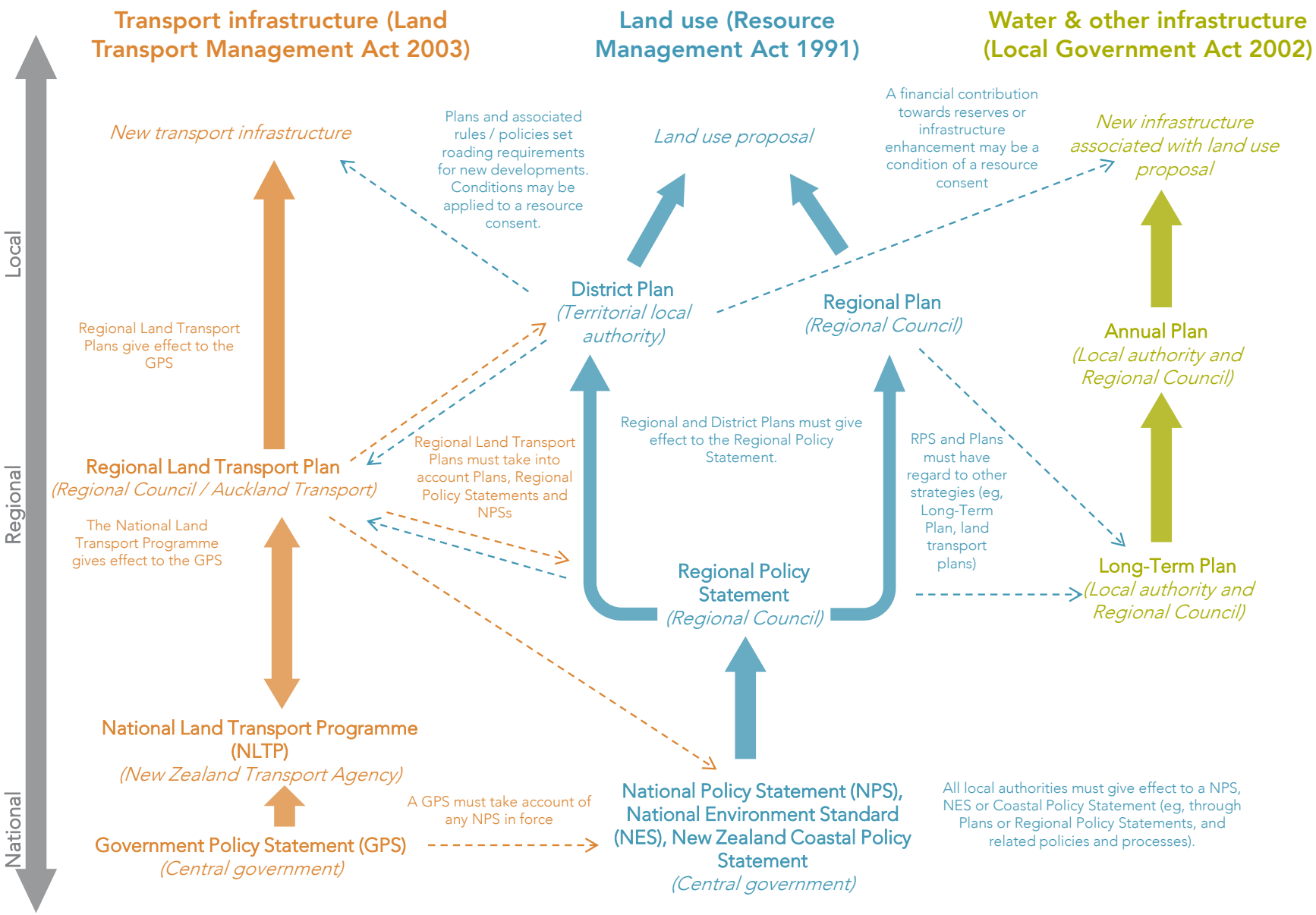
> The RLTP [Regional Land Transport Plan] has a minimum 10 year timeframe allowing consistency to be achieved with Government's 30 year infrastructure horizon, however local authority Long-term Plans and statutory plans under the RMA have a 10 year planning horizon…There are considerable challenges around the timing of separate but linked processes under the LTMA and LGA. For example, the current RLTP 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)

> The transport funding process requires long term planning; preparation of the Regional Land Transport Plan (RLTP) has a lead time of about 18 months from initiation through consultation to adoption. The RLTP is then in effect for three years. The Council Long Term Plan also has a long lead-in time and is also in force for three years and has a 10-year planning horizon. (Auckland Transport, sub. 68, pp. 5–6)

F3.1 A number of parties expressed concerns about the interaction of the three main planning Acts, and their collective impact on the ability of local authorities to coordinate land use, transport and infrastructure decisions.

Local authorities within the scope of this inquiry use a number of methods to integrate land-use, infrastructure and transport planning. These methods are often place-based instruments, ranging from localised planning mechanisms (eg, structure plans that set out the layout of land uses, key infrastructure and transport links, and provide a long-term planning framework for the future growth of a particular site) up to city- or region-wide spatial plans. Much of the commentary and evidence collected through this inquiry focused on the role of spatial plans, and the barriers to their effective and efficient implementation.

Figure 3.2 Stylised presentation of the planning and development system



3.3 Spatial plans

Spatial plans are used in a number of countries and states, although their form and function varies between jurisdictions. Broadly speaking, they try to:

- identify the implications of demographic change and economic growth on the future demand for land and infrastructure in a particular area and on the local environment;
- set long-term (eg, 30-year) directions and goals for the growth and development of a city or region; and
- translate those strategic goals and directions into a "set of policies, priorities, programmes and land allocations together with resources to deliver them" (Office of the Minister for the Environment, 2009, p. 6).

Spatial plans in New Zealand occur at metropolitan, sub-regional or regional levels. Five regional and two metropolitan spatial plans are in place that cover the local authorities within the scope of this inquiry (Table 3.1). Only Auckland Council is legally obliged to prepare a spatial plan (the Auckland Plan). Sections 79 and 80 of the Local Government (Auckland Council) Act 2009 set down requirements for the Auckland Plan's contents and development. The other plans were prepared at the initiative of participating councils, using the consultation processes in the LGA. None of the spatial plans have regulatory force on their own, and must be translated into RMA regulatory plans (eg, Regional Policy Statements, District Plans) through an additional process.

Table 3.1 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
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 (GCUDS)	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).

F3.2 Most of the territorial authorities that are the focus of this inquiry have spatial plans, or are preparing them.

Strategic focus

The seven spatial plans vary in the spread of issues they cover and their level of focus. The Auckland Plan is the most expansive, with 13 strategic directions, 43 priorities and 74 targets. The targets cover a range of matters, including immunisation levels, export growth, greenhouse gas emission levels, foreign language fluency and home ownership rates.

The Hamilton and Whangarei Urban Growth Strategies have the narrowest focus, laying out the areas in the two cities where growth will be focused in the short- and longer-term and encouraging development within established urban areas. The remaining four spatial plans sit between the Auckland and Hamilton plans in terms of the breadth of issues they cover, and have broadly similar areas of focus (Table 3.2).

Table 3.2 Areas of focus in selected New Zealand spatial plans

Whangarei District Growth Strategy	Future Proof (Waikato)	SmartGrowth (Bay of Plenty)	Greater Christchurch Urban Development Strategy
Sustainable Economy	Centres of Community	Strengthen Visionary Leadership and Collaboration	Enhance environments
Sustainable Environment	Resources and the Environment	Sustain and improve the environment	Enrich lifestyles
Sustainable Society	Services and Facilities	Build the community	Encourage prosperous economies
Sustainable Culture	Governance	Grow a sustainable economy	Effective governance and leadership
Sustainable Infrastructure	Strong and collaborative partnerships with Tangata Whenua	Recognise Tangata Whenua cultural identity and change	
		Integrated Planning and the Settlement Pattern	

Source: Whangarei District Council, 2010; Future Proof, 2009; SmartGrowth, 2013a; GCUDS, 2010.

The spatial plans also have common design and implementation elements. All of the plans:

- are based on population and household size projections, and make projections about the areas where growth will occur and how much land will be needed;
- act as linchpins or umbrellas for a number of other council strategies, plans and regulatory documents; and
- are supported by detailed implementation plans and monitoring arrangements.

Housing and land use

The various spatial plans typically seek to encourage integrated housing land use decisions through the following mechanisms:

- identifying future growth areas, where new or more intensive development will be enabled;
- encouraging (eg, through density targets) 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 "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 3.1).

Box 3.1 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. (NZTA, 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)

F3.3 Inquiry participants report a number of benefits from New Zealand's spatial planning processes, including greater intra-regional cooperation and understanding, more efficient infrastructure use and investment, and a better ability to respond to crises or new policy initiatives.

Q3.1 Is there other evidence of the benefits or costs from New Zealand's spatial planning processes that the Commission should be aware of?

3.4 The need for flexibility and vigilance

The focus of current spatial plans on focusing development within existing or pre-selected areas creates the risk that they may unnecessarily constrain or distort development, in particular through:

- the imposition of urban limits;
- the pursuit of intensification or infill targets; and
- goals around the protection of 'highly productive' agricultural land.

These policy tools need to be applied with care. New Zealand's spatial plans (and the regulatory plans that implement them) vary in how much flexibility they allow to implement these tools.

Urban limits

In its *Housing affordability* report, 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, 2012, 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 New Zealand's spatial plans discussed above apply urban limits (Table 3.3), although they vary in terms of their expected permanence. All of the limits have been designed with the aim of including sufficient land for expected future urban development needs.

Table 3.3 Urban limits in areas with spatial plans

Spatial plan	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, 2012a, section D, para 138).
Future Proof	Yes (proposed)	Proposal to embed settlement pattern in the new Waikato Regional Policy Statement

Spatial plan	Urban limit imposed?	Comment
SmartGrowth	Yes	Settlement pattern embedded in the Bay of Plenty Regional Policy Statement
Greater Christchurch	Yes	Settlement pattern embedded in the Canterbury Regional Policy Statement

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, 2012a). In comparison, the operative Canterbury and Bay of Plenty Regional Policy Statements, 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" (Ibid, p. 176).

F3.4 Most of New Zealand's spatial plans 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 Regional Policy Statements are new; so it is too early to assess their responsiveness to market changes. The SmartGrowth partnership 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)

Infill and intensification targets

All of the spatial plans seek further intensification of existing urban and town areas. However, they vary in the aggressiveness with which intensification is sought (Table 3.4).

Table 3.4 Intensification/density targets

Spatial plan	Intensification/density / infill targets
Whangarei District/Urban	No quantitative targets
Auckland	The Auckland Plan seeks to have 70% of new dwellings built within the 2010 Metropolitan Urban Limit (MUL) by 2041, with "flexibility to provide up to 40% outside the MUL". This objective is reflected in the Proposed Auckland Unitary Plan (PAUP), which sets maximum density limits for individual zones.
Future Proof / Hamilton Urban	Future Proof seeks to reduce 'dispersed rural development' from 17% to 12% of total settlement, and to raise the proportion of growth in Hamilton City resulting from regeneration from 40% to 50% (Future Proof, 2009, pp. 57 and 61). Proposed Waikato Regional Policy Statement 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).
SmartGrowth	Original settlement pattern was based on 70–75% of residential urban growth being delivered through greenfield expansion and 25–30% through infill and intensification development, primarily in Tauranga City. The operative Bay of Plenty Regional Policy Statement embeds the 75: 25 greenfield/intensification goal and 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 • **Urban intensification areas:** an average net yield of 20 dwellings or more per hectare of developable land within each urban intensification area.
Greater Christchurch	GCUDS seeks to shift the current 75% greenfield: 25% brownfield development pattern to 40%: 60% by 2041. This goal is embedded in the operative Canterbury Regional Policy Statement. The Canterbury RPS also 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.

In practice, all planning processes set urban density levels through minimum lot sizes, height limits and other land-use rules. The use of high-level targets in regulatory documents such as an RPS is potentially more flexible and enabling than the traditional approaches, although the final effect will depend on how territorial authorities choose to implement the RPS goals in their District Plans.

Density targets can be problematic where they are set too rigidly or too far ahead of consumer preferences or market viability (Box 3.2). Where this is the case and steps are not taken to release land elsewhere, the supply of development capacity will fall short of demand.

Box 3.2 Experience with infill and intensification in New Zealand

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.

To avoid the risk of development capacity deficits, infill and intensification targets should be:

- monitored and reviewed where market practice significantly diverges from the goals; and
- designed with the commercial viability of targeted sites in mind.

New South Wales provides an example of how to develop commercially viable brownfield land-use rules. 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. (ibid)

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 3.3).

Box 3.3 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	Dwelling potential	Feasible potential	Feasible %
Single-dwelling Housing	9 500	5 600	59%
Multidwelling Housing	145 000	12 200	8%
Apartments	60 500	6 300	10%
TOTAL	215 000	24 100	11%

Source: NSWDPE, n.d.

A similar tool could be useful for New Zealand local authorities, especially given the debates about the gaps between the 'theoretical' and 'actual' development capacity provided by the Proposed Auckland Unitary Plan (see Chapter 4), and comments from submitters that existing local authority feasibility models are over-optimistic in their assessments. Queenstown Lakes District Council, for example, noted that revisions to their 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)

F3.5 Infill and intensification targets that are set too rigidly or too far ahead of consumer preferences or market viability can reduce the supply of development capacity.

R3.1 Urban local authorities that wish to set design infill/intensification targets should ensure that their District Plans provide sufficient commercially viable development capacity.

F3.6 The New South Wales Urban Feasibility Model is a leading practice tool that can be used to develop and test commercially viable brownfield land-use rules.

R3.2 The Ministry for the Environment should explore the potential to develop an Urban Feasibility Model that New Zealand local authorities can use.

'Highly productive' agricultural soils

A number of the spatial plans and associated RMA plans include goals or policies aimed at protecting 'high productive', 'versatile' or 'elite' soils from residential development (Table 3.5). Such soils are very fertile and can be used for many purposes.

Table 3.5 Agricultural soil protection goals and policies

Spatial plan	Policies/goals	Reflected in RMA regulatory plans?
Whangarei Growth Strategy	There is a need to avoid or reduce access to locations that have substantial natural hazard constraints, or are home to high quality soils (2010, p.169).	**Yes:** objective 6.3.13 and policy 6.4.10 of Whangarei District Plan
Auckland Plan	Proposals for expanding rural towns and villages must… avoid urbanisation of highly productive farmland and versatile soils where possible, and maintain adequate separation between incompatible land uses (Directive 9.5)	**Yes (proposed):** rural subdivision policies 29 and 35 of Proposed Auckland Unitary Plan
Future Proof	Take into account the loss of highly versatile land in determining the location and form of future urban development in the Future Proof sub-region to minimise the loss of highly productive land when amending the RPS and district plans to anchor the Future Proof Strategy (2009, p. 71).	**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
SmartGrowth	Continue to regulate for minimum lot sizes that will enable productive use of versatile soils for primary production, and monitor effectiveness of regulation (2007, p. 94)	**Yes:** Policy UG 19B, objective 26 of the Bay of Plenty Regional Policy Statement
Greater Christchurch	Versatile soils should be protected where practical (2007, p. 26).	**Yes:** Policy 5.3.2 of the Canterbury Regional Policy Statement Policy B.1.1.8 of the Selwyn District Plan

Source: Auckland Council, 2012a & 2013c; Bay of Plenty Regional Council, 2014; Environment Canterbury, 2013; Future Proof, 2009; GCUDS, 2007; Selwyn District Council, 2008; SmartGrowth, 2007; Waikato Regional Council, 2013; Waikato District Council, 2013; Whangarei District Council, 2007 & 2010.

F3.7 A number of local authorities have goals in their spatial and 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" (ibid).

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 (p. 128).

F3.8 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 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 3.6).

Table 3.6 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" (ibid).

F3.9 The expansion of cities is not the largest threat to 'elite' or 'high-class' productive land.

Lifestyle blocks are clearly valued by many New Zealanders, and represent a valid housing choice. The findings of Andrew and Dymond 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 reverse sensitivity, by creating an effective 'buffer' between housing and agricultural activities. But they also seem likely to unnecessarily tie up large areas of land. For example, about 112,000 hectares of land within the Auckland Council region is currently recorded on the District Valuation Roll as being used for lifestyle purposes[23]. This area of land is larger than the former Auckland City Council.[24] As a result, large rural lot size requirements may not result in the efficient use of land for housing.

F3.10 Zoning practices that require large minimum lot sizes in rural areas may not be the best way of protecting life-supporting soils and are unlikely to encourage the most efficient use of land for housing.

R3.3 High-growth territorial authorities should review their zoning rules for rural land, to ensure they provide the right balance of promoting efficient use of land for housing and minimising reverse sensitivity risks.

Finally, it is worth recalling that land, like any other resource, will tend to migrate 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, the Commission heard from its engagement meetings in the Western Bay of Plenty that a barrier to further residential development in some parts of the region was high kiwifruit prices, which were increasing the value of agricultural land. 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)

F3.11 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. 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). As was discussed in Chapter 2, 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. Productivity Commission research found that land within the old Auckland Metropolitan

[23] Defined as being "generally in a rural area, where the predominant use is for a residence and, if vacant, there is a right to build a dwelling. The land can be of variable size but must be larger than an ordinary residential allotment. The principal use of the land is non-economic in the traditional farming sense, and the value exceeds the value of comparable farmland" (Land Information New Zealand, 2010, p. 6).

[24] Auckland City Council was disestablished as the result of the creation of Auckland Council. However, in the 2006 Census, about 400 000 people lived in Auckland City.

Urban Limit (zoned for residential use) was over eight times more expensive than land outside the Limit, indicating unmet demand for residential land. (NZPC, 2012, p. 116).

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 and policies which 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 end, and improve overall welfare. Large land price differentials between different types of zones should be a trigger for local authorities to review the adequacy of their land supplies and zoning decisions.

R3.4 Large land price differentials between different types of zones, such as those observed in Auckland, should be a trigger for local authorities to review the adequacy of their land supplies and zoning decisions.

3.5 Options for closer integration

Although a number of parties identified the existing spatial planning processes as a leading practice in promoting integrated land use planning and decisions, it was also clear that creating spatial plans did not resolve the fundamental tensions and problems in the legislative framework. If anything, spatial plans can be seen as a 'workaround'. Local authorities still needed to translate spatial plans into the different statutory plans (eg, District Plans, LTPs and RLTPs). A number of submitters expressed particular frustration at the statutory consultation requirements involved in translating spatial plans into RMA regulatory documents (Box 3.4).

Box 3.4 Problems translating spatial plans into regulatory documents

Greater Wellington Regional Council

> Spatial plans are implemented through a variety of delivery mechanisms, including RMA plans/policy. As the law stands, even though a spatial plan goes through considerable consultation with the community, the RMA requires a separate consultation process to embed it into a statutory plan developed under the RMA, and includes possible appeal to the Environment Court. (sub. 38, p. 3)

Selwyn District Council

> Even though a spatial plan goes through considerable consultation with the community, the RMA requires a separate consultation process to embed it into a statutory plan developed under the RMA. This entails additional process and in addition is subject to appeal to the Environment Court. There is no explicit weighting in law to be given to a plan in the development of the subordinate RMA plan. (sub. 45, p. 14)

Western Bay of Plenty District Council

> Spatial plans (in our case SmartGrowth), Regional Policy Statements and District Plans are hierarchical in nature, with objectives and policies in each being reflected in each subsequent level. Despite the fact that each goes through a rigorous consultative process, every objective and policy is subject to re-litigation in each plan or policy document. An option to overcome this is that objectives and policies already adopted should be able to be incorporated in lower level plans without the need for further consultation and not be subject to further challenge as they have already been through that scrutiny. (sub. 36, p. 4)

Future Proof

> The Future Proof Strategy was prepared under the Local Government Act 2002, through a consultative process whereby the community had the opportunity to provide feedback. The Strategy was then implemented through numerous statutory documents including the Waikato Regional Policy Statement, Waikato Regional Land Transport Plan, New Zealand Transport Authority's programmes and strategies, partner council's district plans, policies and bylaws, long

> term council community plans, and tāngata whenua plans and strategies. Future Proof successfully integrated the Strategy into these statutory documents, but this required significant effort (time and resources), in particular, delaying the outcomes of the Strategy. Although the Strategy went through considerable consultation with the community, the RMA required a separate consultation process to embed it into statutory documents. (sub. 39, p. 6)

Local Government New Zealand

> A spatial plan is implemented through a variety of delivery mechanisms, including an RMA plan/policy. As the law stands, even though a spatial plan goes through considerable consultation with the community, the RMA requires a separate consultation process to embed it into a statutory plan developed under the RMA. This entails additional process and, in addition, is subject to appeal to the Environment Court. (sub. 54, p. 6)

New Zealand Transport Agency

> …there can be significant effort, cost and churn involved in translating non-statutory growth strategies into the statutory 'implementation' documents prepared under the Local Government Act (Long Term Plans, Annual Plans), Resource Management Act (Regional Policy Statements, Regional and District Plans) and Land Transport Management Act (Regional Land Transport Plans). (sub. 73, p. 8)

Hamilton City Council

> An important aspect of planning for future housing supply needs in Hamilton has occurred through the Future Proof strategy and the Hamilton Urban Growth Strategy. The development of these strategies occurred under the Local Government Act 2002 special consultative procedures. However, in order to embed these into RMA documents to give the strategies sufficient statutory weight, further processes such as a Regional Policy statement Review, district plan changes/variations and reviews, have been undertaken. These have taken around 5 years in total to date and some of the processes are still not complete. (sub. 70, p. 14)

F3.12 Duplicative statutory consultation requirements make it time-consuming and costly for local authorities to translate spatial plans into RMA regulatory plans.

Many of these submitters argued that, since the spatial plans had already gone through LGA-based consultative processes, a streamlined mechanism for amendments to RMA plans should exist that reflects the goals of a spatial plan. For example, Future Proof supported processes where spatial plans are:

- embedded into statutory documents in a streamlined process (adopted faster) without the duplication of planning processes; or
- given legal status under the RMA (sub. 39, p. 6).

Local Government New Zealand (LGNZ) similarly recommended that "greater status" is needed for "a plan/strategy prepared under the LGA to a plan/policy under the RMA" (sub. 54, p. 6).

The Commission considered these two options, but concluded that they either were unlikely to speed up the process of translating spatial plans into regulatory documents or presented significant risks.

Strengthening recognition of other plans in the RMA

LGNZ noted in its submission that the

> weighting in law which is given to a plan prepared under another statute is relatively light. S.66(2) and 74(2) of the RMA requires a local authority to "have regards to "a management plan/strategy plan prepared under another statute when preparing a regional plan/district plan. And a decision on a resource consent can take a spatial plan into account as an "other matter" under s.104(1)(c). (sub. 54, p. 6)

One approach would be to amend the RMA, so that each District Plan, Regional Plan and RPS was required to "give effect to" spatial plans prepared under the LGA.

While this would give greater weight to spatial plans in law, in practice it would be unlikely to significantly speed up the process of translation. Local authorities would still face statutory obligations to:

- prepare an evaluation report assessing whether the proposed objectives are most appropriate way to give effect to the purposes of the RMA, and whether the proposed action is the most appropriate way of achieving the objective (section 32 of the RMA); and
- consult with the public on proposed plan changes (Schedule 1 of the RMA).

F3.13 Strengthening the recognition in the RMA of plans prepared under other statutes would be unlikely to significant speed up the translation of spatial plans into District Plans.

Removing or relaxing RMA analytical or consultation obligations

The second option would be to remove or relax the obligations in the RMA to prepare evaluation reports or consult with the public on proposed changes to regulatory plans. Many of the submitters cited in Box 3.4 argued that the RMA obligations were unnecessary, as the processes of developing the spatial plans had already involved public consultation.

Removing or significantly relaxing RMA consultation and analytical obligations would speed up the translation of spatial plans into regulatory documents. However, it would also create potentially significant risks.

The first issue is that people affected by the regulatory effects of a spatial plan may not have participated in the original consultation on that plan. As Tauranga City Council note, 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). Alternatively, even if people had participated in consultation on the strategic spatial plan, the direct regulatory implications of that plan may not have been clear. Fast-tracked translation of spatial plan objectives into RMA plans could lead to regulation being introduced without those affected being able to understand its impacts or respond. This would run counter to the consultation principles identified in the Commission's *Regulatory institutions and practices* report (NZPC, 2014, pp. 144–45).

The second risk is that allowing for fast-tracked translation of spatial plan objectives into RMA plans may allow new regulation to be introduced without an appropriate level of analysis. Both the LGA (under which most spatial plans in New Zealand are developed) and the RMA require local authorities to consider a range of options and their costs and benefits, but the RMA is more prescriptive in its obligations. Decision makers following the LGA decision-making provisions may well ask similar questions and make similar assessments as they would under the RMA, but need not do so. This prescription may reflect the fact that provisions in RMA plans (unlike LGA documents) can have regulatory force, and therefore need to be designed with particular care. Further, the obligations on local authorities to conduct robust analysis before introducing new rules or provisions into RMA plans have recently been strengthened (Box 3.5).

Box 3.5 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.

More broadly, the Commission has identified inadequate underpinning analysis as a source of unnecessary and unduly costly land-use regulation (Chapter 5). Removing the section 32 requirements for spatial plan changes would not support the objective of more efficient, better-targeted regulation.

Finally, previous experience in preparing regulatory plan changes that give effect to spatial plans suggests that the RMA statutory process requirements can lead to outcomes that better reflect community needs. In the case of Proposed Change 1, which sought to introduce the Greater Christchurch Urban Development Strategy into the Canterbury Regional Policy Statement, the process of seeking submissions and hearings led Commissioners to include additional greenfield land within the proposed urban limit "to meet the community's need to be able to choose from a range of living locations" (Environment Canterbury, 2010, p. 2).

F3.14 Removing or relaxing RMA consultation and analytical requirements to enable faster translation of spatial plans into District Plans would increase the risk of poor-quality regulation.

Creating the option of a new statutory plan

The third option would be to create a new planning avenue that combined elements of the three main planning Acts and gave statutory support for strategic thinking about the growth of cities. Given the differing purposes of the three Acts and the problems of multiple regulatory objectives (discussed in Chapter 5), this would most likely require separate legislation with a single purpose (eg, "to provide for the effective, efficient and sustainable development of cities and urban environments"). Plans could be constructed in a number of ways, but one logical combination would include:

- 30-year infrastructure strategies (as currently required by the LGA);
- longer-term transport planning;
- longer-term thinking about the growth of the city and its implications for land use, services and the environment; and
- the development of associated land-use rules (as currently occurs through the RMA).

Existing processes such as LTPs and Annual Plans would remain separate, as they focus more on service delivery and need to remain flexible and responsive to changing community and council priorities. However, these processes would be informed by the new spatial plans.

F3.15 The best opportunity to integrate spatial planning and land-use regulation is to create a new, legislative avenue for larger cities. Such an avenue would allow a local authority to develop a plan that combined:

- 30-year infrastructure strategies;
- longer-term transport planning;
- longer-term thinking about the growth of the city; and
- the development of associated land-use rules.

To be most effective, the new planning avenue would need:

- to be focused on the key activities that matter for the growth and development of cities;
- to be a voluntary option for larger cities or fast-growing areas;
- greater central government involvement; and
- processes to encourage high-quality regulatory design.

A tighter focus

As discussed above, the current New Zealand spatial plans vary in the range of topics they cover and the number of targets and objectives they pursue. Cities will naturally differ in the types and breadth of goals they wish to achieve, but large numbers of objectives are likely to impede the development of efficient regulation, as the Commission concluded in its *Regulatory institutions and practices* report (NZPC, 2014, pp. 199–200).

The main advantage of spatial plans is the ability to consider the longer-term implications of population change and economic growth on a particular area, and the use of its space. Yet a number of current New Zealand spatial plans include goals or targets that have no strong relation to the demand for land or space.

F3.16 Large numbers of objectives in spatial plans, and goals that have no strong relation to the use of or demand for land, are likely to complicate the implementation of these plans and the development of efficient regulation.

Spatial plans are more likely to be effective when they concentrate on activities that:

- are of high importance to the functioning of cities and the provision of development capacity for housing (eg, land supply, infrastructure provision, transport services);
- relate closely to the use of land or space and the management of negative externalities; and
- are most efficiently dealt with at a local level and through local authorities.

All of the spatial plans the Commission examined had multiple objectives, with varying degrees of relation to the use of land and local authorities' fields of direct influence. For example, while reducing greenhouse gas emissions from transport is clearly desirable, this goal is better achieved through national policies (such as the Emissions Trading Scheme) that directly target emissions rather than through a series of regionally specific land-use rules with indirect effects that are hard to predict. Similarly, vaccination rates and foreign language fluency rates are most amenable to action by central government agencies and have no strong relationship to the use of or demand for land.

R3.5 A new legislative avenue should be designed to focus spatial plans on activities that:

- are of high importance to the functioning of cities and the provision of development capacity for housing (eg, land supply, infrastructure provision, transport services);
- relate closely to the use of land or space and the management of negative externalities; and
- are most efficiently dealt with at a local level and through local authorities.

A voluntary option

Spatial plans work best for larger cities and, as noted above, a number of rural councils reported facing fewer difficulties in making the three Acts of the current planning and development system work together. As noted in the Commission's *Towards better local regulation* report, a number of rural councils face challenges in attracting and retaining capability. About a third of rural councils are forecast to face declining populations in their areas over the coming decades (NZPC, 2013, p. 5). To avoid imposing unnecessary processes and costs on smaller regions or rural councils, the planning avenue would need to be optional. This would allow other local authorities to continue to use the existing legislative frameworks if they preferred.

R3.6 The new planning avenue should be voluntary to allow local authorities to choose the statutory planning mechanisms that best suit their circumstances.

Wider central government involvement

The timely and adequate provision of social services (such as education and health) matters for the growth of cities, especially as new suburbs emerge and the intensification of developed areas puts pressure on existing facilities. Throughout this inquiry, the Commission heard concerns expressed by local authorities and developers about the speed and effectiveness with which social service provision kept pace with population growth in urban areas.

New Zealand has one of the most centralised structures of government in the developed world. In 2010, spending by New Zealand local governments as a proportion of all public expenditure was the third lowest in the Organisation for Economic Co-operation and Development (OECD), and the second lowest as a proportion of Gross Domestic Product (GDP) (Junghun & Vammalle, 2012, p. 90). And unlike comparative governments in a number of other OECD countries, local authorities in New Zealand play little to no role in providing educational and health services (ibid, p. 94). Central government therefore has a key role to play in supporting the growth of cities.

Yet central government currently plays a very small part in New Zealand's spatial plans. The main central government actor in current New Zealand spatial plans is the NZTA, whose primary objective is to promote transport outcomes, not housing or other urban objectives. In comparison, many Australian metropolitan plans have a wider range of goals and objectives, because State governments (which play many of the roles that central government does in New Zealand) are active participants. For example, the 2014 *Plan for Growing Sydney* includes actions aimed at ensuring that suitable sites for schools, tertiary education institutions and health providers are identified and planned for appropriately (New South Wales Government, 2014, pp. 54–55). Similar goals exist in *Plan Melbourne,* with specific tasks allocated to State government agencies (State of Victoria, 2014, pp. 123–25). Some of New Zealand's spatial plans do have objectives focused on education and health services. However, as central government is not involved in setting or agreeing to them, the goals are largely aspirational (eg, GCUDS, 2010, p. 268; Future Proof, 2009, pp. 126–27).

If the new planning avenue is to better deliver the full range of infrastructure needed for fast-growing urban areas, a wider range of central government actors (such as the health, education and justice ministries) should be involved in developing future spatial plans. Precedents exist of such joint long-term planning by

local and central government agencies. For example, over 2006–2007, a joint local-central government working group prepared shared advice on a strategy for developing Auckland's land transport system for the next 20–30 years. This advice was designed to inform funding decisions by both layers of government (Auckland Transport Strategic Alignment Project Steering Group, 2007).

Given the potential fiscal implications of greater central government involvement in spatial planning (discussed below), future spatial plans would most likely require joint approval of the Cabinet and relevant local authority.

F3.17 The timely and adequate provision of social services (such as education and health) matters for the growth of cities. Central government is responsible for planning for and funding these services. However, it has played a limited role in developing New Zealand's current spatial plans.

R3.7 Future plans prepared under the new legislative avenue should be developed in partnership with the full set of central government actors whose services matter for the functioning of cities. Given the fiscal implications of greater central government involvement in spatial planning, both Cabinet and the relevant local authority should approve such plans.

Greater central government involvement in spatial planning will have implications for the government's financial planning. Cities require long-term planning horizons, as is reflected in the 10-year timeframes of LTPs and the recently introduced requirement for local authorities to prepare 30-year infrastructure strategies. However, the government's budget cycles work on shorter timeframes. For example, the Government Policy Statement on Land Transport Funding (which sets the transport activities to be funded and the maximum and minimum amounts of funding available for each activity) must be renewed every three years.

Uncertainty around future funding allocations from central government can have large financial impacts on the budgets of local authorities and the provision of infrastructure. Auckland Council's 2012-22 Long-Term Plan forecasts expected NZTA subsidies over the 10 years and notes that

> [a] 1% change in this subsidy would equate to $26 million in capital subsidies, and $22 million in operating subsidies. If the level of subsidy decreases transport infrastructure projects may be reprioritised, or the scope reduced. Alternatively they may be funded through a different source such as increased borrowing or rates. (Auckland Council, 2012b, Vol. 3, p. 90)

Two possible options to manage the tension between the two planning timeframes are noted below.

- The development of detailed 10-year infrastructure strategies for the education and health sectors would allow central government to signal to local authorities and developers where and when to contract for or construct new facilities. The government has already begun to move in this direction by developing a 10-year Capital Intentions Plan "to match the planning frameworks required of local government" (National Infrastructure Unit, 2011, p. 19).
- Separate, negotiated 10-year funding packages for city transport plans. The Crown could fund these packages and recoup the funding from later National Land Transport Fund receipts or from Budget operating allowances. Recent improvements to Auckland's transport network have been funded both from the NLTF and from Crown grants and loans.

F3.18 One significant challenge in moving to an integrated planning avenue for larger urban centres is reconciling a city's longer-term development and infrastructure needs with much shorter central government planning and fiscal cycles.

Q3.2 How could the longer-term development and infrastructure needs of cities better align with central government's fiscal cycle?

Q3.3 Are there other functions and activities that should be included in a new legislative planning avenue for cities?

Processes to promote good regulatory analysis and design

Finally, any new legislative avenue would need to retain processes to encourage robust regulatory analysis, similar to section 32 in the current RMA. As discussed above, consultation with the community on strategic directions is a necessary, but not sufficient, condition for developing efficient and effective land-use regulation.

R3.8 The new legislative planning avenue should include processes to encourage robust regulatory analysis and development, as section 32 of the Resource Management Act is designed to do.

As joint partners in future spatial plans, central government could bring its regulatory expertise and capability to bear on their development, especially on proposed land-use regulations. Options include:

- peer review by the Treasury's Regulatory Impact Analysis unit; or
- the establishment of an Independent Hearings Panel to assess proposals and provide recommendations (such panels have been used for the Proposed Auckland Unitary Plan and Christchurch Replacement District Plan).

Sufficiently robust processes could permit the removal or restriction of merits appeals on the final spatial plans (the issue of appeals on RMA plans is considered further in Chapter 4).

F3.19 Central government could bring its regulatory expertise and capability to bear so as to properly test proposals for new land-use rules and regulations in future spatial plans. Possible options include peer review by the Treasury or the establishment of an Independent Hearings Panel.

Q3.4 What processes or mechanisms should be used to ensure that proposals for new land-use regulation in future spatial plan are subject to rigorous and independent scrutiny?

3.6 Conclusion

Integrating decisions around land use, infrastructure provision and transport is one of the biggest challenges facing urban planning systems. In New Zealand, local authorities have attempted to overcome gaps in the legislative planning frameworks by developing spatial plans. These plans lay out the expected pattern of growth in a city or region over the future, and plan for the associated release of land and provision of infrastructure. Spatial plans have a range of potential benefits, but they are likely to be most effective where they are tightly-targeted and recognise the economics of development. Current legislative provisions make it difficult to quickly translate the spatial plans into RMA regulatory plans. Resolving this issue is likely to require a new legislative avenue for larger and faster-growing cities.

4 Supplying and releasing land

Key points

- Many New Zealand urban local authorities have goals for the supply of land to meet future residential growth, although the form and strength of these supply goals varies between councils. Only Auckland Council and the western Bay of Plenty's SmartGrowth partnership have quantified land supply targets.
- The readiness of land matters for the efficiency of the housing supply chain. Land that is both zoned and serviced with infrastructure will put the most competitive pressure on land and house prices, as it is more readily available for home construction. Auckland and Hamilton City have supply targets explicitly based on zoned and serviced land.
- Greater monitoring of dwelling completions and net changes in the dwelling stock would better enable local authorities to assess whether housing shortfalls were building up, and could help trigger reviews of planning controls.
- Covenants restrict the capacity of land to carry dwellings when new subdivisions are created. Covenants impose more restrictive land use rules than are provided for in District Plans, and they prevent neighbourhoods continuing to develop more dwelling capacity as they age. Subdivision covenants are increasingly common, and include ever more detailed restrictions on land use.
- Central government and local government 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 has recently announced a tender to use 430 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. Scope might exist to use public land holdings in other high-growth cities to help offset the nationwide shortfall of lower-priced housing.
- 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. Consultation obligations and appeals contribute to these longer timeframes.
- Local authorities should be given more flexibility to only notify directly affected parties of rezoning proposals that are specific to a particular site.
- Leading practices include engagement with affected parties on proposed plan changes ahead of their notification, and circulation of draft plan changes for comment. This may help reduce the incidence of appeals.
- Reforms to appeal provisions require careful trade-offs between the goals of speeding up rezoning processes and ensuring that they deliver quality outcomes. The Commission is interested in receiving evidence on whether greater use of independent commissioners in planning decisions would provide the level of rigour required to justify further restrictions on appeals.

4.1 Introduction

The Commission found in its *Housing affordability* inquiry report that an adequate supply of land (including greenfield, brownfield and provision for greater density) matters for housing affordability (NZPC, 2012, p. 113). Mechanisms to ensure that cities have a sufficient supply of land available to meet

expected population growth, and encourage the prompt use of that land, also feature prominently in planning and development policy overseas.

This chapter identifies some key strategies for, and barriers to, the adequate supply of land and development capacity, and considers how these are used in New Zealand. In particular, it looks at:

- supply targets;
- covenants;
- releasing and using public land for housing; and
- processes for rezoning land for residential use.

4.2 Supply targets

Planning systems in a number of jurisdictions include incentives or obligations on local authorities to make provision for sufficient supplies of land or development capacity to meet future needs. These incentives or obligations often take the form of supply targets or goals, which local authorities must seek to achieve through their planning decisions. Such targets can serve a range of purposes, but are generally intended to avoid shortfalls in land or development capacity emerging and putting upwards pressure on land and house prices.

The goals are frequently set to meet a certain quantum of forecast future population growth, and often target large amounts of supply (eg, 15–30 years) to provide a buffer against unforeseen growth and to reflect the time required to rezone and prepare land for residential uses. In England, revisions to the National Planning Policy Framework require local authorities to

> - identify and update annually a supply of specific deliverable sites sufficient to provide five years worth of housing against their housing requirements with an additional buffer of 5% (moved forward from later in the plan period) to ensure choice and competition in the market for land. Where there has been a record of persistent under delivery of housing, local planning authorities should increase the buffer to 20% (moved forward from later in the plan period) to provide a realistic prospect of achieving the planned supply and to ensure choice and competition in the market for land
> - identify a supply of specific, developable sites for broad locations for growth, for years 6-10 and, where possible, for years 11-15 (DCLG, 2012, p. 11).[25]

A number of Australian state governments set land supply targets for their major cities:

- The *30 Year Plan for Greater Adelaide* includes a policy to provide "sufficient other new growth areas for a 25-year rolling supply of land, of which 15 years is zoned for urban development" (DPLG, 2010, p. 82).
- The Western Australian government's strategic plan for the metropolitan Perth and Peel region (*Directions 2031*) introduced an "urban expansion management program to ensure an adequate supply of land that is suitable for urban development to meet medium to long-term residential needs". This programme seeks to achieve "an ongoing 25-year supply of undeveloped land composed of a minimum 15-year land bank of urban and urban deferred zoned land; and, a 10-year buffer of rural land identified for future urban expansion or investigation" (WAPC, 2010, p. 5).

In 2013, the government released a package of proposed reforms to the Resource Management Act 1991 (RMA), which included amending the Act to "require councils to ensure there is adequate land supply to provide for at least 10 years of projected growth in demand for residential land in their plans" (MfE, 2013b, p. 44).

[25] To qualify as 'deliverable land', "sites should be available now, offer a suitable location for development now, and be achievable with a realistic prospect that housing will be delivered on the site within five years and in particular that development of the site is viable" (DCLG, 2012, p. 11). To be considered 'developable land', "sites should be in a suitable location for housing development and there should be a reasonable prospect that the site is available and could be viably developed at the point envisaged" (ibid).

What provision do New Zealand local authorities make for future supply?

A number of local authorities have taken steps to monitor land use and set goals of ensuring adequate forward land supplies. However, the form and strength of the supply goal varies between councils. The current Proposed Auckland Unitary Plan (PAUP) includes the following objective:

> Maintain sufficient unconstrained residential and business land within the RUB [Rural Urban Boundary] to accommodate an average of seven years land supply at any one time. (Auckland Council, 2013c)

This policy reflects the Auckland Plan priority of increasing housing supply to meet demand, which includes the following objective:

> The Auckland Council will ensure there is sufficient development capacity or 'ready to go' land for housing. This Plan provides for a staged release of land within the Rural Urban Boundary, with an average of 7 years' unconstrained development capacity at any point in time, with a minimum of 5 years' and a maximum of 10 years' capacity. Unconstrained development is land that has operative zoning and is serviced with bulk infrastructure. (Auckland Council, 2012a, para 610)

Five authorities had less tightly defined policies in their RMA plans (Table 4.1)

Table 4.1 Land supply objectives/policies in selected RMA plans

RMA Plan	Policy/objective
Hamilton City Operative District Plan	"Establish the supply of appropriately zoned and serviced urban land within the city to meet the current and future demands of the city's population." (4.1.2, policy a)
Queenstown Lakes District Plan	"Provision for residential growth sufficient to meet the District's needs." (4.9.3, objective 3)
Selwyn District Plan	"Ensure that sufficient land is made available in the District Plan to accommodate additional households in the Selwyn District portion of the Greater Christchurch area between 2013 and 2028 through both greenfield growth areas and consolidation within existing townships." (objective B4.3.5)
Whangarei District Plan	"To zone land within urban areas in a manner that meets anticipated future urban growth demands, taking into account: Landscape values; Ecological values; Amenity values; Natural character of the coastal environment, wetlands and lakes, and rivers and their margins; Archaeological and heritage features; Sites of significance to Māori, and other taonga; Infrastructure, and high voltage transmission lines; Productive land fragmentation; Water and soil quality; Cross-boundary conflicts; Identified Mineral Extraction Areas." (policy 6.4.1)
Canterbury Regional Policy Statement	"The urban form and settlement pattern in Greater Christchurch is managed to provide sufficient land for rebuilding and recovery needs and set a foundation for future growth." This will be achieved by encouraging greater intensification within the city and "providing for the development of greenfield priority areas on the periphery of Christchurch's urban area, and surrounding towns at a rate and in locations that meet anticipated demand and enables the efficient provision and use of network infrastructure". (objective 6.2.2)[26]

Source: Hamilton City Council, 2012; QLDC, 2012a; Selwyn District Council, 2008; Whangarei District Council, 2007; Environment Canterbury, 2013.

Some of the remaining territorial authorities have considered the adequacy of land supplies in their planning through non-regulatory means. As part of preparing the Wellington Urban Growth Plan, Wellington City Council carried out assessments of land supply and housing demand, which found that in

- greenfield areas a forward supply of land in excess of 20 years exists
- the central city a supply of development capacity in excess of 20 years exists

[26] The Environment Canterbury and Selwyn District Council objectives were inserted into the RMA plans by the Minister for Canterbury Earthquake Recovery, using powers under the Canterbury Earthquake Recovery Act.

- established suburbs we estimate in the order of 10 years forward supply exists for infill development. (Wellington City Council / the Property Group, 2014, p. 12)

However, neither the Urban Growth Plan nor the Wellington District Plan has quantified supply targets.

The SmartGrowth partnership (made up of Tauranga City Council, Western Bay of Plenty District Council and the Bay of Plenty Regional Council) has recently "adopted the concept of a 10 year consentable land supply as a working tool for the Settlement Pattern Review" (sub. 27, p. 4). Waikato District Council noted that it had rezoned, or was in the process of rezoning, land to meet expected demand from Aucklanders "who may want to take advantage of more affordable housing in the northern Waikato district":

> The Pokeno Structure Plan was made operative in 2010 and provides for an additional 2000 houses in Pokeno by 2030. The Tuakau Structure Plan is expected to be adopted by Council by the end of 2014 and provides for an additional 224ha of residential zoned land for staged housing development to cater for an additional 5000 people by 2045. Land to cater for an additional 2000 people will also be deferred zoned and can be released for development ahead of 2045 should the need arise. (Waikato District Council, sub. 12, pp. 3–4)

F4.1 Many urban local authorities have goals for the supply of land to meet future residential growth, although the form and strength of the supply goals vary between councils.

What matters for supply targets?

Like other forms of performance indicators, land supply targets are most likely to be effective where they:

- involve quantified measures and regular reporting; and
- target inputs or outputs of the highest importance to the desired outcome (in this case, the production of housing).

Quantification and reporting

Only Auckland Council and the SmartGrowth partnership had quantified land supply targets. The absence of quantified measures for the other local authorities makes it harder for external parties to assess their performance. Similarly, very few local authorities reported regularly on their land supply performance. The only detailed reporting the Commission was able to identify was from the SmartGrowth partnership, which provided detailed information on the uptake of different types of land relative to projections, and available remaining supplies (SmartGrowth, 2013b).

F4.2 Only Auckland Council and the SmartGrowth partnership have quantified land supply targets.

F4.3 Local authorities provide only limited public reporting on their performance against their land supply targets.

Targeting the right inputs or outputs

The local authorities also vary in terms of the *types* of supply sought. For example, Auckland Council and Hamilton City Council seek zoned and serviced land, while Whangarei City Council and the SmartGrowth partnership have goals for zoned land. The readiness of land matters for the speed of the supply chain for delivering housing (Figure 4.1).

Figure 4.1 Impact of different levels of land readiness on the housing supply chain

Providing large amounts of land that is raw or un-zoned may provide little competitive pressure on prices, because of the time it can take to rezone land for residential purposes. Tauranga City Council observed that in their experience

> 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. (sub. 47, p. 4)

Zoned land is likely to provide more pressure, but this will depend in large part on whether the zoned land is in areas where there is (or is likely to be) demand. This point was discussed in the Selwyn District Plan:

> Under previous legislation Councils had an explicit role to direct and control the growth of the townships. Common practice was to predict the amount of land likely to be needed for new residential or business growth for the next 10 to 18 years and to zone land to meet that demand. This approach had both advantages and disadvantages. The main advantage was the certainty it provided for the community and for agencies supplying utilities, facilities and services. The main disadvantages were:
>
> - The areas zoned were not always areas people wanted to live in, which created surpluses and shortages of appropriately zoned land in different places.
> - Those landowners who had land zoned were given considerable economic advantage over those landowners who did not. Often there was little difference in the suitability of the sites. (Selwyn District Council, 2008, B4, p. 29)

In addition, as was discussed in Chapter 3, land that is zoned may not actually be economically viable for development. Analysis conducted for the Property Council concluded that only 25% of the 'theoretical capacity' for new dwellings provided by the provisions of the PAUP and Special Housing Areas would actually be viable (Urban Economics, 2014). Evidence provided on behalf of the Property Council to the Independent Hearings Panel (IHP) noted that determining

> whether capacity exists is a complex task and requires the consideration of many factors…[including] property size; property dimensions; property contour; location of existing buildings; natural features (trees, waterways); access to rear lots; planning rules/zones; market demand for proposed dwelling type by locality; land value; capital improvement value; access to wastewater, sewerage, water; utility connections (phone, internet); infrastructure capacity; demolition / relocation costs; ground clearance; earthworks; constructions costs; professional fees; council fees and contributions; finance and holding costs; real estate agent fees; rates; insurance; legal costs; profit; taxes. For the development of an individual site to be commercially feasible all of these factors must be considered. The overall capacity for a city is therefore the sum of all the properties that have commercial feasibility. (Annex 5 to sub. 33, pp. 8–9)

By comparison, land that is zoned and serviced can be developed more quickly, and so is likely to provide more competitive pressure. In this respect, the Auckland Council and Hamilton City Council targets are closest to leading practice. However, as is discussed in Chapter 7, considerations about the supply of infrastructure need to be factored into decisions about the supply of zoned and serviced land.

F4.4 The readiness of land is important for the efficiency of the housing supply chain. Large amounts of un-zoned land may put little competitive pressure on land and house prices, because of the time it takes to rezone land for residential use. Zoned and serviced land will provide more pressure, as this types of land can be developed more quickly.

R4.1 High-growth local authorities should express their land supply targets in terms of zoned and serviced land and report publicly on their performance.

The need for a wider set of measures

Land supply targets – even those based on zoned and serviced land – are a necessary but insufficient condition for the adequate production of housing. A range of other factors – such as access to finance, construction costs, demand levels, and the restrictiveness of zoning and District Plan provisions – may limit the supply of dwellings. NZTA in its submission commented that

> because land has been zoned or has infrastructure provided does not mean that it will be quickly supplied to the market. There is also anecdotal evidence which would suggest there are failures with the market which prevent housing coming to the market as follows:
>
> - land banking is an issue where developers may drip-feed zoned land on to the market to maximise the value of new sections
> - some Special Housing Areas (SHAs), once gazetted, are being on-sold based on the value add of being an SHA….
> - relationships between multiple landowners may mean that development is held up by disputes on financing, sequencing of development or infrastructure provision. (sub. 73, p. 7)

Clearly, many of these other factors are outside the direct control of councils. However, the insufficiency of land supply targets on their own as a means of preventing housing deficits from building up suggests that other targets or monitoring systems are needed.

One approach commonly taken by councils is to monitor the performance of their planning and consenting units, in terms of their ability to quickly process resource consent applications. These indicators typically focus on timeliness and customer satisfaction. Such indicators are useful for measuring efficiency and highlighting internal performance issues, and should be retained. However, these indicators are likely to have limited impact on the supply of housing. Gurran et al. (2012), in their review of the performance of Australian, English, New Zealand and US planning systems, conclude that

> narrow 'system efficiency' indicators (which focus on, for instance, decision speed and rates of approval), and which are often used as a proxy for planning stance, are generally not reliable predictors of housing market outcomes. (p. 6)

As a result, Gurran et al. argue for "more systematic approaches to data collection and review", which "at minimum…should address dwelling completions (as distinct from land release or dwelling approvals)" (p. 66). This would include net dwelling additions, and the proportion of new homes affordable to different income groups.

Regular monitoring of dwelling completions and net changes in the dwelling stock would better enable local authorities to assess whether housing shortfalls were building up, and whether the type of supply was meeting current or expected demand (relative to population and household growth). It could also act as a trigger for councils to review the suitability of their planning controls, perhaps using tools such as the Urban Feasibility Model described in Chapter 3.

Some New Zealand local authorities already target or monitor the production of dwellings:

- Auckland Council has estimated the existing housing shortfall and set a target in the Auckland Plan to "[s]upply 100,000 new dwellings in the period 2012-22, 170,000 new dwellings in the period 2022-32, and 130,000 new dwellings in the period 2032-42" (Strategic Direction 10). It reports yearly on dwelling consent numbers.
- Tauranga City Council reports yearly on "the growth in new dwellings compared to what was expected according to the most recent SmartGrowth growth projections", and the SmartGrowth partnership reports yearly on development trends in the Western Bay of Plenty region – including dwelling consents,

code of compliance certificates, average section size, resource consents and performance comparisons with growth projections (Tauranga City Council, 2014a, p. 133; SmartGrowth, 2013b).

R4.2 Local authorities should monitor and report on dwelling completions and net changes in the dwelling stock, relative to expected and actual population and household growth.

Greater 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) comparatively poor information exists, or analysis of it undertaken. 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 the Ministry of Business, Innovation and Employment (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.

F4.5 A need exists for better and more regular data on dwelling production, especially housing additions and demolitions. Existing information provided through building consents is of poor quality.

R4.3 The Ministry of Business, Innovation and Employment, Statistics New Zealand and territorial local authorities should work together to improve the quality of official statistics available from the building consent form as a priority.

Public access to information about housing and the housing market is potentially also 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, Local Government Official Information and Meetings Act 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)

Q4.1 Should the public have improved access to property data such as the content of District Valuation Rolls and property sales data?

4.3 Covenants

In 1938, New Zealand's foremost expert in property law, E C Adams, wrote:

> The doctrine of restrictive covenants appears alien to New Zealand conception of rights in property. Any contract tending to restrict the free transfer of land and the full use thereof is distinctly against public opinion in these newly-settled countries. (quoted in Mulholland, 2005, p. 275)

This has changed. Restrictive covenants in new subdivisions (also commonly referred to as *building schemes*) are now 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.

The intention behind subdivision covenants is that, through 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. 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 (mechanisms for extinguishing them are discussed below).

The Commission was told that covenants are increasingly binding landowners about 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 4.1).

Box 4.1 **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 180m^2. 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 1200mm x 1200mm 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 with 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.
- Advertising hoardings or signs are prohibited.
- 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. For example:

- 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 certain dog breeds and animals that are likely to annoy other owners, 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 100m² (pre-built or transportable dwellings require the developer's written approval), requires owners to remove graffiti within five days, and requires them to have no animals, reptiles, poultry or livestock on the property (except for a maximum of three cats or dogs).
- In Pegasus Town, owners must not oppose, object to, frustrate, or take any action, or encourage or cause others to oppose, object to, frustrate or take any action that might in any way prevent or hinder Pegasus Town from progressing. (Dally, 2013)
- 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 185m² or 175m² (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.

In its issue paper, the Commission asked whether private covenants were restricting the development capacity of land for housing. The views of submitters were mixed.

Some submitters considered that covenants did unduly restrict the carrying capacity of land. 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 however 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)

Perhaps unsurprisingly, 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)

Tauranga City Council 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.
- In another instance another developer has withheld access to adjoining land capable of being developed into about 250 houses enabled choosing not to complete a small stage of its subdivision that would have the construction of road access and services to the adjoining property boundary. This situation has existed for over five years. In recent months TCC has been putting pressure on the developer to provide access. Reluctantly the developer has agreed to progress discussions on this matter on the basis that the adjoining landowners pay a significant financial premium to achieve access.
- In yet another example land capable of accommodating over 100 new homes was left without road access by a developer who bought up a number of land parcels but could not come to agreement with a number of other landowners and designed its subdivision such that these other properties could not be developed. TCC has fortuitously been able to progress this matter and we are currently in discussions regarding the purchase of surplus Crown land that would allow access and services to be provided to the land for development purposes. (sub. 47, pp. 25–26)

F4.6 Covenants established in new subdivisions (building schemes) are increasingly common and impose ever more detailed restrictions on purchasers.

Benefits of covenants

Such covenants have a number of advantages. They can:

- allow landowners to agree to be bound by restrictions that provide a higher level of amenity than is provided for in planning regimes;
- deal with matters that are not appropriate for District Plans; and
- be enforced by adjoining landowners directly, rather than requiring action by a Council.

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).

Problems with covenants

Covenants, by their nature, restrict certain uses of land in the future. Mead and Ryan (2012) argued that, over time, restrictive covenants can frustrate other legitimate public policy objectives:

> But it may also be contrary to other public policy imperatives in some circumstances, such as where significant 'up-zoning' is planned or urban consolidation sought. Restrictive covenants may prevent such up-zoning now, and in the future. If the basis for public planning instruments under RMA is to promote the sustainable management of natural and physical resources including for future generations, why should that object potentially be frustrated by privately-imposed restrictive covenants when public planning instruments can override other property rights? (p. 1)

The Victorian Law Reform Commission has noted that

> [t]he proliferation of covenants imposes high transaction costs on burdened owners who wish to negotiate the release or variation of covenants. Where the number of benefited owners is large, the chances of obtaining the formal consent of all are remote. (2011, p. 88)
>
> As static requirements imposed on evolving communities, covenants have the potential to exclude new uses and to lock in the values, lifestyle choices and aesthetic preferences of the original lot owners. This limits the ability of owners to use land in a way that meets their needs. (2011, p. 90)

Covenants 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 neighbourhood (for example, through the construction of infill housing) that would otherwise occur.

They 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.

F4.7 Covenants established in building schemes can reduce the supply of land for housing now and in the future, and increase the cost of constructing dwellings.

Mechanisms to extinguish covenants

Two main mechanisms exist for modifying or extinguishing covenants:

- By agreement: Covenants can be modified or extinguished by the agreement of all landowners who benefit from it.
- By Court Order: Section 317 of the Property Law Act 2007 allows both the District Court and the High Court to modify, or wholly or partially extinguish any easement or covenant upon being satisfied as to one of a number of grounds (McMorland, 2014), including:
  - changes in the nature and extent of use of the land;
  - changes in the character of the neighbourhood;
  - any other change in circumstances since the covenant was made that the Court considers relevant;
  - if the covenant impedes the reasonable use of the land in a different way or to a different extent than could have been reasonably foreseen when it was created; and
  - that every owner, by act or omission, is reasonably considered to have abandoned or waived the covenant.

In large subdivisions, the prospect of getting every landowner to consent to significantly modify or extinguish covenants is so remote that it can be dismissed.

The courts appear to have broad grounds to extinguish or modify them, 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. The Commission has not been able to find good information about how effective these mechanisms are in practice.

Approaches in Australia

In Australia restrictive covenants can be rendered void by local planning schemes in various ways:

- In Western Australia, the Planning Commission "will not approve subdivisions or endorse deposited plans which propose restrictive covenants which limit the number of dwellings, restrict the maximum area occupied by the dwelling, or the future subdivision of the lot in a way that is inconsistent with the provisions of the relevant local planning scheme or applicable state planning policy" (WAPC, 2008, p. 3).
- In Queensland, covenants are not registered on the land title, and so only constrain the original owners. The covenant does not carry with the land, and subsequent owners are not bound by the covenant. In addition, covenants may not restrict the use of energy efficient or sustainable building features (such as light roof colours, or orientation of the building towards the sun) and cannot require a minimum floor area, or a minimum number of bedrooms or bathrooms) (Queensland Government, 2010).
- In New South Wales, planning law allows councils to include provisions in local plans to the effect that a covenant cannot fetter or restrain what council would otherwise approve as a lawful development (Erlingtons, 2011).
- In the Northern Territory, covenants have a maximum duration of 20 years (Victoria Law Reform Commission, 2011, p. 91).

The Commission met with a number of Australian developers, who told the Commission that they commonly established covenants that expired upon completion of the last dwelling in a subdivision. This practice appears far more common in Australia than in New Zealand.

Summing up covenants

Covenants are a type of property right, but in some circumstances there is a public interest in restricting or controlling these rights. Few large subdivisions are now created without building schemes enforced by covenants, and many of the covenants that the Commission reviewed appear to be unduly prescriptive. They have the effect of reducing the supply of land for housing now and in the future.

A number of options could be considered to control covenants:

- Place a time limit on subdivision covenants. This could be a strict limit, or it could require owners to reconfirm that they wish the covenants to continue. In 2010 the Victoria Law Reform Commission recommended a maximum duration for covenants of 20 years, although the government does not appear to have accepted this. In England and Wales, the Law Commission recommended covenants should expire after 80 years, but the government did not accept this. In Massachusetts in the United States, burdens exist for 30 years and can be renewed every 20 years (Scottish Law Commission, 2000).
- Restrict the subject matter of covenants, as in Queensland.
- Provide for councils to void provisions of covenants that are inconsistent with local plan, as in New South Wales.
- Provide easier mechanisms to extinguish covenants. The Scottish Law Commission (2000) has recommended processes that would make it easier to cancel covenants after 100 years, without the consent of all other owners (although their interests need to be taken account of). Another alternative would be to allow owners burdened by a subdivision covenant to extinguish it by majority vote, rather than requiring unanimity.

Q4.2 What are the merits of statutory controls on subdivision covenants, such as time limits, restrictions on the subject matter in them, providing councils with powers to override them, or creating mechanisms to reduce the barriers to extinguishing them without unanimous consent?

4.4 Prioritising the release and use of public sector land

Local and central governments are often owners of significant amounts of land. Governments can use some of this land to increase the supply of housing, by developing it themselves or entering into partnerships with the private sector.

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 that:

  > 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 it 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 km^2 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. 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).

A recent New Zealand example of the re-use of public land for housing is the Hobsonville Point development (Box 4.2).

Box 4.2 Hobsonville Point

Hobsonville Point, on the northwest side of Auckland's Waitemata Harbour, was an active air force base from 1929. After the air force relocated its operations to the nearby Whenuapai base, the Housing New Zealand Corporation (HNZC) purchased 167 hectares at Hobsonville for residential development. HNZC established a subsidiary organisation, the Hobsonville Land Company, to manage the development, which is being run as a collaborative partnership with the private sector. The Hobsonville Point development is a master-planned community that will ultimately provide around 3 000 dwellings (a mix of standalone and terrace houses and apartments), along with community facilities such as schools, parks and public transport.

How much public land is available for housing?

Information about public land holdings across New Zealand cities, and its readiness for residential use, is not readily available. A survey of total public land holdings in Auckland conducted for MBIE found that central and local government agencies hold over 43 000 parcels of land in Auckland, totalling 70,571 hectares (Table 4.2).

Table 4.2 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	3 519	24 393.87
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 large amounts of publicly owned land in Auckland and some land in Wellington is bare, vacant or substantially unimproved and suitable for residential development. (Table 4.3 & Table 4.4). Similarly, Auckland Council's property arm (Auckland Council Property Limited) has 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 4.3 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 4.4 Publicly-owned vacant land in Auckland and Wellington (RV classification)

	Auckland		Wellington	
	Total land area (hectares)	Total land value	Total land area (hectares)	Total land value
Core Crown	20.79	$113.0m	1.76	$8.95m
Local authority	33.12	$105.0m	11.33	$14.70m
Non-core Crown	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. RB is defined by Land Information New Zealand as residential land that is "bare or substantially unimproved…which is likely to be subdivided into dwelling house sites". RV is defined as "vacant or substantially unimproved land on which it is likely a single dwelling house will be built" (Land Information New Zealand, 2010, p. 64).

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 inventory 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 to first offer land back to the original owners before it can be sold on the open market. The public sector currently has processes to meet these 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 a Crown land centre of expertise within Land Information New Zealand to assist agencies with land disposal projects.

F4.8 With the exception of Auckland and Christchurch, there does not seem to have been a stocktake of public land holdings in high-growth cities to identify land that could be released for residential development.

R4.4 The Ministry of Business, Innovation and Employment, in conjunction with relevant local authorities, should inventory public land holdings in all high-growth cities to identify sites that could be used for housing.

The Government has recently sought tenders for the development of housing on 430 hectares of Crown land in Auckland. This is a positive step, and should help meet some of the city's housing shortfall, especially if building can take place at higher densities than in the past. Opportunities may exist to use public land holdings in other cities to help fill the nationwide shortfall of new, lower-priced housing. Some early steps in this direction have also taken place in Christchurch (Chapter 10).

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 the Treasury, or through joint ventures between local and central government. A variant would be to vest surplus public land in urban development authorities. The role of urban development authorities is discussed in Chapter 10.

F4.9 Opportunities may exist to use Crown and local authority land holdings in other cities to help offset the nationwide shortfall of lower-priced housing.

4.5 Rezoning

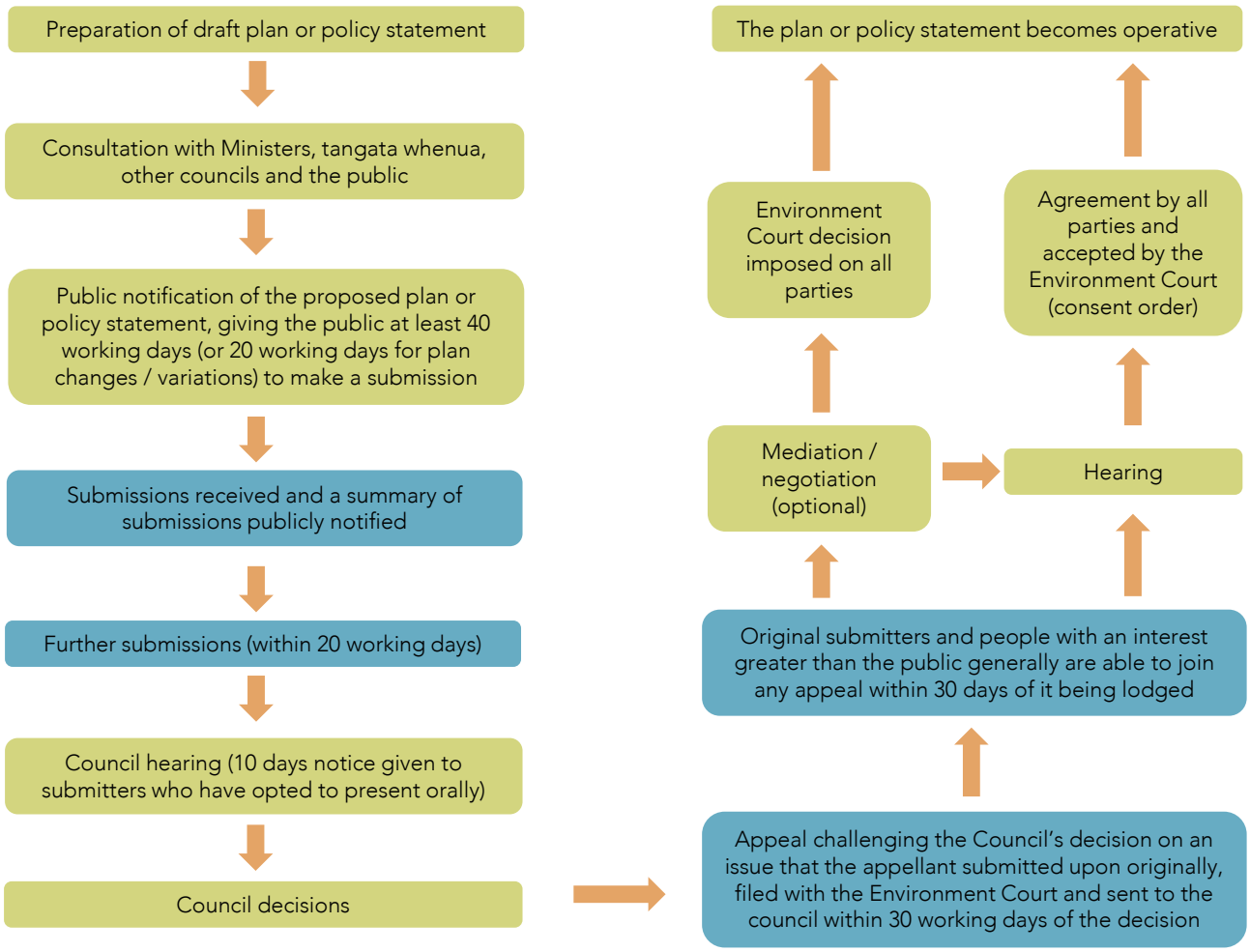
The ability to promptly rezone land plays an important part in increasing land supplies, by bringing new land to market (by converting rural land to urban use) and increasing the development capacity of existing urban land (eg, by increasing height limits or reducing minimum lot sizes). This section 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 RMA plans. Existing RMA plans can be changed either at the instigation of local authorities, or at the request of private individuals and organisations.[27] 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 4.2).

[27] Changes can also be made to proposed RMA plans. These are known as 'plan variations'. This chapter does not deal with plan variations.

Figure 4.2 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.

Note: The darker sections are the focus of the following discussions.

Plan changes requested by private individuals and groups must follow process requirements set down in Part 2 of the RMA's Schedule 1. In brief, local authorities must make a decision on any request for a private Plan change. Councils may accept the request in whole or in part and work with the applicant to prepare a Plan change, adopt the request themselves, or 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 4.2.

Local authorities may only reject a request for a Plan change, where:

- the proposal is frivolous or vexatious;
- the issue had been considered and rejected in the past two years;
- 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 had 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, section 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, section 27).
- Parties to proceedings before the Environment Court may appeal to the High Court on questions of law (section 299).

Comments from submitters

A number of submitters highlighted the long timeframes and associated costs involved in rezoning land:

> 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)

> PC [Plan Change] 19 was publicly notified in late 2007. Prior to public notification a substantial amount of analytical work was undertaken including a 169 page Section 32 report, and numerous technical reports. Following periods of deferment, and hearings, the decision on the plan change was made on 7 October 2009. The decision was subsequently appealed to the Environment Court. Only in December 2014 was the Plan Change made operative. Therefore more than 7 years passed between when PC19 was first notified and when it was made operative. (Queenstown Lakes District Council, sub. 56, p. 5)

The statutory consultation obligations and appeal rights were identified as key causes of delay and cost (these sections are shaded blue in Figure 4.2):

> 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)

> A key driver for this is the long and uncertain timeframes under the RMA 1991 to rezone land from rural to urban land uses. 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)

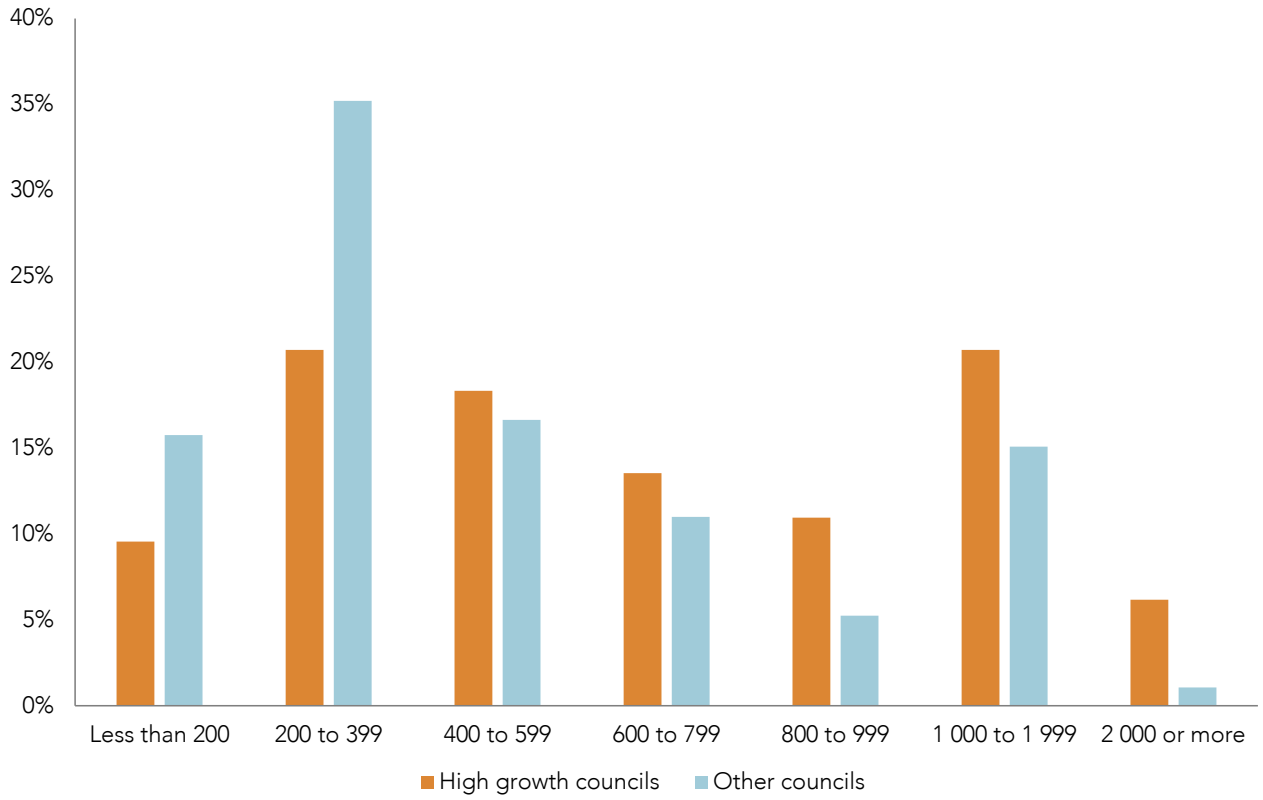
> There are number of reasons for the long period of time that PC19 took to proceed to an operative status. However one key reason is undoubtedly the length of time the Plan change took to work through Environment Court proceedings. (Queenstown Lakes District Council, sub. 56, p. 5)

High-growth councils take longer to make plan changes operative

Data on plan changes is 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 indicates 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 1000 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 less than 400 calendar days to make operative, compared to 31% in high-growth councils (Figure 4.3).

Figure 4.3 Distribution of operative District Plan changes, by calendar days taken to complete and type of territorial authority



Source: Productivity Commission analysis of MfE data.

Note:

1. Analysis undertaken on completed plan changes for which a 'date made operative' was available. Data starts from the point at which a proposed plan change is notified for public submission, and does not include the pre-notification period.

Ministry for the Environment (MfE) research also supports arguments from submitters that consultation and appeals are significant drivers of lengthy timeframes for plan changes. A 2008 analysis of ten Auckland City Council (ACC) and Franklin District Council (FDC) plan changes prepared for MfE found that most changes took at least a year from their notification to a decision. For half of the changes, a year or more had elapsed since the council decision on the proposal. These changes had not yet become operative, because of pending appeals (Table 4.5).

Table 4.5 Summarised timelines for selected Auckland plan changes

	ACC1	ACC2	ACC3	ACC4	ACC5	FDC1	FDC2	FDC3	FDC4	FDC5
Inception to notification	1 yr	1 yr	Same year	5 yrs	1 yr	4 yrs	1 yr	1 yr	1 yr	1 yr
Notification to decision	1.6 yrs	2.3 yrs	1.1 yrs	1.2 yrs	0.6 yrs	2.8 yrs	2.3 yrs	0.1 yrs	0.7 yrs	2.4 yrs
Decision to operative	1.5 yrs+	1 yr+	0.8 yrs+	1.5 yrs+	96 days	2 yrs +	1 yr +	11 days	119 days	98 days

Source: Toh & Bell, 2008.

Note:

1. Red text indicates that plan change was not yet operative at the time the report was completed.

Another 2008 report prepared for MfE found that the statutory consultation stages (notification to hearing date) took up 29% of the average time, and appeal stages (notification of decision to operative data) took up

more than 40% of the average time taken to complete plan changes in the Tauranga City Council, Western Bay of Plenty District Council and Bay of Plenty Regional Council (Table 4.6).

Table 4.6 Average timeframes for completion of selected Bay of Plenty plan changes

Steps	Average time	% of total timeframe
Preparation of plan change up to notification	21.9 weeks	19.7%
Notification until close of submissions	5.8 weeks	5.2%
Close of submissions until notification of summary of submissions	4.5 weeks	4.1%
Notified summary of submissions to close of further submissions	5.2 weeks	4.7%
Close of further submissions until hearing date	15.6 weeks	14.0%
Hearing date until notification of decision	11.7 weeks	10.5%
Notification of decision until Environment Court appeal	29.4 weeks	26.5%
Operative date	17.0 weeks	15.3%
Total timeframe	111.1 weeks	

Source: Gardiner & Stronge, 2008, p. 6.

Appeals and associated court processes (eg, mediation) appear to account for the larger share of very lengthy District Plan changes in the councils that are the focus of this inquiry. More time 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 (Table 4.7). This is the point at which appeals can be triggered.

Table 4.7 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 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 starts from the point at which a proposed plan change is notified for public submission.

F4.10 High-growth councils take longer, on average, than other local authorities to make plan changes operative. Consultation obligations and appeals are significant drivers of longer timeframes for plan changes.

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. 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 found in its 2011 review of planning, zoning and development assessments (Table 4.8).

Table 4.8 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.

However, the benefits that can accrue to the wider community from the growth of cities (see Chapter 2) mean that any barriers to their development must be monitored closely.

Potential reforms to consultation obligations

Submitters proposed two changes to the Schedule 1 consultation obligations:

- restrict the ability to make further submissions on proposed plan changes; and
- allow for flexibility in notifying site-specific plan changes.

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 that the ability to make further submissions be removed or constrained:

> [T]he plan change process in NZ could be improved by… Removing 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, p. 1023). 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.

F4.11 Reforms that limit 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 parties to make further submissions on proposed plan changes than those that are directly affected. 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.

The current scope to make further submissions appears generous. It may be desirable to tighten the rules regarding further submissions.

Q4.3 What impact would further narrowing eligibility to make further submissions have on plan change processes? If eligibility should be narrowed, which parties should be excluded?

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 (HASHA) Act 2013 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.

2009 amendments to the RMA gave local authorities flexibility to consult only "affected persons" over some resource consent applications ("limited notification"). Where a resource consent was limited notified, 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)".[28] 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.

[28] Section 95E, Resource Management Act 1991.

The Commission considers that a case exists for giving local authorities more flexibility over notification and consultation for 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 heard, while opening up opportunities for faster and more efficient rezoning processes. The Commission would be interested in hearing views on how best to define eligibility to be notified and consulted on such proposed plan changes.

F4.12 Giving local authorities 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.

Q4.4 How should eligibility for notification and consultation on site-specific proposed plan changes be defined? Would the definition used in the HASHA Act or the 2009 RMA amendments be preferable?

4.6 The costs and benefits of appeals

The issue of access to merit appeals in the RMA has been the topic of considerable debate for some time, and involves tensions between increasing the speed of rezoning while maintaining incentives for quality regulatory outcomes. This section traverses the arguments for and against merit appeals in the planning system and considers whether alternative arrangements exist that would provide a better balance of quality regulation and responsiveness in the planning system.

Arguments to limit appeals

A number of groups and individuals have argued that appeal rights under the RMA should be removed or constrained. Reasons commonly advanced include the effects of appeals on the speed of rezoning, the impact on the final quality of RMA plan policies, and the use of third-party appeals for discriminatory purposes.

Speed of rezoning

As outlined in the comments from submitters above, Local Government New Zealand (LGNZ) issued a policy position in 2011 that recommended removing recourse to the Environment Court over policy decisions and limiting appeals to matters of law. LGNZ argued that removing merit appeals

> could remove at least a third of the average time currently taken to develop a policy statement or plan and make it operative. This single change will remove the direct time associated with progressing appeals, mediation, preparing and presenting evidence and court decision-making. More importantly, it will profoundly change the incentives, behaviour and engagement of all parties in the council process. (LGNZ, 2011, p. 10)

The Minister for the Environment's Technical Advisory Group (2009) argued that merit appeals on RMA plans should be constrained because of the costs and delays they created, and because the role of courts in reviewing policy decisions made by elected representatives sat uneasily with New Zealand's constitutional system (Technical Advisory Group, 2009, pp. 9–10).

Impacts on the final quality of RMA plan policies

Wellington City Council argued that the ability for people to appeal local authority plan change decisions often led 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)

Removing barriers to intensification, and limiting discrimination

Another argument mounted for more limited appeal avenues is that third-party appeals are often used to stymie development, particularly in wealthier suburbs. Third-party appeals tend to be disproportionately used by affluent social groups (Ellis, 2002) and disproportionately affect multi-unit developments (Kelly, 2011a). A study of resident third-party objections and appeals in the state of Victoria (which has the widest such appeal rights in Australia) found that appeals were being used to target high-density and social housing and that development applications

> in areas of higher relative advantage are more likely to receive objections and more likely to receive larger numbers of objections per application than those in areas of lower relative advantage. Further, of those development applications that receive resident objections, those in areas of higher advantage are significantly more likely to result in an appeal against the local government determination. (Cook et al., 2012, pp. 87–88)

Discriminatory use of third-party appeals has also been reported in Ontario, Canada (Finkler, 2006). The New Zealand Housing Foundation noted that existing residents often try "to preserve their existing environment at the expense of the wider community" (sub. 69, p. 5).

Arguments in favour of appeals

Others have argued or acknowledged that appeals contribute to better quality decision making, by providing useful and wider information. LGNZ, in its submission to the Resource Management Reform Bill, observed that appeals are "invariably characterised by high quality analysis and evaluation of costs and benefit, much of it quantified (by councils and other parties)" (LGNZ, 2013a, p. 9). Nolan et al. (2012b) 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)" (p. 7).

Appeals may also help correct errors and provide incentives for better performance. 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)

Earlier engagement can help

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 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 over 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.

F4.13 Both engagement with affected parties on proposed plan changes ahead of their notification and circulation of draft plan changes for comment are 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.

R4.5 Local authorities should set policies for the publishing of and consulting on draft plan reviews or plan changes of interest to the wider community ahead of notification, unless compelling reasons exist for not doing so.

Do viable alternative arrangements exist?

Although earlier engagement should help reduce the incidence of appeals, it is unlikely to be a panacea. This raises the question of whether limits on appeal avenues would be warranted.

In considering the place of merit reviews in regulatory systems, the Commission found in its *Regulatory institutions and practices* report that access to such appeals should be provided where there is confidence that they "will improve regulatory outcomes and support the objectives of the regulatory regime taking into account the costs and uncertainty that appeal rights create" (NZPC, 2014, p. 286). The problem with considering changes to appeal rights in the planning system is that while the costs of the current system are generally accepted (delays in releasing land, associated economic costs and regulatory uncertainty), the potential benefits (better-quality policy or regulatory outcomes) are contested.

What is clear – and what a number of inquiry participants have acknowledged – is that any further limits to appeal avenues would need to be accompanied by processes that provide rigorous scrutiny of plan change proposals. The introduction of Independent Hearings Panels (IHPs) to consider the PAUP and Christchurch Replacement District Plan (CRDP) are examples of innovative approaches to this issue, which limit appeal avenues in return for independent expert analysis of proposed changes to RMA plans (Box 4.3).

Box 4.3 The Auckland and Christchurch Independent Hearings Panels

The Local Government (Auckland Transitional Provisions) Act 2010 established an IHP for the Proposed Auckland Unitary Plan (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. However, 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 have the benefit of bringing impartial and expert scrutiny to planning proposals, and can encourage the resolution of differences between stakeholders through mediation. In addition, by limiting appeal avenues, the process enables the final RMA plans to be implemented with greater certainty. Yet the processes require significant resources and are time-intensive. 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. Both IHPs are supported by secretariats and the Auckland IHP also has a team of 15 mediators and facilitators.

The two IHPs are at different stages, and neither has provided its 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. Depending on the outcomes of the two IHP processes in Auckland and Christchurch, scope may exist to make IHPs a permanent feature of the planning system, with an accompanying reduction in appeals avenues.

R4.6 The Ministry of Business, Innovation and Employment and the Ministry for the Environment should, once the work of the Auckland and Christchurch Independent Hearings Panels (IHPs) is complete, evaluate the IHP processes, with a view to deciding whether IHPs should become a permanent feature of the planning system.

IHPs will not be the complete solution to providing a better balance between faster rezoning processes and high-quality regulatory outcomes, as the process of reviewing and refreshing District Plans has changed following amendments to the RMA enacted in 2009. Until 2009, local authorities were required by law to review their RMA plans in full every 10 years. In response to concerns about the time taken to make plans operative, the RMA was amended to enable councils to review their plans on a rolling basis, updating them where necessary through plan changes. Full IHPs are unlikely to be an efficient or proportionate mechanism to evaluate an individual plan change.

An alternative, suggested by some inquiry participants, would be to require independent commissioners to chair or make up hearings panels to consider proposals for plan changes and then limit appeals on their decisions (Allison Tindale, sub. 8; Auckland Council, sub. 71). Queenstown Lakes District Council uses independent commissioners for hearings on all notified resource consent applications,[29] and both developers and the Council commented to the Commission that this had led to better outcomes and, as a result, reduced the incidence of appeals.

In its local government regulatory report, the Commission found that, under current law, local authorities may have very limited ability to diverge from the recommendations made by independent commissioners. The Commission also noted that a requirement to use independent commissioners could weaken the accountability of councillors to the community for the decisions made (NZPC, 2013). A counter-argument (explored in more detail in Chapter 9) is that the planning system does not always represent the full range of community interests. In addition, as explored in Chapter 5, considerable room exists to improve the development of land-use regulation. Some form of impartial check could help provide better balance and quality.

One way of balancing local authority ownership of planning decisions with greater rigour and scrutiny would be to replicate the options available under the IHP process. Under this approach, councils would be given the right to reject recommendations from independent commissioners. But if they did so, submitters and applicants would retain the ability to seek a merits appeal. Where councils accepted commissioner recommendations, appeal avenues could be limited to points of law or judicial review.

Q4.5 What has been the experience of using independent commissioners to make planning decisions? Do independent commissioners provide sufficient rigour and impartiality to justify further limits on appeal avenues? Would there be merit in allowing local authorities to reject recommendations from independent commissioners?

[29] Until recently, Queenstown Lakes District Council used independent commissioners for all resource consent applications. It changed this policy to reduce costs and delays for applicants.

4.7 Conclusion

Overseas jurisdictions apply a number of specific processes and techniques to ensure an adequate supply of land for housing. However, few of the key processes identified by the Commission are used to their full potential in New Zealand. Potential exists to make a difference to the supply of land and housing through:

- greater and more rigorous use of land and housing supply targets and monitoring; and
- the identification and release of spare public land for housing purposes.

Scope may also exist to limit covenants so as to reduce constraints on the carrying capacity of land.

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. The benefits to the wider community of the growth in cities mean that these barriers should be monitored and reviewed. Potential exists to remove some of these barriers by giving local authorities more flexibility to only notify directly affected parties over rezoning proposals that are specific to a particular site. Scope may also exist to further limit eligibility to make further submissions on these proposals.

Reforms to appeal avenues require careful trade-offs to be struck between the goals of speeding up rezoning processes and ensuring that they deliver quality outcomes. The Commission is interested in evidence on whether greater use of independent commissioners in planning decisions would provide the level of rigour required to justify further restrictions on appeals.

5 Regulations and approval processes

Key points

- Most land use regulations in New Zealand are made under the Resource Management Act (RMA) through District Plans.
- Specific land use regulations affect the cost and supply of housing. In some cases (especially minimum apartment size and balcony requirements and minimum parking requirements) the costs imposed exceed likely benefits.
- 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.
- The place of housing and urban environments in the RMA needs to be clarified.
- 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 reduce these delays. Some scope exists for greater standardisation and liberalisation within the national planning system.
- Inclusionary housing policies provide requirements or incentives for developers to provide "affordable" or lower-cost housing. They are a common feature of overseas planning systems, but are not prominent in New Zealand. Only Auckland Council and Queenstown Lakes District Council have inclusionary housing policies in their current or proposed District Plans, although Special Housing Areas and Housing Accords provide more opportunities to introduce such policies.
- Inclusionary housing policies should not be a substitute for planning system reform. However, they can be seen as a 'second best' option, where planning system reform fails to deliver sufficient flexibility or fast enough responses to longstanding housing deficits.
- To be successful, inclusionary housing policies should be designed with the nature of the current planning system in mind. In New Zealand's case, this means that incentive-based (rather than mandatory) policies are more suitable. Inclusionary housing policies are also most likely to succeed where they are part of a wider suite of tools, most of which require central government support.

5.1 Introduction

This chapter explores policies and practices under the following thematic "leading practices" for planning identified in the Commission's review:

- proportionate and well-targeted regulations; and
- streamlined approval processes.

It also considers the role of inclusionary housing policies in planning systems.

5.2 Proportionate and well-targeted regulations

Land use regulations can play an important part in managing externalities (such as overshadowing, congestion and pollution) 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, as discussed in Chapter 2, land use regulations can affect the price and supply of housing. To provide an overall benefit to the community, regulations must be designed with all the relevant costs and benefits in

mind. Evidence collected through this inquiry suggests that some local authority regulations are imposing high compliance and economic costs, leading to increases in the cost of development and the loss of potential housing. The costs of some particular regulations appear to outweigh any likely benefits. Problems with excessive regulatory costs stem from a number of sources, particularly conflicting objectives, inadequate analysis and poor targeting.

5.3 How land use regulations are made in New Zealand

Land use rules and regulations are made either under the Resource Management Act (RMA) or the Local Government Act (LGA). The majority are made under the RMA in District Plans.

RMA processes

District Plans lay out the requirements that developments must meet to gain a 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 a resource consent. Whether or not a resource consent is required depends on the classifications applied to the activity. Under the RMA, there are six types of classification (Box 5.1).

Box 5.1 Activity classifications under the Resource Management Act

- **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 a National Environmental Standard (NES), Plan or proposed Plan.
- **Restricted discretionary:** Resource consent is required. The consent authority's discretion is restricted to clearly specified matters (eg, in a NES, Plan, or proposed Plan). Where a 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 a 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. Some of these were described in Chapter 3.

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; (2% of subdivision and land use applications were limited notified.

Local Government Act processes

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
- 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 implications (s. 155(2)); and
- use a special consultative procedure (SCP) (Box 5.2) 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))

Box 5.2 Special consultative procedures

Local authorities are required by the LGA to use the SCP in exercising specific powers. Where a local authority proposes to introduce a bylaw, the SCP requires a local authority to prepare a:

- **statement of proposal**, including a draft of the bylaw, the reasons for its proposed introduction and a report on the consideration of the perceived problem that the bylaw would address, the choice of bylaw as the most appropriate remedy of addressing the problem, and any implications under the Bill of Rights Act; and
- **summary of information**, which must be a "fair representation of the major matters in the statement of proposal".

The summary must be distributed as widely as reasonably practicable, having regard to the content, as a basis for consultation. The summary should indicate where someone can inspect or obtain the statement of proposal, and the timeframe for submissions.

Source: Palmer, 2012, pp. 246, 248.

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

5.4 Impacts of regulation on housing supply

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

[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).

supply of infill capacity was "in the order of 10 years", not the 28–55 years estimated by Council officers (ibid, 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 be 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)

Unduly costly requirements

The Commission identified a number of regulatory requirements that appear to impose costs above their likely benefits – minimum apartment floor size rules, apartment balcony size requirements, minimum parking requirements and building height limits.

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:

- 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).

F5.1 Balcony or private open space requirements for apartments create costs that appear to outweigh any likely benefits.

R5.1 Urban territorial authorities should remove District Plan balcony / private open space 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).

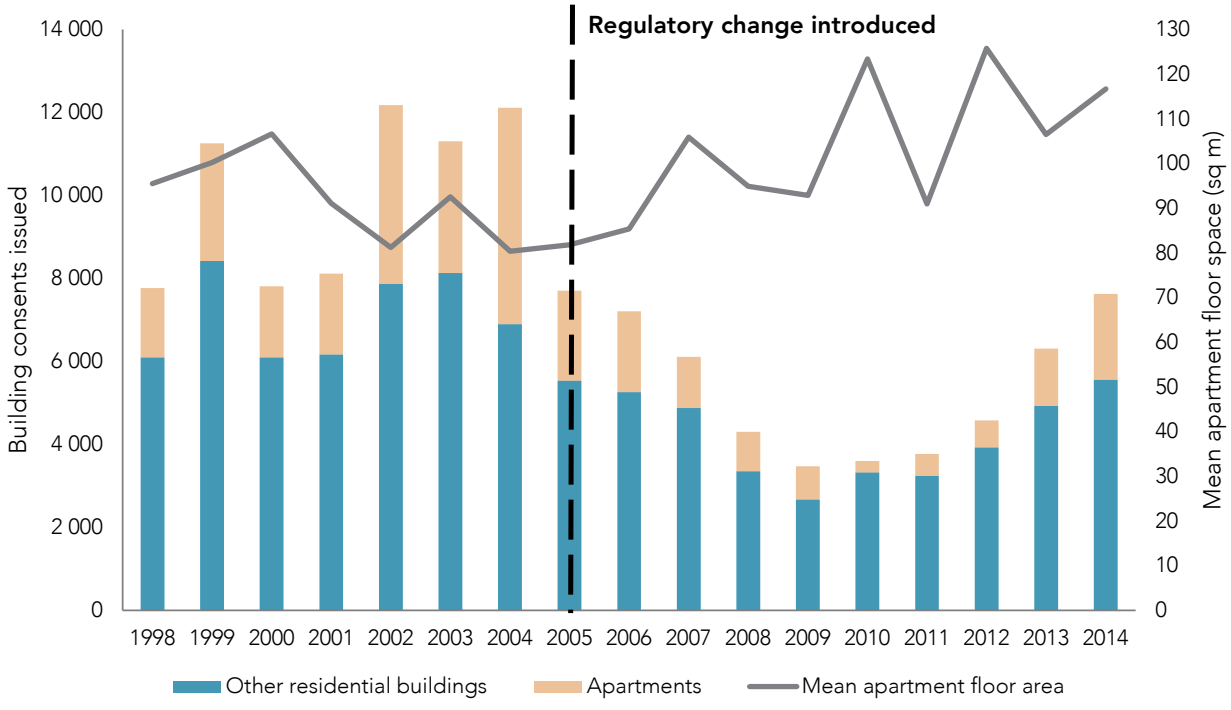
A number of North American cities have relaxed or waived minimum floor size rules in specific cases to allow the development of "micro-apartments" (Wong, 2013; Romney, 2012). In New York, the city government launched a competition to pioneer the development of innovative 25–28 square metre micro-apartments 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
- Family 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, 2012a, 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, 2012a). Auckland got closest to this level in the years 2002–2004, driven significantly by a growth in apartments. It 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 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, 2014c, p. 14). Once this work is complete, urban local authorities should review minimum apartment size rules in their District Plans, with a view to removing them.

F5.2 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 the Building Code.

R5.2 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, local authorities should review minimum apartment size rules in their District Plans, with a view to removing them.

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 (p. 35).

Two key reasons for the 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 6:1 (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 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 commented that removing minimum parking requirements for residential development in the Wellington central business district 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)

F5.3 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.

R5.3 Urban territorial authorities should remove District Plan minimum parking requirements, and make more use of traffic demand management techniques.

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 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 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[31] (2014b, p. 12); and
- each kilometre a household lived away from the Auckland city centre increased the yearly cost of commuting by $738 (2014b, 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. 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" (ibid).

Before introducing building height limits, local authorities should consider the relative sizes and distributions of the resulting costs and benefits. It is notable that no cost-benefit analysis was prepared as part of the section 32 evaluation report for the proposed building height rules in the PAUP (Auckland Council, 2013a, p. 9).

F5.4 Building height limits contribute to housing shortages and higher house prices, and force cities to move outwards, increasing transport costs for some members of the community. 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.

R5.4 Local authorities should undertake robust cost-benefit analyses before considering the introduction of building height limits, and should lift current limits where it cannot be demonstrated that the benefits outweigh the costs.

Q5.1 Do other land use rules impose costs above their benefits? What evidence exists of excess costs?

5.5 Problems with regulatory development

Three sources of unnecessary regulatory cost emerged from the inquiry:

- multiple or conflicting objectives in regulatory plans;
- inadequate analysis before rules and regulations are introduced; and
- poor interaction with other regulatory regimes.

[31] The study used a hypothetical three-storey height constraint limit as a proxy for the combined effect of land use regulations.

Multiple or conflicting objectives

District Plans cover a range of issues and include a number of policies and rules. In some cases, these policies and rules 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, 2014b, 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 create 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 dwellings (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)

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. For a further three, options analysis was "partially complete and convincing", with the remaining four "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, 2014b, 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)

F5.5 Multiple and conflicting objectives in RMA plans reduce the ability of those plans to provide sufficient land and development capacity.

F5.6 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. 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 may be unlawful (Box 5.3).

Box 5.3 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 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 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, describing them as "legally problematic…potentially ultra vires and open to challenge" (2014b, 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, with a view to removing them.

F5.7 District Plan provisions which impose controls on the internal design and construction of building that are more stringent than standards set under the Building Act may be unlawful.

R5.5 Local authorities should review District Plan controls on the design and construction of buildings or dwellings that exceed standards set under the Building Act, with a view to removing them.

Moving forward

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 by Auckland Council over the past few years to commission more detailed cost-benefit analyses (Box 5.4).

Box 5.4 Leading practice: Auckland Council and cost-benefit analysis

In recent years, Auckland Council has been commissioning benefit-cost 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, they 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.

F5.8 Auckland Council's commissioning of detailed benefit-cost 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.

However, at a more fundamental level is the question of whether the current legislative frameworks support efficient and effective land use regulation for housing. A key issue is the lack of any explicit priority given to housing supply or affordability in the RMA.

Clarifying the importance of housing

The Commission's terms of reference state that this inquiry is not a "fundamental review of the Resource Management Act". As a result, the Commission has been reluctant to discuss issues of the RMA's purpose and focus. However, the topic of the RMA's impact on the ability of cities to change and provide for housing was so prominent in the evidence presented to this inquiry, that the Commission concluded that it needed to address the matter explicitly.

A number of submitters and other commentators argued strongly that the RMA does not give adequate recognition to the needs of cities and housing:

> … 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)

Local Government New Zealand noted that, in comparison with the RMA, the Housing Accords and Special Housing Areas Act puts a very strong focus on housing:

> Under the RMA the need to provide for residential development is not explicit; the purpose of the RMA is to promote the sustainable management of natural and physical resources...while managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety.
>
> This breadth of purpose provides the mandate for a council to provide for the residential needs of a community. "Housing needs" are weighed up alongside others. The HA&SHA Act, on the other hand, has as its purpose to enhance housing affordability by facilitating an increase in land and housing supply in certain regions or districts; the HA&SHA Act treats housing as essential infrastructure, elevating housing delivery. The provision of adequate infrastructure has weighting in the Housing Accords and Special Housing Areas Act…and the Minister must not recommend the making of an Order in Council unless s/he is satisfied that adequate infrastructure exists/is likely to exist to service qualifying developments, and a resource consent must not be granted unless sufficient and appropriate infrastructure will be provided to support the qualifying development. (sub. 54, p. 5)

However, other submitters believed that the RMA can meet urban and housing needs:

> The Resource Management Act and underlying processes work extremely well. There is certainly no need for further amendment to that document. Plan changes, consents and development can progress very quickly if the will is there and the right people are involved. It is the people that make the difference. (Glenn Broadbent, sub. 58, p. 2)
>
> There is more than sufficient scope within the RMA to achieve co-ordination and quality of outcomes in the urban land development process. (Tasman District Council, sub. 25, p. 4)

Munro and Beattie (2014) suggested that the problems may rest less with the legislation and more with an overly narrow interpretation:

> Section 5 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)

There is certainly a 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 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)

Even where land supply is currently an objective in RMA plans, it has no priority or primacy in legislation and so must be considered alongside other goals (Property Council, sub. 33, pp. 6–7; Local Government New Zealand, sub. 54, p. 5). Wellington City Council noted that it had tried to use other, non-RMA strategies to encourage land supply, but that these "important strategies do not have any regulatory effect and often are ignored or downplayed by the Environment Court as significant policy documents" (sub. 21, p. 22).

Given the strongly diverging views about the matter and the impact of multiple regulatory objectives on the ability of local authorities to supply land for housing, the Government needs to clarify the role and importance of housing and urban environments in the RMA.

F5.9 Strongly diverging views exist about the appropriate weighting given in the RMA to urban growth outcomes and housing relative to other outcomes.

R5.6 The Government should introduce amendments to the RMA to clarify the role and importance of housing and urban environments.

5.6 Streamlined 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 both this inquiry and the *Housing affordability* inquiry emphasised the costs involved in regulatory delays.

A major source of delay cited by a number of submitters (primarily local authorities) was statutory consultation requirements and appeal rights. These issues were discussed in more detail in Chapter 4. However, other sources of delay were either caused by council processes or were within the control of local authorities. Particular issues cited include:

- 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:

> 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 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 is likely. For example, "positive open spaces", "visual appeal" and "quality of experience" mean different things to different people. (Registered Master Builders & 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 [Building Consent Authorities] 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 & 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 (Tainui Group Holdings, sub. 53, p. 2; Property Council New Zealand, Annex 7a to sub. 33, p. 1; Grimes & Mitchell, 2015, p. 35). 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 because of the very strong concerns expressed by users of the planning system about the impacts of discretion and because 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 there are high degrees of trust between regulators and the regulated industry (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 (eg, Department for Communities and Local Government (DCLG), 1998). 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" (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 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).

F5.10 Arrangements to bring all parts of council with a potential impact on a development project together and provide a "one-stop shop" for developers can help 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 8.

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 (LGPMC, 2009, p. 16) 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 5.5.

Box 5.5 Electronic planning tools in Australia

Across Australia

At a high level, there are seven main types of tools 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 Environment and Planning Department has a number of e-planning tools in place, including:

- **Interactive Buildings:** a "free online [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 varied 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 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 allows 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 allows people to apply online for a resource consent, check their documents and upload further information, but not to 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.

F5.11 Opportunities exist in New Zealand to reduce costs and delays by making greater use of electronic planning tools.

Greater standardisation

A third 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 Australian Productivity Commission, 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$45.3m 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 the 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 Housing Accords and Special Housing Areas Act has also – albeit temporarily – introduced common and streamlined approval processes for particular types of residential developments in declared areas.

However, clear scope exists for further harmonisation and standardisation within the New Zealand planning system, particularly around commonly used terms in District Plans. This 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 Ministry for the Environment 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 suggest that the government intends to introduce greater standardisation of planning terms and definitions (Minister for the Environment, 2015, p. 9).

Potential may also exist to further standardise District Plan rules around the provision of telecommunications, gas and electricity infrastructure in developments and subdivisions, given that these services are often delivered by organisations that cross territorial authority borders and have common technological and safety requirements. Vector and Chorus highlighted the costs of submitting on multiple district and regional plans, and managing variations in rule for projects that cross borders (Vector, sub. 11, p. 3; Chorus, sub. 72, p. 3).

Two National Policy Statements and two NES currently partially cover this territory (Table 5.2). The Ministry for the Environment is also consulting on amendments to the telecommunications facilities NES, which would add further permitted activities, including the deployment cables within road reserves (subject to specific conditions) and the installation of larger utility structures (eg, power poles) and higher antennae (MfE, 2015). Currently, no national RMA guidance exists for the installation or maintenance of gas infrastructure.

Table 5.2 RMA legislative tools that apply to electricity or telecommunications

RMA legislative tool	Covers
National Policy Statement on Electricity Transmission	Provides guidance to local authorities to ensure that, in providing for the transmission of electricity within a region or district and in managing the effects of the transmission network on the environment, the operational and long-term development requirements of the network are appropriately considered and its status as a linear cross-boundary network is fully recognised.
National Policy Statement on Renewal Electricity Generation	Gives guidance to local authorities about how RMA planning documents should deal with renewable electricity generation, including the construction, operation and maintenance of structures associated with renewable electricity generation, small and community-scale renewable generation activities, systems to convey electricity to the distribution network and/or the national grid, and electricity storage technologies associated with renewable electricity storage.
National Environmental Standard on Electricity Transmission Activities	Specifies which transmission activities are permitted, subject to conditions to control the environmental effects. The standards also specify consent requirements for activities that fail to meet the permitted activity conditions. Permitted activities include operating existing transmission lines, maintaining conductors (wires) and adding a limited number of conductors provided limits on electric and magnetic fields are not exceeded, signs on transmission line support structures (within specified size limits), and strengthening, upgrading and replacing support structures and foundations.
National Environmental Standard on Telecommunication Facilities	Specifies which telecommunication activities are permitted, providing they meet specific terms and conditions. Permitted activities are radiofrequency fields generated by all telecommunication antennas (such as cellphone towers), the erection of equipment cabinets at the roadside, the addition to existing roadside structures (such as light poles) of antennas used for wireless internet connections and mobile phones, and noise levels from roadside cabinets, up to specified noise limits.

Q5.2 What would be the costs and benefits of nationally standardising land use rules around the provision of telecommunications, gas and electricity infrastructure across all District Plans?

However, it is not clear to the Commission that there would be a net benefit in further 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, which 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 has a cost. A 2010 Ministry for the Environment 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).

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 and Doneghan, 2015, p. 133). Planners and developers expressed concerns that these decisions would reduce capacity, lead to inefficient land use, and see dwelling growth pushed to the CBD and outer fringes (Property Council of Australia, 2013; Derkley, 2014).

F5.12 The Commission is not convinced that the benefits of nationally consistent land use rules for specific types of residential development outweigh the costs.

Q5.3 Does introducing nationally consistent land use rules or specific types of residential development have other possible benefits that the Commission should consider? What types of land use rules should be made nationally-consistent? Why?

Further liberalisation

Another means of reducing regulatory costs is to remove the requirement for local authority approval or reduce the scope for discretion. This is one of the other goals of the Australian development assessment reforms, creating clear "tracks" into which simple and low-risk proposals are either exempted from assessment or assessed against objective measures.

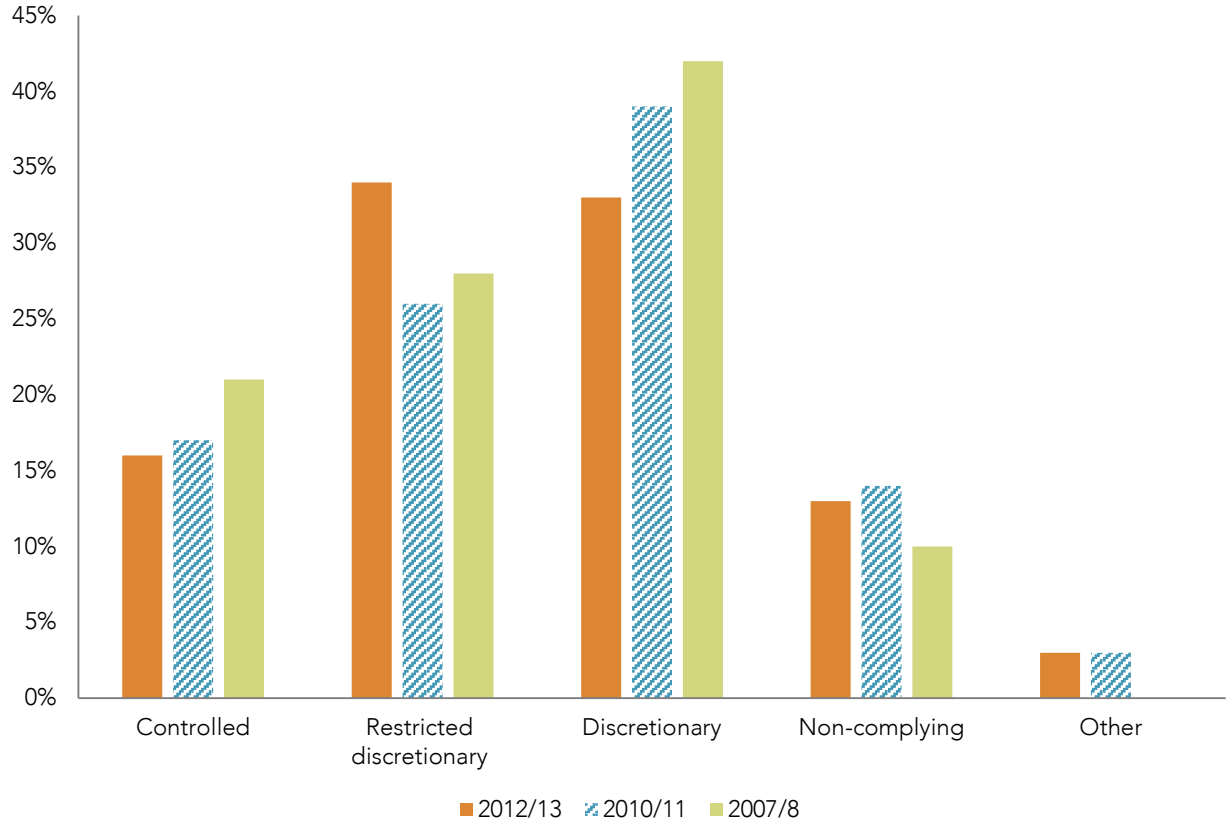
In the New Zealand context, this would mean:

- 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)

Little information exists on the proportion of land use activities that are "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 Ministry for the Environment's 2012/13

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 5.2)

Figure 5.2 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 5.6).

Box 5.6 Leading practice: Queenstown Lakes District Plan review

Queenstown Lakes District Council is currently reviewing its District Plan, with a view to providing greater accessibility, focus and flexibility. As noted earlier, 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.

As noted above, a standardised or centrally driven approach to liberalising land use rules may be costly and might not necessarily reduce complexity in the planning system. However, other institutional reforms

proposed in this report – such as clarifying the role of housing and urban environments in the RMA (this chapter) and strengthening the role of central government in the planning system (Chapters 9 and 10) – should create stronger incentives on councils to free up the use of land for housing.

F5.13 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.

R5.7 In reviewing their District Plans, local authorities should move more residential land-use activities into "permitted" or "restricted discretionary" status.

Q5.4 Would national direction on what residential land-use activities should be "permitted" in RMA Plans provide net benefits? What sorts of activities should such a direction focus on?

5.7 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. For example:

- Section 106 of the English Town and Country Planning Act makes the provision of affordable housing a "material consideration" for the provision of planning approval. Under this provision, local authorities that had identified a need for social or low-cost housing in their area can require that a proportion of housing on a development is 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 have been described by Gurran et al. 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 number of submitters and other stakeholders argued that New Zealand's planning and development system needs to make greater use of inclusionary housing policies (Hutt City Council, sub. 17, p. 3; Greater Christchurch Urban Development Strategy, sub. 18, p. 7; SmartGrowth, sub. 27, p. 8; Community Housing Aotearoa, sub. 34, p. 1; Future Proof, sub. 39, p. 5; New Zealand Housing Foundation, sub. 69, pp. 11–12; Registered Master Builders & Construction Strategy Group, 2015, pp. 12–13).

New Zealand practice

Provisions in RMA plans

Only two territorial authorities within the scope of this inquiry had inclusionary housing policies in their current or proposed RMA plans. The 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, 2013c, B2.4).

The Queenstown Lakes 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, p. 4-59). 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.

Housing Accords

At a national level, the Housing Accords and Special Housing Areas (HASHA) Act permits the 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 six Housing Accords signed to date take different approaches to the matter of affordable housing. Of the six, the Christchurch Accord has the strongest focus on affordability issues and actions (Table 5.3).

Table 5.3 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 accelerating 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."
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."

Housing Accord with the New Zealand Government	Affordable housing provisions
	• "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; CCC / New Zealand Government, 2014; QLDC / New Zealand Government, 2014.

The Christchurch Accord is also unique in having an explicit definition of affordability in its "aspirational targets":

- "[a] 10% reduction in the number of households at the 40th percentile of household income paying more than 30% of household income in 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 (SHA) have detailed affordability criteria for qualifying developments. In Auckland SHAs, 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").[32]

Purchaser eligibility criteria exist for the affordable houses within Auckland SHAs. Purchasers of "relative affordable" dwellings must have a gross household income that does not exceed 120% of the Auckland regional median, be natural persons, first-home buyers and intend to own and occupy the dwellings for at least three years. For "retained affordable" dwellings, the purchasers must be registered community housing providers or Housing New Zealand Corporation.

Details of other SHAs are either still being worked through between local authorities and the government, or will be negotiated with developers. A February 2015 press release from the Western Bay of Plenty District Council indicated that, for the Omokoroa SHA affordability may be determined in terms of the percentage of total dwellings at or below specified price points – ie, 25% of dwellings between $350 000 and $400 000, and 50% above $400 000 (Western Bay of Plenty District Council, 2015).

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

[32] Developers can also combine these two approaches.

City Council, 2014b, 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" (ibid, pp. 4–5).

Inclusionary housing policies as a "second best" approach?

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).

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. This approach was recommended by the Commission in the *Housing affordability* inquiry, and the Commission continues to see this as the priority. The risk with inclusionary housing policies is that they can draw the focus of local authorities away from ensuring that the overall planning system is as efficient and enabling as possible.

F5.14 Inclusionary housing policies are sometimes characterised as compensation for the negative impacts on the poor of the planning system. If the planning system is the proximate cause of declining affordability, planning system reform should be the priority response.

Even so, it is likely that, even with reform, some planning systems will continue to impose a degree of restrictiveness on the supply of housing, or may not be able to resolve longstanding supply deficits quickly. The effects of these gaps will be felt most at the cheaper end of the market and by lower-income people (Chapter 2). As such, inclusionary housing policies can be thought of as a "second best" approach to the issues of housing affordability. The challenge is to design such policies in a manner that minimises undesirable side effects or efficiency losses.

F5.15 Even with reform, some planning systems may continue to impose a degree of restriction on the supply of housing or struggle to resolve longstanding supply deficits quickly. Inclusionary housing policies may therefore be a "second best" response to housing affordability issues in these areas.

Minimising undesirable side effects or efficiency losses

Inclusionary housing policies can have a number of potential negative impacts, including:

- uncertainty and delays to development approvals;
- higher prices for non-"affordable" housing; and
- administrative costs to enforce the policies.

Uncertainty and delays

Inclusionary housing policies that involve a high degree of discretion on the part of local authorities or require negotiation between councils and developers 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 and Chancellor of the Exchequer 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, 2004b, p. 67).[33] 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 (2012, p. 108).

Given the focus of this inquiry's Terms of Reference on improving the speed and efficiency of the housing supply chain, the Commission considers that inclusionary housing policies which involve a high degree of discretion by local authorities or negotiations should be avoided.

F5.16 Inclusionary housing policies that require negotiations between councils and developers, or high degrees of discretion on the part of local authorities, are likely to create uncertainty and delays.

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.

Knapp, Bento and Lowe (2008) reviewed the impacts of inclusionary zoning schemes on the California housing market and found that while the prices of lower cost housing fell by about 0.8%, prices for the more expensive properties increased by about 5%. Another assessment of inclusionary zoning in San Francisco and Boston using regression analyses "suggest that IZ [inclusionary zoning] 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, 2015, 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 (Chapter 2).

Administrative costs

Depending on their form, inclusionary housing policies can create high administrative costs, especially around enforcement. Examples include policies that require plan-mandated affordable housing to be provided to specified residents or organisations or that require ongoing monitoring to ensure that the housing is not sold on to the general market.

Fitting the policy to the context

Whether or not a particular inclusionary housing policy is successful depends to a large extent on the nature of the institutional framework and the existence of other supporting policy tools.

The type of land-use regulatory system in place and underlying social assumptions have an impact on the form of inclusionary housing policy that can or should be adopted. In particular, countries with zone-based planning regimes and stronger property rights appear to best suit incentive-based policies (such as density

[33] 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, 2006b, p. 122).

bonuses, which allow developers to build more densely than general zoning rules require in return for more affordable housing). Gurran and Whitehead's comparison of British and Australian affordable housing policies concluded that "Australia's tradition of private sector housing provision…and ambivalence towards urban regulation, helps to explain why planning mechanisms for affordable housing never really gained traction" (2011, p. 1210). They also commented that the

> underlying land use zoning approach [in Australia] has limited scope for planning authorities to secure additional community benefits (such as affordable housing) through the development assessment process. (ibid)

In another analysis of inclusionary housing policies, Whitehead (2007) contrasted the English approach with those of other Commonwealth countries:

> Other countries with fundamentally similar planning legislation, such as Australia and New Zealand, over the years tend to have reallocated stronger property rights to developers. As a result, greater incentives have to be provided (such as trading higher densities for affordable housing provision) in order to ensure land and in some instances finance, is made available to meet affordable housing objectives. (p. 39)

Davison et al. similarly noted that the

> [e]vidence on whether mandatory, fixed affordable housing requirements are more effective than incentive based and negotiated models is mixed, with mandatory negotiated approaches appearing to contribute positively to overall housing supply as well as affordable homes in the UK…but incentive based schemes coinciding with increased housing production in parts of the US. (2012, p. 25)

This suggests that incentive-based inclusionary housing policies are more likely to fit with the New Zealand planning and institutional environment. Such housing policies also avoid the disruption, uncertainty and potential loss of development that is likely to accompany the introduction of inclusionary housing policies without additional liberalisation of planning rules to already-zoned land, where the impact of zoning rules has been priced into the land.

F5.17 Incentive-based inclusionary housing policies are more likely to fit with New Zealand's zone-based planning system and (relatively) strong property rights.

Inclusionary housing policies also appear to work best when they are part of a wider suite of tools. Indeed, 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)

The Commission has already discussed the role of public land as a key input to land supply strategies (Chapter 4). It is also a critical input to inclusionary housing policies.

Another possible option is to require payment, or the provision of land, for affordable housing purposes when land is rezoned to a higher-value use. Such approaches, if designed well, are less likely to create uncertainty, bid up the price of non-targeted houses or involve significant administrative costs. However, such "betterment levies" present a range of political challenges, as discussed in more detail in Chapter 10.

F5.18 Local authority polices on inclusionary housing are likely to struggle without a range of other supporting polices, most of which require support from central government.

5.8 Conclusion

Land use regulations can play an important part in supporting the effective and efficient functioning of cities. However, like other forms of regulation, they need to be designed and implemented with care. Evidence presented to the Commission suggests that a number of particular types of regulation impose undue costs and have a harmful effect on the supply, choice and affordability of housing. These regulations should be reviewed and removed. Clarifying the place of housing and urban environments in the RMA, reducing the scope for discretion in local authority land use rules, and making greater use of electronic technology would also help to give greater focus on housing objectives in District Plans and reduce delays in gaining consents.

Inclusionary housing policies are commonly used in the United States, the United Kingdom and Australia, but are not very prominent in New Zealand. They can be thought of as a "second best" policy in cases where reforms to planning systems fail to provide sufficient responsiveness or do not overcome longstanding housing deficits. Inclusionary housing policies need to be designed to fit the wider planning system, and are most likely to succeed where they are part of a wider suite of tools, most of which require support from central government.

6 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 an overly restrictive approach to infrastructure supply can 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 in such a way that creates some competitive tension in the market, while not over-capitalising in the construction of costly infrastructure.
- Staged construction and other innovative approaches that lower the up-front costs and allow services to be scaled up as demand increases can help to overcome the difficulties of investing in infrastructure to support growth. Developer-led infrastructure also has potential to deliver a swifter and lower-cost supply of infrastructure.
- Another good practice is for councils to work backwards through the land supply chain to identify measures that need to be taken, including the provision of infrastructure, to ensure that there are no impediments to a responsive supply of dwellings.
- 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 unlock land supply by enabling growth in areas where there is spare capacity within existing infrastructure networks.
- Robust information about the current use, location and condition of existing infrastructure assets is a fundamental prerequisite for the effective planning, funding and delivery of urban infrastructure.
- User charges, such as volumetric water pricing and road tolling, can also contribute to an improved supply of land if it increases 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 tolls for existing roads or congestion charges.
- Because developers are required to build some infrastructure but councils are responsible for its maintenance, 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 may be a case for greater consistency of infrastructure standards.
- The Commission is interested in further evidence regarding whether the process by which land is designated for infrastructure could be improved, and whether infrastructure that is provided by private utility companies is sufficiently integrated into land development processes.

6.1 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 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).

The costs associated with rolling out new infrastructure to support urban growth are significant. Maintaining infrastructure and upgrading it to ensure it remains fit for purpose also accounts for a major share of councils' time and resources. More effective delivery of new infrastructure and better management of existing assets are both important for improving the supply of serviced land for housing.

This chapter examines the processes by which councils plan and deliver infrastructure to support urban growth. It begins by setting out the typical infrastructure requirements needed to support urban growth and the role that infrastructure plays in the housing supply chain. The chapter then discusses the various planning requirements that councils undertake under the Local Government Act 2002 (LGA) and the Land Transport Management Act 2003 (LTMA). It then examines some of the challenges that councils face in planning infrastructure to support growth, managing existing infrastructure, and constructing new assets. A number of good practices are identified along with draft recommendations for improvement.

Chapter 7 examines how infrastructure is paid for, and Chapter 8 examines issues with the governance of transport and water infrastructure.

6.2 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, 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 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;
- 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, libraries and schools.

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 are 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. Similarly, water supply to a new apartment building might make use of an existing water treatment plant (shared infrastructure) yet also require local connections.

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 that are set by the local council (use of infrastructure standards and their variability is discussed in section 6.7). 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).

Trunk infrastructure – 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 noted by Tauranga City Council, 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. (Tauranga City Council, 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 around $25 000 a dwelling to just over $50 000 a dwelling (excluding GST) (Figure 6.1).

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 7.

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 their contract with Crown Fibre Holdings, Chorus charges a connection fee of $900 (excluding GST) for each lot for developments of four lots or more for fibre reticulation (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 and community halls.

F6.1 Infrastructure costs account for a significant share of the cost of new dwellings. Costs are location-specific and consist primarily of on-site infrastructure construction costs, development contributions 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 the dwelling's location, its proximity to existing infrastructure assets, and the type of dwelling. Many inquiry participants commented on infrastructure costs and whether there is a significant variance 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)

> … the additional infrastructure required to either connect greenfield areas to the existing networks or provide standalone treatment facilities typically results in the per property servicing cost in greenfield areas being more expensive than brownfield areas. 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)

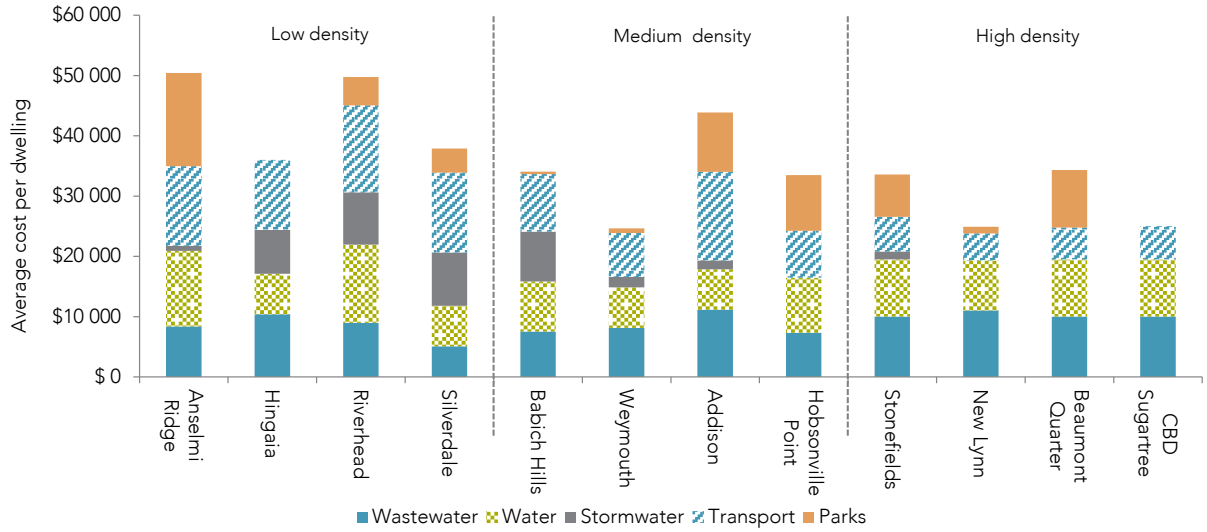
Some submissions suggested that there is a tendency to overstate the potential infrastructure savings associated with higher-density development:

> 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 (2009, p. 8) examined the relationship between urban form and infrastructure costs. They conclude that "higher levels of urban density, in general, lead to cities that are cheaper to build and run". However, they also note 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 6.1). However there is considerable variation in costs between sites of similar density.

Figure 6.1 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. Within this research there are conflicting results, however, on balance the existing research favours the hypothesis that low-density development is more expensive to support (Box 6.1).

Box 6.1 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 extensive land-use patterns cost more to support, and how any influence differs among different types of spending. Their analysis is based on the per capita spending of local governments 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. (Carruthers and Úlfarsson, 2008, 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" (ibid, 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) examine 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" (Ladd, 1992, 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.

F6.2 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.

6.3 How does the planning process work for infrastructure?

The infrastructure planning process

Councils invest significant time and resources in managing their infrastructure assets and planning for network extensions. Most planning requirements are set out in the LGA and the LTMA. Councils, private developers and utilities companies also have to follow RMA processes when building new infrastructure.

Local Government Act 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 the meeting the infrastructure 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[34] are required to undertake. These are summarised in Table 6.1.

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

Table 6.1 Local Government Act planning processes

Requirement	Mandatory	Timeframe	Main purpose
Long-Term Plan	Yes	10 years	To plan activities and service provision over a 10-year timeframe. 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.
Financial reporting	Yes	1 year	To report planned and actual performance against a number of financial performance benchmarks.
Annual Plan	Yes	1 year	To set out planned activities, revenue and expenditure for the coming financial year.

Long-Term Plans

The LGA requires all local authorities to prepare a Long-Term Plan (LTP) every three years, covering a period of at least ten 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:

- 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 (for example 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 local authorities to prepare an infrastructure strategy and incorporate this within their 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 intense 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).

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.

Financial reporting requirements

Regulations introduced under the LGA in 2014 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. Financial benchmarks and their impact on council behaviour are discussed in Chapter 7.

Annual Plans

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.

Land Transport Management Act 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.[35] 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.[36]

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

> 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 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).

Conclusion on infrastructure planning

New Zealand's local authorities collectively own infrastructure assets valued at $76 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, 2014b). 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 to undertake a range of infrastructure management and planning processes. Statutory planning requirements under the LGA have increased in recent years, with councils encouraged to prepare asset management plans, and a requirement to produce a 30-year infrastructure strategy. The increased requirements under the LGA have been partially offset by recent legislative changes that seek to streamline the transport planning requirements required by the LTMA.

F6.3 Councils are required to undertake a relatively rigorous infrastructure planning processes – a reflection of the fact that councils are asset-intensive organisations.

Despite this recent rebalancing in this legislative planning frameworks, councils face challenges in integrating longer-term land use, infrastructure and transport decisions. These challenges are discussed in Chapter 3 and a new legislative planning avenue is proposed to help resolve them. Local authorities also

[35] 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.

[36] Auckland Transport plays this role in Auckland.

face shorter-run difficulties in planning and delivering infrastructure. These difficulties are examined in the following sections.

6.4 Challenges in planning infrastructure

As discussed in the previous section, councils use a range of 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)

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 9, 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 creates 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 there are sound reasons 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 such as 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). Tauranga City Council 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 during 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 6.2).

Box 6.2 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)

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 the provision of growth 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. Many inquiry participants raised concerns about the practice of land-banking, where land owners drip-feed land onto the market to maintain high prices (this issue is discussed in more detail in Chapter 9). 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 also be problematic in some circumstances. Some infrastructure can be extended incrementally (for example some extensions to the roading network), while other infrastructure can only be added in large chunks – for example 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 also be 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".

F6.4 Councils tightly control the supply of infrastructure to support urban growth. This is a prudent approach from the perspective of managing costs and risks. However, it can constrain the supply of land for housing. In turn, this can contribute to higher land prices by reducing competition among developers and reinforcing expectations among investors of a scarce supply of land for housing.

6.5 Approaches to increasing the supply of infrastructure

While it is appropriate for councils to take a deliberate approach to planning the delivery of growth infrastructure, an overly conservative approach to investment will constrain the supply of land for housing. This will have adverse consequences for affordability. 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.

The funding arrangements for infrastructure to support residential growth (particularly debt-funding and development contributions) are discussed in detail in Chapter 7.

Developer-led infrastructure

Several councils have expressed a desire to shift the risk associated with delivery of infrastructure onto the development community. For example, Tauranga City Council note 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. (Tauranga City Council, sub. 47, p. 16)

Tauranga City Council also notes that even if developers could afford to take responsibility for lead infrastructure, a need still exists 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" (Tauranga City Council, 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 to enter a development agreement by requiring councils to provide written notice of its decision regarding a request, and the reasons for the decision.

Waikato District Council provides one example 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. We believe it is more related to the market (developers), and a critical mass issue, i.e. 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)

Development agreements are also used reasonably frequently in Wellington City:

> 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)

Many 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 7). 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. Developers are also incentivised to construct infrastructure at a standard that purchasers want. However, little incentive exists to construct infrastructure with long-term maintenance costs in mind – as this responsibility sits with the local authority.

F6.5 Development agreements enable developers to take responsibility for building major infrastructure. This shift has the potential to generate a swifter supply of infrastructure at a lower cost.

As formal requirements for development agreements have been in place for such a short time, it is difficult to assess the effectiveness of such agreements and how often they are used. Anecdotal reports suggest that although development agreements are used relatively infrequently, their use has increased since the legislative changes were introduced in 2014. Most agreements are used for relatively small pieces of

infrastructure such as local sewage pipes and pumping stations. This is likely to reflect, at least in part, the fact that relatively few residential developers are of the scale needed to commit to the construction of major infrastructure works.

The Commission is interested in any further information from developers and councils regarding the use of development agreements, and their advantages and disadvantages.

Q6.1

- What are the main advantages and disadvantages of development agreements?
- What, if any, barriers exist that unnecessarily limit the uptake of development agreements?

Taking a staged approach to delivering infrastructure

One challenge identified in the provision of 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 the provision of wastewater infrastructure over the past ten 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 6.3 discusses some of the approaches that SDC has used to manage the risks associated with supplying infrastructure in advance of demand.

Box 6.3 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, the Council investigated options for wastewater services to meet current and future needs. This led to plans being made for the establishment of 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 are 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.

F6.6 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 approached used by Selwyn District Council is a good example of this leading practice.

Should councils adopt infrastructure supply targets?

As discussed in Chapter 4, many local authorities have set some form of target for the supply of land to meet future residential growth. 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.

Chapter 4 notes that councils have a direct influence over several elements within the housing supply chain, particularly planning policies and infrastructure provision. The chapter recommends that local authorities set targets for zoned and serviced land, and that they monitor dwelling completions and net changes in the dwelling stock, relative to expected and actual population and household growth.

Setting targets for the supply of infrastructure is unlikely to be helpful unless those targets are part of a concerted and coordinated approach that aims to ensure that the supply of *dwellings* meets demand. 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. For example, Christchurch City Council (CCC) provided the Commission with a map of the city showing greenfield land availability and status as at November 2014 (Table 6.2). This classification of land supply gives a much more accurate picture of available land and its position in the supply chain.

Table 6.2 Greenfield land status in Christchurch City

Section status	Available sections (November 2014)
Un-zoned and un-serviced (but with 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.

R6.1 When councils refer to the supply of land for housing, they should be clear about the readiness of land for building (eg, un-zoned but planned-for future zoning; zoned; zoned and serviced; zoned, serviced and consented).

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 rate 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.

Tauranga City Council 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 also 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 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)

The Commission is interested in further information from both Councils and developers regarding mechanisms to better tailor infrastructure investment to meet changing demand.

Q6.2 What approaches do councils use to match infrastructure investment to changing demand? How successful are they?

6.6 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 associated with the effective use of existing infrastructure assets:

- 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 (for example by avoiding underuse), then councils may be able to accommodate additional growth without the need for costly new investments, while re-directing their capital works programme towards increasing the supply of infrastructure where and when it is needed most. At a global level, McKinsey Global Institute estimate 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).

F6.7 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.

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 the CBD could be accommodated entirely with existing infrastructure (Box 6.4).

Box 6.4 Unlocking supply by taking advantage of excess infrastructure capacity

Wellington City Council has identified Victoria Street in Wellington's CBD as an area where they would like to see more people living and working in future. The council is now in the initial stages of a redevelopment of the street to improve its pedestrian areas. In the future, the council expects that Victoria Street will accommodate another 1 100 new apartments housing at least 2 500 people along with 37 000 m^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), personal communication, 2015.

At least two pre-conditions need to be met if councils are to effectively take advantage of existing infrastructure capacity.

- 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).
- Areas of existing capacity will often be established residential suburbs. This means that taking advantage of spare capacity is likely to require some form of infill development, or replacing existing housing with higher-density housing forms. This will only be possible to the extent that planning requirements enable such intensification to occur (discussed in Chapter 5).

F6.8 Councils can unlock land supply by enabling growth in areas where there is spare capacity 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.

R6.2 Councils should identify areas where there is existing infrastructure capacity and ensure that planning rules do not prevent intensification from occurring in these areas.

Infrastructure maintenance and asset management

Almost all of the 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. The collective infrastructure assets owned by New Zealand councils are valued at $76 billion and 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). 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, 2014c, p. i)

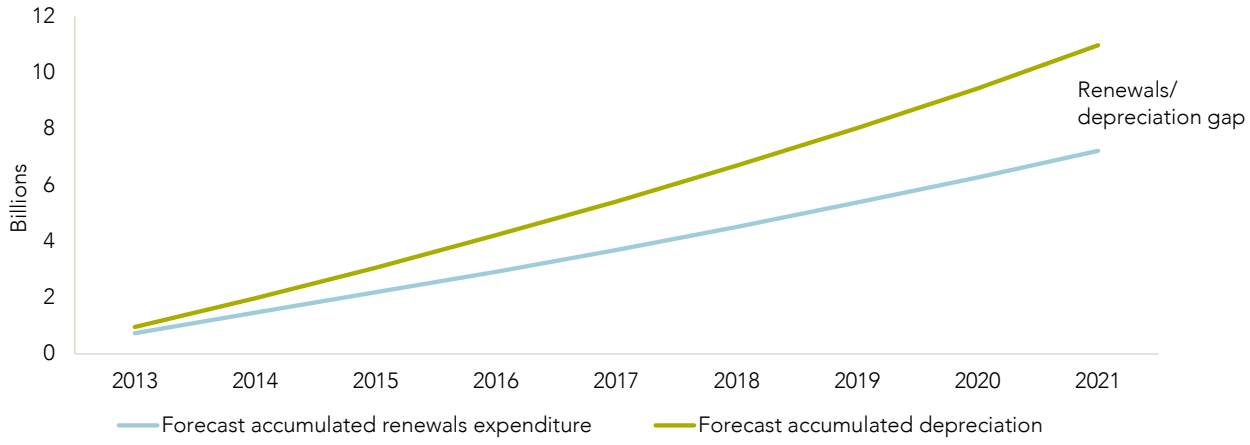
Upcoming costs associated with infrastructure assets are noted in planning documents for several high-growth councils. For example:

> 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. (QLDC, 2012b, p. 52)

The Office of the Auditor-General (OAG) has cautioned that councils need to prepare for funding infrastructure renewals. Their review of 2012–2022 LTPs 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 6.2 shows the renewals/depreciation gap for the high-growth territorial authorities that are the focus of this inquiry.

Figure 6.2 Forecast accumulated renewals expenditure and depreciation, high-growth territorial authorities



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 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. However, little evidence exists to support this. OAG also note that depreciation could be overestimated or prices associated with asset renewal work could change over time (OAG, 2014a).

F6.9 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.

Effective asset management is important for managing maintenance and renewals, but is also relevant for land supply for housing. 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 prerequisite 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 some existing urban areas can be more expensive than greenfield expansion (for example, 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 well 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).

F6.10 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 their asset management 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)

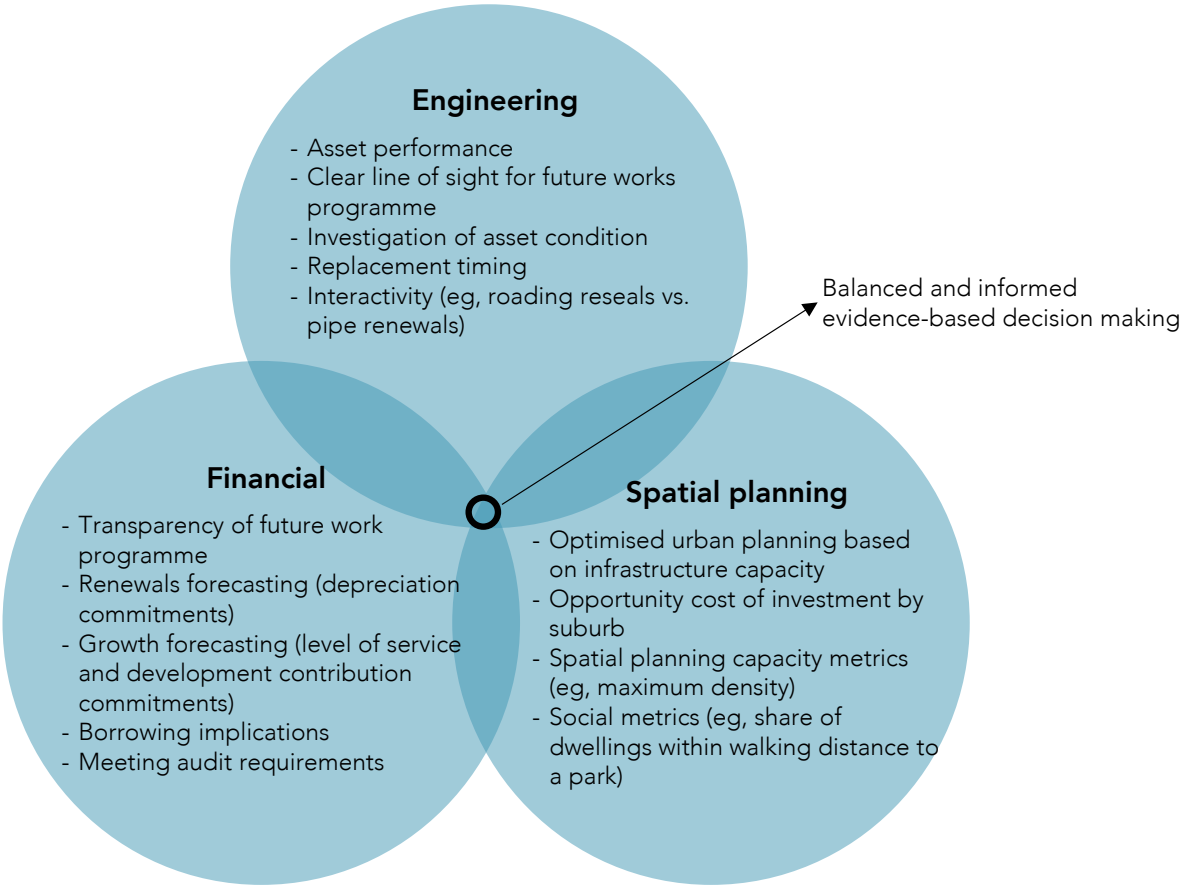
Infrastructure assets owned by the 10 high-growth councils were valued in June 2013 at more than $36 billion, and the operational costs for transport, roading, water supply and wastewater were over $2 billion (Statistics New Zealand, 2014b). Given the value of council assets, their maintenance costs, 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 asset management information system that integrates with the council's other management information systems and models. The council can then undertake extremely granular analysis (for example 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 annual 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 6.3).

Figure 6.3 Interdisciplinary benefits from asset management



Source: Adapted from Wellington City Council, 2014.

F6.11 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.

R6.3 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.

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 6.5).

Box 6.5 Existing initiatives to facilitate sharing good practice in asset management

The OAG have 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 buried underground). This means that visually inspecting transport infrastructure assets is relatively easy. Another reason is that NZTA requires councils to record specific information about roads in order 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 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 collaborative initiative by the road controlling authorities of 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).

Several initiatives to improve asset management are relatively recent, so it may be too soon to assess their effectiveness. However, the Commission is interested in whether the current approaches outlined in Box 6.5 are helping councils to better manage their infrastructure assets.

Q6.3 How effective are existing initiatives to facilitate standardisation of approaches to asset management, resource sharing, and dissemination of good practices?

Managing demand for infrastructure through user charges

Most councils are implementing measures to extend the life of their infrastructure assets, or to increase the number of dwellings that existing assets can accommodate:

> [T]he Council seeks to optimise the use of existing infrastructure to defer providing new infrastructure. (Hamilton City Council, sub. 70, p. 9)

> The council has determined that by managing the demand on its assets and by optimising the use of its existing assets some of the significant works in its forward programme may be postponed. (QLDC, 2012b, p. 52)

The case for user charging

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. Charging for services reduces growth in demand for the service, enabling councils to accommodate additional population growth with less investment in new infrastructure assets. User charges, however, need to be set carefully if they are to have the desired impacts on efficiency (Box 6.6).

Box 6.6 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, SMRC 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).

Amongst 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 utilised. 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.

The benefits of user charging

Introducing user charges can reduce the pressure on existing infrastructure assets thereby extending their lifespan and reducing maintenance costs. Reduction in demand can also enable councils to accommodate additional population growth without the need to invest in new infrastructure assets. For example, 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 around 10 000 people (assuming a daily water use of 177 litres per person[37]).

Tauranga City Council'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 6.7).

Box 6.7 Water metering in Tauranga

In the mid-1990s Tauranga City Council 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, there 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 per year, with the net present value of saving over a 30 year period estimated at $83 million.

Source: Sternberg & Bahrs, n.d.

[37] Heinrich (2009) conducted a survey of water use in 51 Auckland houses over the course of one year. The survey found that, on average, each person used 179 litres of water a day in summer and 175 litres in winter.

Although water metering has proven very beneficial in Tauranga, the approach to water metering and volumetric charges across New Zealand's high-growth councils is varied (Table 6.3). LGNZ notes that "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" (2014, p. 21). The approach to water funding is also influenced by community preferences that are often highly resistant to change, particularly relating to the use of volumetric metering (PwC & GHD, 2012).

Table 6.3 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% 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	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, 2014a; Tauranga City Council, 2013.

When to use user charging

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 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).

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)

F6.12 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. Also, it has potential to reduce the operating expenditure of councils and to delay or avoid capital investments in new infrastructure.

In the case of water, the LGA provides considerable flexibility in how local authorities recover the costs of providing water services. This lets communities and councils decide what degree of cross-subsidisation, if any, is appropriate (National Infrastructure Unit, 2011). The Local Government Infrastructure Efficiency Advisory Group (2013) also notes that, with the exception of roads, no legislative barriers exist to introducing user charges such as volumetric charges for water).

R6.4 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.

In the case of roads, councils are significantly 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 (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. This means the system is limited in being able 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" (Local Government Infrastructure Efficiency Advisory Group, 2013, p. 98). At the time of writing, the government had not publicly responded to this recommendation.

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. 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 around 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.

R6.5 Government should adopt the Local Government Infrastructure Advisory Group's recommendation to amend the Land Transport Management Act to allow pricing on existing roads where there is a business case that enables effective network optimisation.

6.7 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 RMA; the use of infrastructure standards; and processes to facilitate integration with private infrastructure providers.

Land designation for infrastructure

One way that delivery of infrastructure is facilitated is through provisions in section 8 of the Resource Management Act. These provisions 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). Designated areas ('designations') are effectively a site-specific zoning that enables works or a project to progress without the need for a 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 a 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 (MfE, 2010b, pp. 7–8).

- 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.

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 final 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.

Several submissions have raised concerns about the designation process. Auckland Transport notes that

> designations… are not sufficiently responsive to fast-track land development as they have a lengthy (often 5+ years) gestation period and then require additional time for land purchase… Adjustments to the transport planning process to allow the development of more streamlined procedures with flexibility for faster responses to changing circumstances should be investigated. (sub. 68, pp. 3–5)

Hamilton City Council raised similar concerns about the timeframes associated with legislative provisions for infrastructure:

> Councils are required to operate within the legislative provisions of the planning and development system which provide infrastructure for new residential growth areas. This may include resource consents or designations. Both processes can add cost and time to the process of providing infrastructure for growth areas… The Government should consider specific provisions to enhance the ability for Councils to efficiently and effectively deliver infrastructure for growth. This could include streamlined RMA processes for council infrastructure projects. (sub. 70, p. 13)

Wellington City Council raise concerns about the duration of designations:

> 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. (sub. 21, p. 9)

Wellington City Council recommends enacting "changes to the Public Works Act and RMA to allow longer term designations be provided for strategic infrastructure (3 waters, roading, etc) than the current 5 years" (sub. 21, p. 44).

Applications to extend designations must be lodged at least three months before the designation's expiry, and show that "substantial progress or effort has been made towards giving effect to the designation and is continuing to be made" (RMA, 198 (1) (b)). Requiring authorities may also apply for a designation longer than five years. However, concerns have been raised in the past that the default 5-year lapse period does not sufficiently reflect the benefits of long-term planning or the lead time needed to develop and fund significant pieces of infrastructure (MfE, 2010b).

Q6.4

- Is the designation process sufficiently responsive to allow major infrastructure projects that unlock new land for housing?
- Should the default duration of designations be changed?

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, Tauranga City Council's required standards for developing infrastructure and land are set out in *The Infrastructure Development Code* (Tauranga City Council, 2014c). The aim of standards documents is to ensure that infrastructure constructed by various organisations meets certain 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 6.4).

Table 6.4 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. This practice is often referred to as 'gold-plating'.
- Developers are primarily concerned with upfront construction costs, and are therefore incentivised to reduce these costs. Developers want to make sections attractive to prospective buyers so they 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:

> Requirements 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 6.8).

Box 6.8 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 suggest that larger parks are the most expensive to develop and that this is what they seek to recover through reserve contributions. Instead, developers sometimes seek to offload small, low-quality and poorly located parcels of land. 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.

R6.6 Councils' asset management systems should feed into decision making about optimal infrastructure standards. The data used to inform standard-setting should be shared openly with the development community.

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 rigidly maintained unchanging 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

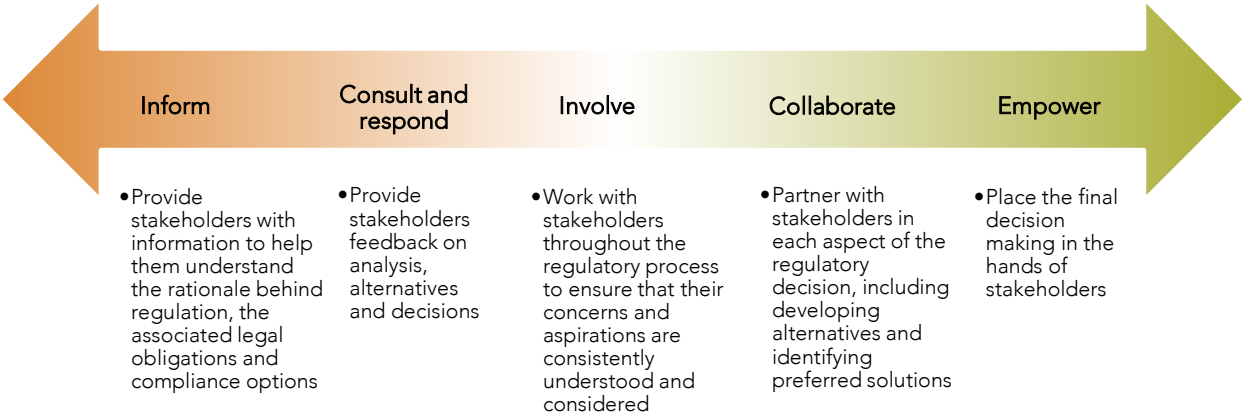
the yield of the development by about 10%). In the other instance, changes resulted in the unnecessary installation of water infrastructure. In this case, most of the costs associated with the new infrastructure requirements were ultimately passed on to the consumer.

R6.7 If councils determine that a good case to change infrastructure standards exists, then developments that already have consent should be exempt from the change. 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 others. A constructive two-way working relationship between councils and the development community is an important prerequisite in managing such tensions.

The Commission's inquiry *Regulatory institutions and practices* 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 6.4).

Figure 6.4 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.

The SmartGrowth Property Developers Forum is one initiative that appears to facilitate a constructive dialogue between developers and representatives from the SmartGrowth councils (Box 6.9).

Box 6.9 SmartGrowth Property Developers Forum

SmartGrowth is the spatial plan for the western Bay of Plenty subregion that is overseen by Tauranga City Council, 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 RPS 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.

The Commission is interested in hearing whether the SmartGrowth Property Developers Forum or similar initiatives in other regions are effective in helping to generate a constructive dialogue between councils and the development community.

Q6.5 Has the SmartGrowth Property Developers Forum, or similar initiatives in other regions, been effective in managing tensions between developers and councils?

Should infrastructure standards be more standardised?

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* is 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, Christchurch City Council 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[38] *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 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). 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 Tauranga City Council, Western Bay of Plenty District Council, Kāpiti Coast District Council, and Christchurch City Council (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 used by other councils 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).
- In the Canterbury region, Selwyn District Council (2012) and Waimakariri District Council (2014) have both based their engineering standards on the Christchurch City Council'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 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 is a good practice.

F6.13 A number of good practices enable consistency in council infrastructure standards set by councils. These include the widespread use of the *New Zealand Standard Land Development and Sub-Division Infrastructure* and varying approaches to regional consistency.

Regardless of the existing initiatives to generate consistency in infrastructure standards, the Commission is interested in whether there is a need for greater consistency.

Q6.6 Is there a case for greater consistency of infrastructure standards? If so, what types of infrastructure would benefit from greater consistency, and at what level (regional or central)?

[38] Standards New Zealand develop standards that set agreed specifications for products, processes, services and performance, usually in conjunction with Standards Australia.

Private infrastructure providers

Council infrastructure exists alongside infrastructure that is built and maintained by private utility companies. These organisations need to be included early in decisions about infrastructure roll-out and maintenance so as to enable compatibility. Chorus note in their submission that councils need to engage earlier with private infrastructure providers:

> Chorus is generally only contacted once consent has been granted and the developer wishes to progress with construction works. Often the costs associated with delivery of telecommunications have not been taken into account and can (particularly where constraints exist) cost significantly more than has been anticipated. (Chorus, sub. 73, p. 3)

Chorus (sub. 73, p. 4) notes that "The Auckland Infrastructure Providers Forum is beginning to provide a range of opportunities to partner with the Auckland Council, to work together and engage on regulatory change" (the name of this forum recently changed to the Auckland Infrastructure and Procurement Forum).

The Auckland Infrastructure and Procurement Forum connects infrastructure providers, advisors, constructors and suppliers to provide for better procurement and co-ordination of major construction projects. The forum meets quarterly and its membership includes NZTA, Vector, Watercare and Auckland Council. Chorus (sub. 73) recommends that other cities adopt a similar approach.

Q6.7

- What approaches do Councils take to facilitate coordination with infrastructure providers?
- Would there be benefit in establishing infrastructure forums modelled on the Auckland Infrastructure and Procurement Forum in other high growth cities?

6.8 Conclusion

The key issue facing councils as they plan infrastructure to meet population growth is how to optimise the provision of shovel-ready land in a way that some competitive tension is perceived 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 and 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. For example:

- 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 do not prevent intensification from occurring 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.

7 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 (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.
- 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. 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.
- Municipal utility districts (MUDs) are another infrastructure financing approach suggested by inquiry participants. The main advantages of the approach are that it allows infrastructure to be constructed at the initiative of a developer, and the cost of infrastructure is recovered over a long timeframe from those that benefit. However, the creation of multiple small and fragmented resident-managed utilities through MUDs is unlikely to be efficient.
- Development contributions are an important funding source for infrastructure. Despite recent legislative changes designed to improve the approach to development contributions, they remain a source of tension between councils and developers.
- Councils should include information in their development policies about the relationship between the size of dwellings and the cost of providing infrastructure services. If smaller dwellings impose lower costs on the infrastructure network, this should be reflected in lower charges.
- 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.
- Considerable scope exists for councils to increase their use of targeted rates. Like development contributions, targeted rates allow councils to charge the beneficiaries of new infrastructure for their cost, but they differ in that the upfront costs of growth-related infrastructure can be recouped over a longer timeframe.
- The LGA should be amended to allow developers to request that councils construct growth-enabling infrastructure, to be repaid through targeted rates on the properties that benefit from the infrastructure, and obliging councils to consider such requests.

7.1 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. However, 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 6, 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 through wider use of user charges.

In short, any decisions about how infrastructure is paid for should be framed in the context of ongoing effort to ensure that infrastructure is provided and managed in a disciplined, cost-effective and efficient manner. The introduction of more commercial disciplines around the provision of some network infrastructure may be beneficial in helping to drive this approach. One option in this regard is to separate infrastructure services into distinct organisations with a specific focus on infrastructure (council controlled organisations – CCOs). Another option is to develop regulatory settings for network infrastructure, such as water, that are similar to those that exist for telecommunications or electricity distribution. These two options are explored in Chapter 8.

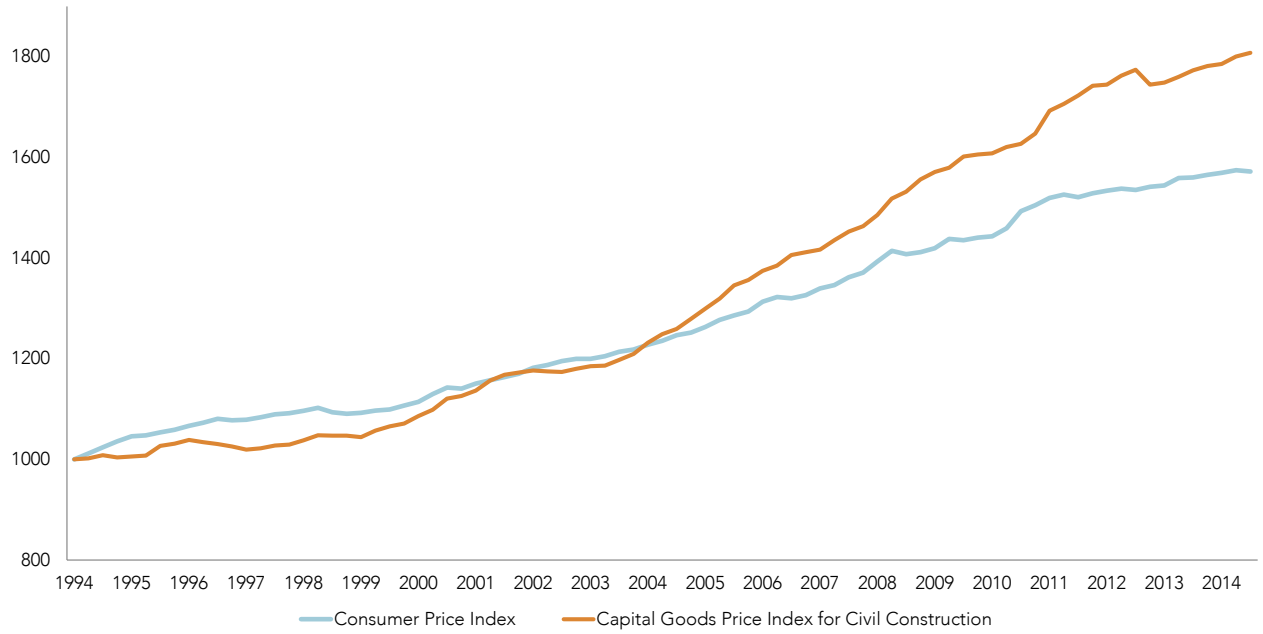
This chapter begins by setting out the challenges associated with paying for infrastructure in high-growth cities (section 7.2). It then examines how councils raise finance for growth-related infrastructure (section 7.3) and considers the sources of funds that councils use to pay for infrastructure (section 7.4). The chapter also examines some issues in relation to developer contributions, which are an important source of funds for growth infrastructure (section 7.5).

7.2 Challenges associated with paying for infrastructure

A consistent message from councils is that the 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 suitable for development, 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 7.1).

Figure 7.1 Capital goods price index for civil construction



Source: Statistics New Zealand, Capital Goods Price Index.

Note:

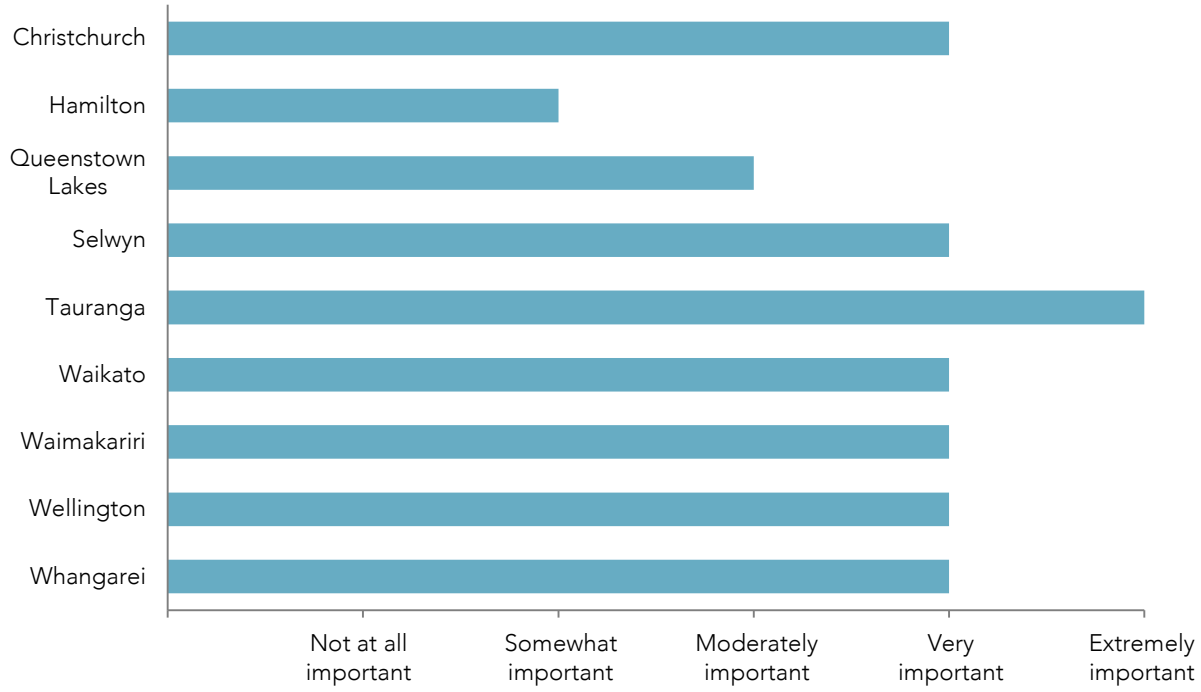
1. The capital goods price index estimates the overall price change in a range of physical assets. Civil construction includes mainly infrastructure-related construction such as roads, electrical works and pipelines.

Alongside concerns about escalating costs, councils also report that recovering the costs associated with growth-related infrastructure can be difficult. NZIER (2015) 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 7.2).

Figure 7.2 How important is the cost of new infrastructure in influencing the rate of residential development?



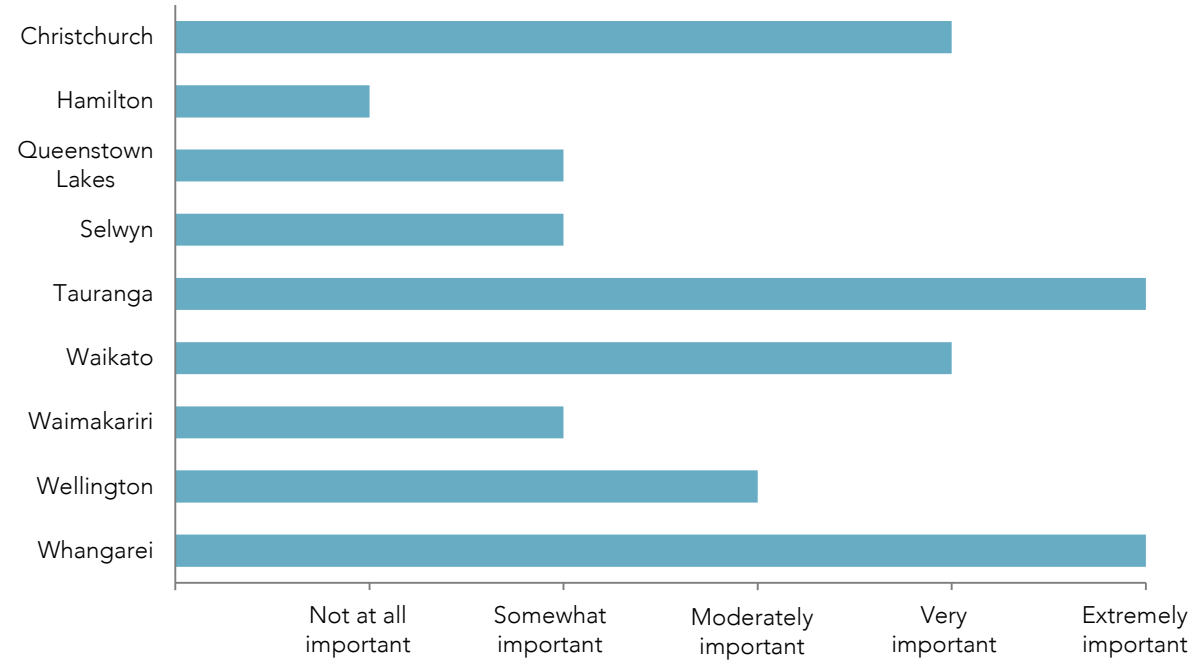
Source: NZIER, 2015.

Note:

1. This figure shows responses regarding the development of standalone dwellings. See NZIER (2015) 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 and Tauranga City both reported that budget constraints were extremely important, while Hamilton City reported that budget constraints were not at all important (Figure 7.3).

Figure 7.3 How important are city budget constraints in influencing the rate of residential development



Source: NZIER, 2015.

Note:

1. This figure shows responses regarding the development of standalone dwellings. See NZIER (2015) for responses regarding townhouses and apartments.

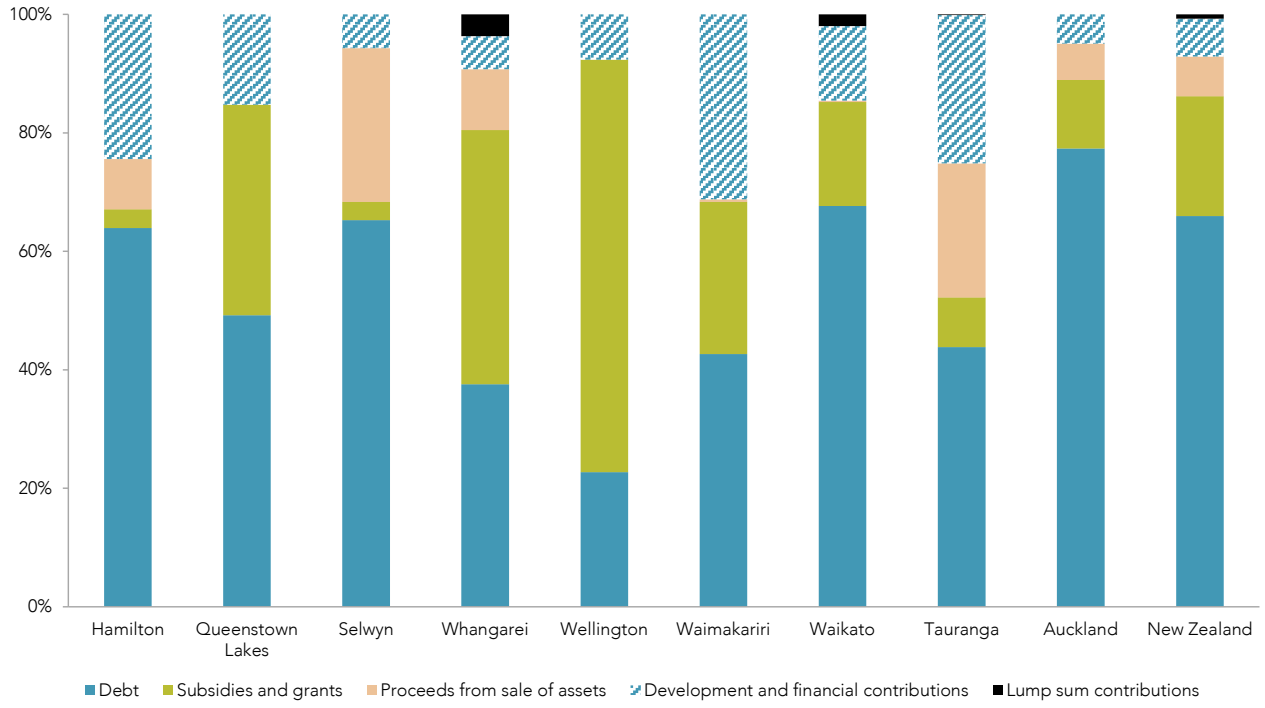
7.3 How do local authorities finance investment in infrastructure?

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 7.4 shows the sources of finance used by the growth councils for capital projects, as indicated in their long-term plans (LTP)[39]. 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 7.4 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 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 bears all the costs. Future

[39] Christchurch City Council was not included in this dataset as it was granted an exemption from producing a LTP until 2013, pursuant to the 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;
- 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 is about $10.4 billion, of which around 70% ($7.5 billion) sits with the 10 high-growth councils (Statistics New Zealand, 2014b).

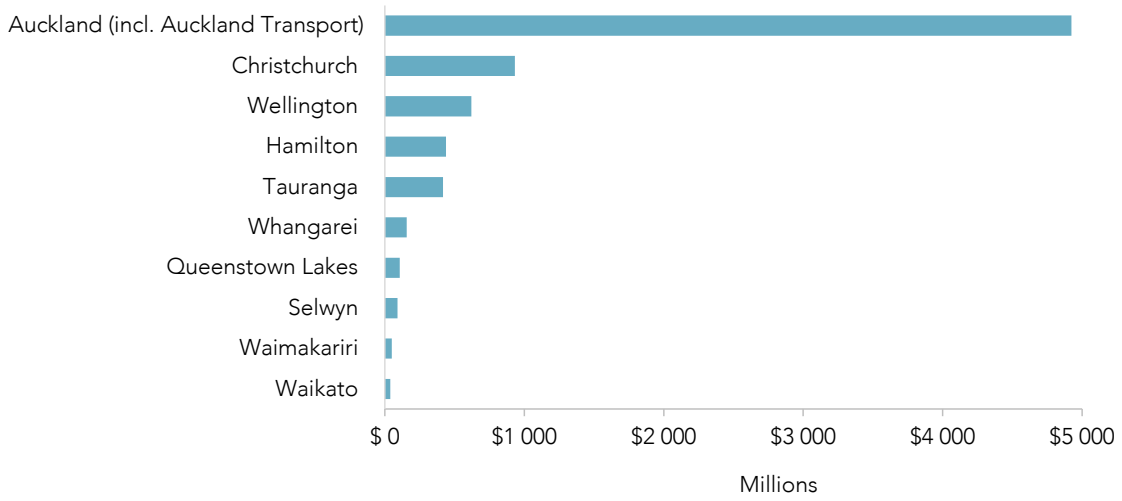
F7.1 Debt is an important source of finance for urban infrastructure in high-growth areas. It enables councils to deliver infrastructure when it is most needed and for infrastructure costs to be spread over the life of the asset. This means that those who benefit from the infrastructure contribute to 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, 2007).

Total debt levels vary significantly across the high-growth councils (Figure 7.5), but are much more consistent when measured by head of population (Figure 7.6).

Figure 7.5 Local authorities' total debt, 2013

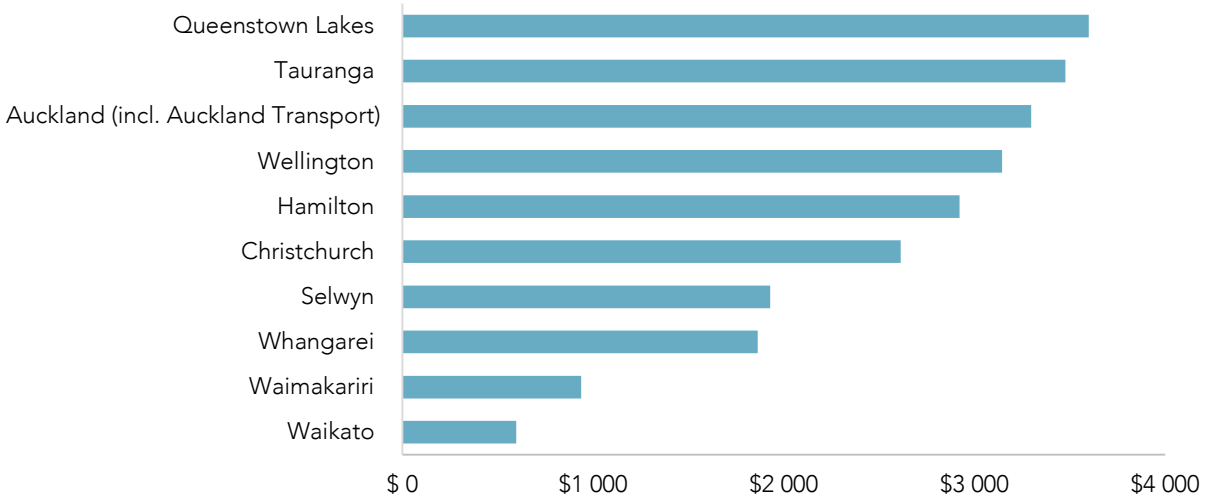


Source: Statistics New Zealand, 2014b.

Note:

1. Includes current and term debt for the year ending June 2013.

Figure 7.6 Total debt by head of population, 2013



Source: Statistics New Zealand, 2014b.

Councils' 2012 to 2022 LTPs showed 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 7.1).

Box 7.1 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, 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)

LGNZ 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 of the 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 (NZIER) (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 NZX-listed property sector. 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, there is no evidence of systemic problems regarding local authorities' use of debt.

F7.2 Recent assessments have not identified serious concerns regarding local authorities' 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 which achieves councils' objectives without compromising financial sustainability (Ernst & Young, 2012). These processes are discussed in Chapter 7.

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 CCO and is jointly owned by the central government (20% shareholding) and thirty councils (80% shareholding). Other than the central government, each shareholder must be a guarantor.

While local authorities can approach the financial markets directly, the large variation in their size are 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)

Regulatory limitations on the use of debt

Council debt levels are also moderated by regulations introduced under the LGA in 2014. The *Local Government (Financial Reporting and Prudence) Regulations 2014* 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 7.1). These 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 7.1 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
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 cash flow 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.

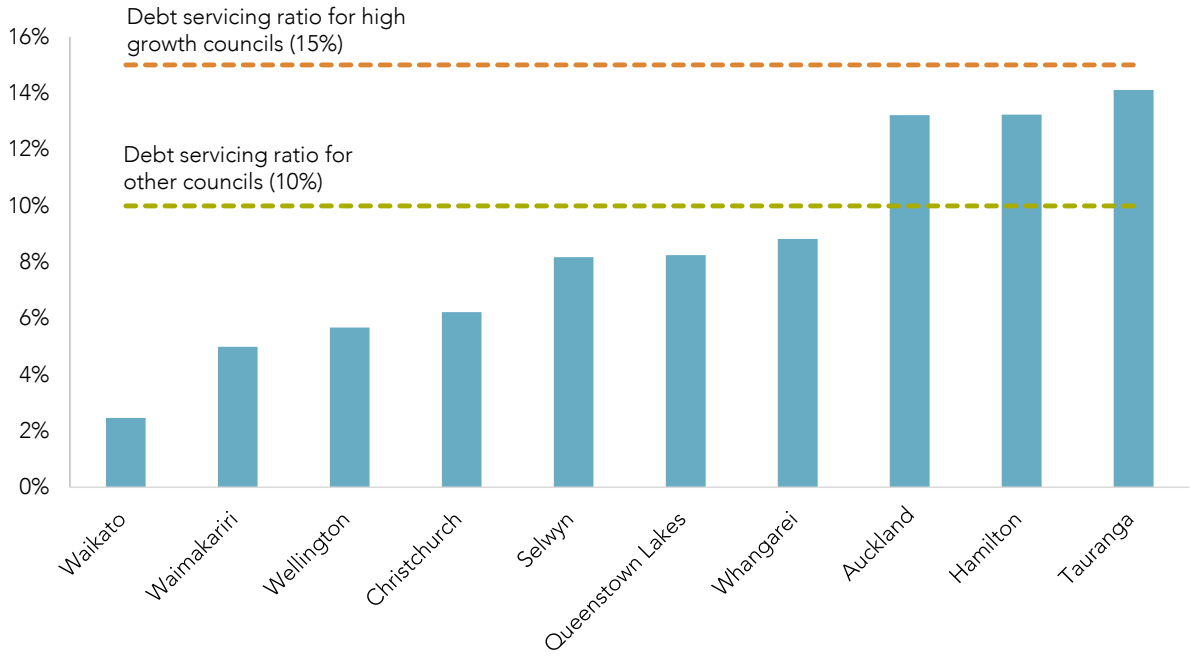
The Department of Internal Affairs (DIA) examines any local authority that fails to comply with the benchmarks. The Minister of Local Government may intervene in the affairs of an authority if non-compliance constitutes a "significant problem" that "will have actual or probable adverse consequences for 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 that are being taken to deal with it; to more severe 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?

Most of the councils that are the focus of this inquiry are well within the debt-servicing benchmark (Figure 7.7), with Tauranga (14.1%) and Hamilton and Auckland (both 13.2%) the only authorities where interest expenditure exceeded 10% of revenue in 2013.

Figure 7.7 Local authorities' interest expenditure as a share of total revenue, 2013



Source: Statistics New Zealand, Local Authority Financial Statistics, 2014.

Note:

1. 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.

Local Government New Zealand (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] The 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)

Overall assessment on debt financing

Good reasons exist for councils to use debt to finance infrastructure needed to support growth, 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 prudence and reporting regulations. Financing options for these councils are more limited; however, inquiry participants have not suggested that the debt-servicing benchmarks are unreasonable. In saying this, 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 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, 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, monitoring and evaluation 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 prudence regulations were encouraging a "less is better" mentality regarding debt financing.

R7.1 Evaluation of the financial prudence and reporting regulations should monitor 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.

Alternative approaches to debt financing

As discussed above, debt is an important source of finance for infrastructure projects. Ratepayers tend to resist debt that will be recovered from general rates. A number of alternative ways of repaying debt could be considered. Two particular mechanisms of financing new infrastructure through debt were regularly raised with the Commission: tax increment financing (TIF) and municipal utility districts (MUDs).

Tax Increment Financing

SmartGrowth (sub. 27), Wellington City Council (sub. 21), 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 (Box 7.2) mean that a larger number of ratepayers does not by itself create additional revenue. 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 (as noted in s 23 of the Local Government (Rating) Act 2002). Where an infrastructure investment increases the rateable value of newly serviced land, this only causes the total rating burden to be reallocated 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).

Box 7.2 How rates are set

In setting a LTP (see Chapter 3), a council also sets a revenue and financing policy (RFP). This sets out how and why funding sources are used to fund the capital and operating costs of activities in the LTP.

The RFP must state the council's policies on funding expenditure from different revenue sources, including general rates (including the choice of valuation basis, differential rates, and whether or not uniform annual general charges (UAGC) are used), targeted rates, development contributions, financial contributions, and so on.

For each financial year, the council sets an annual plan (in the year an LTP is adopted, this is the annual plan). The annual plan must contain a funding impact statement (FIS). The FIS must describe in detail precisely how general and targeted rates, and UAGCs, are constructed, including differentials. The FIS does not need to include the actual level of the rate.

The level of rates is set by council resolution (and cannot be delegated). The rates resolution must apply for no more than one financial year, and must be consistent with the FIS and the RFP. The resolution must also specify due dates for paying rates and any penalties.

Section 100 of the LGA requires local authorities to "ensure that each year's projected operating revenues are set at a level sufficient to meet that year's projected operating expenses". A council can only deviate from this where it resolves that it is financially prudent to do so.

These processes, outlined in the Local Government Act 2002 and Local Government (Rating) Act 2002, ensure that rates are set in a predictable and transparent manner, and are derived from each council's expenditure plans, and RFP.

Source: SOLGM & LGNZ, 2013.

In some countries there have been issues with actual revenue falling short of forecasts. In Australia, concerns have been raised about whether private financing would be available on reasonable terms, given the lack of experience with TIF there, and the risk that forecast revenue will not materialise (Ernst & Young, 2012). Because there is no certainty about additional revenue that could be hypothecated to repay infrastructure bonds, there appears little prospect that there would be investors willing to support TIF in New Zealand.

Q7.1 Is it correct that 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?

Municipal Utility Districts

MUDs were explored by Bassett & 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.[40] 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 & Malpass cited a number of benefits to 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.

Dale Smith cautions that

> …developers in NZ would be unwise to try to use MUD infrastructure funding (if made available) without first having control over the other variables that make a MUD successful as to do so would increase their risk. That is, the other variables that the commission mentions like development levies, council process that add time and cost, like inflated raw land prices due to land banking etc., all issues that MUDs do not have. (sub. 31, p. 19)

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 & 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).

Potential for MUDs in New Zealand?

MUDs and TIF are both effectively mechanisms that allow the cost of infrastructure to be financed with long-term debt, while passing the obligation to repay that debt on to the future homeowner. They differ in terms

[40] Other names include special service districts, special purpose districts, limited purpose districts, municipal development districts, and special development districts.

of who initiates the scheme (the developer or the council) and who manages the infrastructure in the interim (residents or the council).

On the face of it, a proliferation of small, resident-managed water districts seems to have few advantages from an efficiency perspective. In its submission, Water New Zealand already expressed concern that

> [h]aving 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.

However, 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. However, much of these benefits could be captured through use of targeted rates (discussed in section 7.5) – a funding tool that is already available to councils.

7.4 How do local authorities fund infrastructure?

Councils can access a variety of sources of operational and capital revenue, to fund infrastructure services (Figure 7.8). 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 2013 was just over $11 billion. This included around $1.5 billion in revenue generated by valuation changes and other non-operating income.

Operational revenue

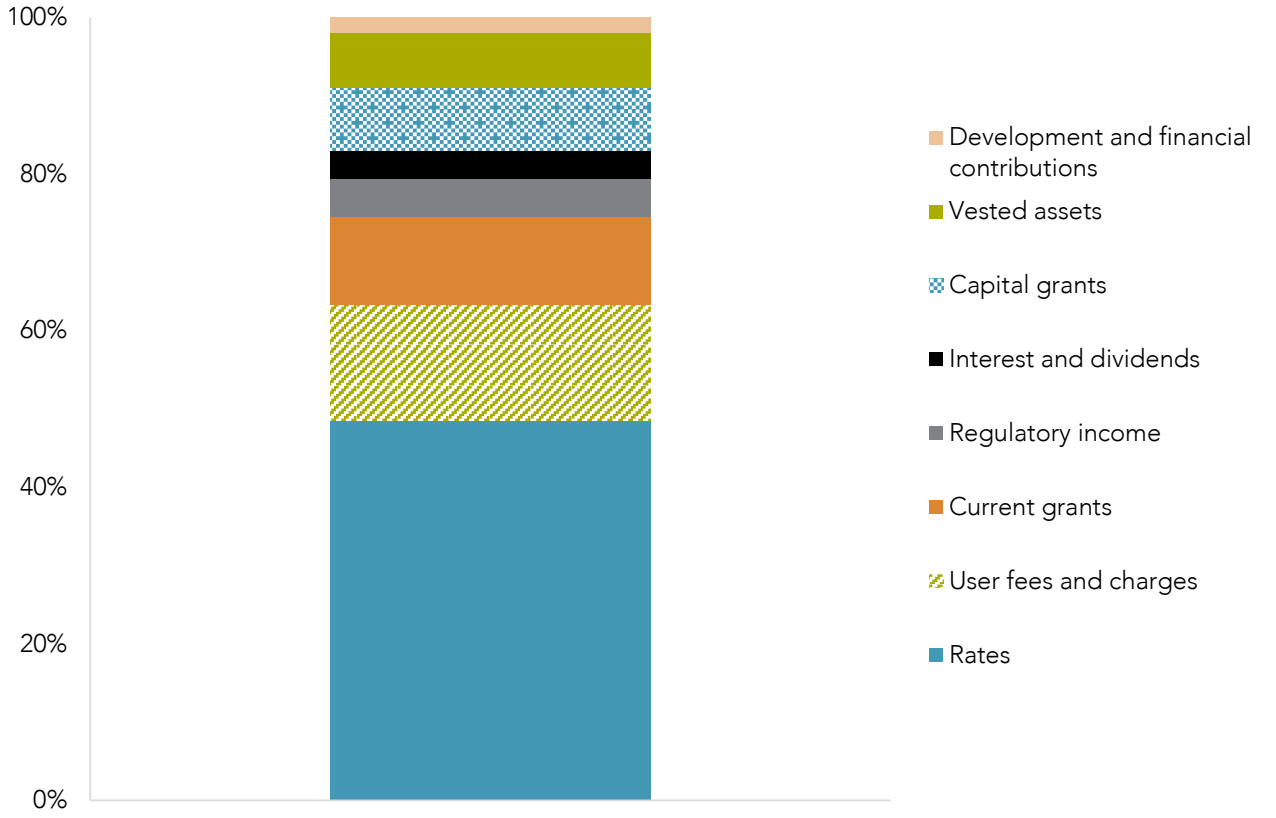
- *Rates* – General rates are levied based on the value of property and are used for services that benefit the local community. Local authorities can also employ other rating tools, including uniform annual general charges and targeted rates (Shand, 2007). Rates are the largest source of council income, generating $4.6 billion in 2013 (Statistics New Zealand, 2014b).
- *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 transferre d 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 reflect the impact of a development on infrastructure use. These contributions are discussed later in the chapter.

- *Capital grants* – Funding from central government to support capital projects.

Figure 7.8 Summary of local government revenue sources, 2013



Source: Statistics New Zealand Local Government Funding Data 2013.

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 and financial contributions.

7.5 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 (Box 7.3).

Box 7.3 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.

Critics and supporters

Critics of development and financial contributions argue that they front-load infrastructure costs onto the purchase price of new homes and exacerbate housing affordability problems. Some participants have argued that the cost of development contributions has also been incorporated into the price of existing dwellings, resulting in higher prices for all home-buyers:

> [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)

One submitter suggested that development contributions create intergenerational inequity by loading additional costs onto the current generation of home-buyers:

> There is a significant inter-generational social justice issue involved here as well – we have paid our way as we go with rates, for generations. Imposing upfront exactions "to pay for infrastructure for growth" increases the price of *ALL* property, not just the price of the properties in new developments against which the exactions have been made… Changing the rules of the game in this way morally requires some form of rebalancing. (Phil Hayward, sub. 41, p. 42)

Advocates of infrastructure charges note that they enable the provision of important infrastructure to support growth. By shifting part of the costs associated with growth to those that are creating growth, infrastructure charges may also increase community acceptance of growth (Burge, Nelson & Matthews, 2007).

Recent reviews and legislative changes

The Commission's review of infrastructure charges in its *Housing affordability* inquiry (2012) 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, 2012, p. 126).

However, the Commission also identified scope to improve the processes that councils use to set and administer infrastructure charges, so as to reduce the cost of new residential developments and improve the quality of decision making around infrastructure funding. The Government subsequently instructed the DIA to review development contributions as part of the "Better Local Government" initiative (DIA, 2013c). The review informed changes to development contributions that were included in the Local Government Act 2002 Amendment Act 2014.

The Amendment Act (s 179AA) introduced a new purpose statement, which explains that the purpose of development contributions is to:

> [e]nable territorial authorities to recover from those persons undertaking development a fair, equitable and proportionate portion of the costs of capital expenditure necessary to service growth.

Principles setting out when development contributions can be required, how they should be calculated and when they should be used were introduced to accompany the new purpose statement. The objectives that the changes sought to achieve included:

- greater direction about what councils can use development contributions for and how they should be applied;
- focusing development contributions toward infrastructure required by development, and avoiding charges for infrastructure that is not directly needed to service the development;
- introducing a process that allows developers who believe they are being charged incorrectly to challenge the charge through an independent commissioner; and
- 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 (for example subs. 10 and 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 DC's 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)

Other inquiry participants raised concerns about development contributions. Most concerns are similar to those raised with the Commission in 2011 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)
>
> In most areas development contributions have increased by more than 300% in the last 10 years. (Mike Greer Homes, sub. 48, p. 4)
>
> 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)
>
> Developers are not happy with the financial contributions scheme, its payment methodology and explanations of where and when the money is used. (Lindsay, 2015)

One of the more significant aspects of the LGA amendments was the introduction of a process that enables development contributions to be challenged if they are seen as excessive (Box 7.4).

Box 7.4 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 of the 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; or other barriers might exist that deter developers from lodging a formal objection.

Q7.2 Are there any barriers that are preventing developers from challenging development contributions?

Development contributions should reflect costs

Development contributions will only encourage efficient urban growth patterns if they reflect the costs of different types of development. As discussed in the previous chapter, more sophisticated asset management programmes can help councils to build a better understanding of these costs.

One of the changes introduced as part of the 2014 LGA Amendment Act is a set of new development contributions principles (Box 7.5).

Box 7.5 Development contributions principles

Section 197AB of the LGA sets out a new set of principles that provide direction to councils about what development contributions can be used for and how they should be applied:

(a) 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

(b) 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

(c) 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

(d) 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

(e) territorial authorities should make sufficient information available to demonstrate what development contributions are being used for and why they are being used

(f) 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

(g) 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 suggest 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). Councils that impose development contributions on the basis of HUEs should publish information about the relationship between dwelling floor area and the cost of providing infrastructure services. This would be consistent with the principle that sufficient information should be available to demonstrate what development contributions are being used for and why. It would also help to ensure that development contributions do not unduly restrict smaller or higher density dwellings.

R7.2 Councils should include information in their development contributions policy about the relationship between dwelling floor area and the cost of providing infrastructure services. If smaller dwellings impose lower costs on the infrastructure network, this should be reflected in lower charges.

Leading practices in the use of development contributions

While development contributions remain a source of tension between councils and developers, it is too early to assess whether the Local Government Act Amendment Act 2014 will address the underlying issues that lead to these tensions. The Commission has, however, 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 Buildings 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,[41] 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, 2014a, p. 16)

[41] 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.

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 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)

F7.3 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

The Local Government (Rating) Act 2002 allows councils to set targeted rates to fund activities that benefit identifiable ratepayers. Like development contributions, targeted rates allow councils to charge the beneficiaries of new infrastructure for their cost, but they differ in that the upfront costs of growth-related infrastructure can be recouped over a longer timeframe.

A number of councils use targeted rates to fund various services or infrastructure investments (Box 7.6).

Box 7.6 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 the wider roads, and more numerous gardens, reserves and streetlights in the area.

Wellington City Council maintains a number of targeted rates, including:

- properties that are connected to the water, wastewater or stormwater networks; and
- the maintenance of 41 private driveways in Tawa (a legacy from the Tawa Borough Council).

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;
- 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.

Targeted rates sometimes have problems. For many years, owners of properties on the Weiti River side of Whangaparaoa Peninsula that only had boat access agitated to have a road constructed. The road was eventually funded via a targeted rates scheme, but construction costs ballooned. This meant that instead of paying $3 000 a year over 10 years, ratepayers now have to pay $10 450 a year over 19 years. Ratepayers can alternatively make a lump sum payment of around $115 000. Locals blame changing regulatory requirements from the old Rodney District Council and Auckland Regional Council for the cost blowout.

Source: Thompson, 2012.

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 New Zealand Housing Federation submitted that:

> 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)

The Commission sees significant potential for targeted rates to be used more frequently to fund growth-enabling infrastructure, so that the cost is borne by the end beneficiaries of the investment, and able to be spread over a long timeframe.

F7.4 Considerable scope exists for councils to increase their use of targeted rates in order to recoup the costs of growth-enabling infrastructure over a longer timeframe.

Targeted rates are similar to TIF and MUDs in that they allow the cost of infrastructure investments to be funded by council debt, and repaid by homeowners over a longer period of time, rather than the developer

or council paying for the infrastructure upfront. However, unlike MUDs, they cannot be initiated by a developer without the agreement of the council.

Chapter 6 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. The Commission considers that parallel provisions should be enacted that would allow a developer to request the construction of infrastructure by the council, and the imposition of targeted rates on the land in question by the council to recover the costs of the infrastructure construction.

R7.3 The Local Government Act should be amended to make clear that developers may formally request that councils construct growth-enabling infrastructure, to be repaid through targeted rates on the properties that benefit from the infrastructure connections, and obliging Councils to consider such requests.

7.6 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 (Chapter 6). 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.

Alternatives to debt financing that are commonly used in other countries such as TIFs and MUDs, appear to be poorly suited to the New Zealand context. The benefits associated with these funding approaches could largely be captured through greater use of targeted rates.

Development contributions are a particularly important source of funds for infrastructure. Despite recent changes to the LGA that sought to clarify the purpose of development contributions and introduced limits on the types of infrastructure they can be used to fund, development contributions remain a source of tension between developers and councils. However, development contributions are the primary way that councils recover growth-related infrastructure. This means that any further limits on development contributions runs the risk of negatively affecting council incentives regarding the provision of growth-related infrastructure.

Councils should ensure that their development contributions policies are aligned with new principles introduced in the 2014 Local Government Act Amendment Act 2014 so as to encourage efficient choices about the location and type of developments. Policies that enable flexibility around the timing that development contributions are charged, and transparent review of the method by which they are set, have been identified as leading practices.

8 Governance of transport and water infrastructure

Key points

- A feature of the governance arrangements for transport infrastructure is the significant role that central government plays, through the New Zealand Transport Agency (NZTA), in both a planning and funding capacity. NZTA is also responsible for funding and managing the state highway network so has a strong interest in how urban growth affects the demands on the state highway network. In some instances, this can come into conflict with the development of land for housing.
- Including a greater focus in NZTA's investment priorities on how transport infrastructure can support land supply for housing might help to free up land supply in high-growth cities. Shifting the priorities for land transport funding could have implications for existing transport priorities.
- Because councils or Council Controlled Organisations (CCOs) are the only providers of water services in New Zealand cities, they are monopoly providers in their area. 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 commercial with public and environmental objectives, and can include regulation over access and the price of services. Even so, urban water systems have "merit good" aspects and wastewater and stormwater management has "public good" aspects that need to be considered in funding arrangements.
- Many councils may be too small to exploit economies of scale in water supply and wastewater treatment. The Commission is seeking feedback about whether taking advantage of scale economies in the delivery of water services could improve the capacity of councils to deliver water services more efficiently to support urban growth.
- Serious weaknesses have been identified in the water sector's regulatory and institutional framework. Addressing these weaknesses would improve the performance of the sector in general and could contribute to urban growth through improving the way water infrastructure is delivered. The Commission is interested in further feedback from inquiry participants about the potential for the reform of the regulatory and institutional framework for water to support urban growth.
- The accountability arrangements for Auckland's CCOs (Auckland Transport and Watercare) 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 CCO statements of intent relating to the efficient rollout of new infrastructure to support an increased supply of new dwellings.
- Watercare imposes an Infrastructure Growth Charge (IGC) on all new developments connecting to Watercare's network. The IGC is a flat charge, which is applied across Auckland. This is likely to distort development costs, reduce transparency over how the IGC is being used, and discourage the development of dwellings with lower infrastructure costs. The IGC should be changed to better reflect local factors that materially affect the cost of installing new infrastructure.
- 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. The Commission is interested in receiving further information about whether the existing checks and balances that apply to Watercare are sufficient.

This chapter begins by mapping the governance arrangements for transport and water infrastructure (sections 8.1 and 8.2). The chapter then examines the recent trend toward delegating responsibility for transport and water infrastructure to CCOs (section 8.3). Section 8.4 responds to some specific issues around how Watercare, Auckland Council's CCO for water, recovers the costs associated with urban growth.

8.1 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 6, 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. NZTA then develops a 3-year National 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 Transport Plans. Regional 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 8.1 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 regional and territorial authority land transport functions.

Table 8.1 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 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)	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 3, the planning requirements under the Land Transport Management Act 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, the Commission has recommended developing a new planning avenue for larger

cities that combines transport planning with longer-term infrastructure strategies and the development of land use rules.

Some inquiry participants also identified issues relating to the coordination between local government and NZTA.

Coordination between councils and 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, $3.4 billion of funding from the National Land Transport Fund will be invested in local roads (Ministry of Transport, 2014). As shown in Figure 7.4 and Figure 7.8, this is a significant share of total local government funding and amounts to around 50% of the funding for local roads.

In addition to its involvement in local transport infrastructure, 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 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). Inquiry participants also commented that the NZTA model brings discipline and a degree of national consistency to transport infrastructure planning and management.

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 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 NZTA in spatial planning is a good practice. However, despite NZTA's involvement in the SmartGrowth strategy for the greater-Tauranga area, both Tauranga City and Western Bay of Plenty District 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. (Tauranga City Council, sub. 47, p. 21)

These concerns appear to stem primarily from contrasting sets of incentives. 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. As such, the GPS underpins NZTA's investment decisions.

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. (Government Policy Statement on Land Transport, 2014, p. 17)

But, as noted in 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 NZTA responds faithfully to the priorities that are set for them in the GPS. But, in some instances this comes into conflict with the development of land for housing. Box 8.1 provides one example of how this plays out in practice.

Box 8.1 Construction standards for the Papamoa East interchange

Tauranga City Council has recently rezoned over 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.

In order 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 NZTA and local governments.

From 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, 2015).

To protect the travel time savings and safety of the motorway, 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, Tauranga City Council has suggested that a lower-specified interchange (ie, a roundabout) could be built at significantly lower cost. Its submission suggests that the standards set by NZTA are unnecessarily high:

> A further issue that TCC [Tauranga City Council] faces are 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. (Tauranga City Council, sub. 47, pp. 21–22)

The Commission understands that NZTA and Tauranga City Council are working to resolve issues relating to access to Papamoa East, but while 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.

F8.1 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 NZTA'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.

Do other transport governance issues exist?

Notwithstanding the issues raised above, submissions to this inquiry contained little in the way of comment or criticism about the governance arrangements for transport. The Commission is interested in further comment, particularly from councils and developers, about potential improvements that could be made to the governance arrangements for transport infrastructure.

Q8.1 What other issues, if any, relating to the governance of transport infrastructure should the Commission be aware of?

8.2 Water infrastructure

The governance arrangements for water are much more devolved than they are for transport infrastructure. As outlined in Chapter 2, local government's involvement in the provision of "water works and sewers" is well documented (Box 2.2). 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 8.2).

Box 8.2 History of water supply in the Wellington region

> Since Wellington had been founded water had been "collected from house-tops into barrels and iron tanks, and also 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[ed] 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.

Today, water infrastructure – which includes drinking or potable water supply, wastewater treatment and disposal and stormwater management – is the responsibility of local government. Most councils deliver water infrastructure through in-house business units and fund it through a mix of rates and development contributions. 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.

Local Government New Zealand (LGNZ) notes that no one central government agency has a lead role in water policy but that "Treasury (through the National Infrastructure Unit), Department of Internal Affairs, Ministry for the Environment, Ministry for Primary Industries, Office of the Auditor-General (OAG), and others all have an interest in how the sector performs" (LGNZ, 2014, p. 5). Central government does not make a significant contribution to urban water infrastructure in high-growth areas. However the Ministry of Health manages the Drinking-water Assistance Programme, which includes subsidies to help small rural communities to establish or improve their drinking water supplies.

Wellington City Council submitted to the inquiry that there should be "a contestable national fund to enable public/private partnerships and/or local and central government delivery of 3 waters strategic infrastructure (wastewater, stormwater, water) and affordable housing" (sub. 21, p. 15). Many other submissions suggested that central government should play a more proactive role in funding infrastructure in high-growth areas, without making specific reference to water infrastructure (subs. 25, 27, 39, 40, 42, 45, 47, and 54).

Local public provision

As set out in Chapter 6, 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 8.3 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 8.3 Urban water systems

Urban water systems exhibit strong natural monopoly characteristics.

- There are high capital costs associated with 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 UK, compared to 5% for electricity and 2.5% for gas. As a result, water tends to be sourced and treated/disposed of locally.

There are a number of characteristics that have led to urban water systems being developed under public provision.

- There are few substitutes for urban water services.
- 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 individuals' ability to pay.
- Wastewater management has "public good" characteristics in that, once it is 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 has been 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.

Unregulated, privately run, natural monopolies would 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.

Source: Gee, 2004; Hanemann, 2006; Manso, 2007; OECD, 2009; Wichelns & Qadir, 2015.

Ideally, water infrastructure should be affordable and efficient, ensure security of supply over the short-term and long-term, to 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.

While unregulated privately run natural monopolies are unlikely to meet these requirements, local public monopoly provision has its own well-recognised problems. The combination of market power and public ownership can lead 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 the way in which individual councils have provided water services in the past. There may be few incentives 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 to encourage conservation and efficient use of the resource, and incentives to protect water sources may be weak.
- *Unclear conditions of supply*. The relationship between customers and the local authority can often be administrative rather than one based on explicit terms and conditions between the parties (Water New Zealand, 2011).
- *Weak incentives to minimise supply costs*. This 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 costs 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.
- *Financial problems*. This can be caused by ageing infrastructure that may have been poorly maintained, combined with the higher costs from increasing environmental and health standards. Financial problems and ageing infrastructure can also be the result of poor pricing or funding decisions in the past that did not allow for sustainable investment in maintaining the infrastructure or building future capacity.

- *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).
- *Failures of public management*. This can result from a lack of financial or technical capability, an inability to raise customer charges for water to the level required to implement cost recovery, and susceptibility to political interference in the management of the water system, including pricing decisions (see next point).
- *Non-transparent, inefficient pricing*. Monopolies entail the risk that prices will exceed the price of supply. For example, Councils might over-charge for water services, particularly if their other revenue sources are under pressure. They could "double dip", by seeking to earn a return from their customers on assets that developers have gifted to councils. Or they might charge excessive prices for access to trunk infrastructure. Alternatively, public provision could lead to prices that do not meet the costs of supply, resulting in cross-subsidisation or under-investment, in some cases due to politicisation of pricing. According to Water New Zealand (2011, p. 14), "council decisions are dominated by the political imperative to keep rates down". If a perception exists that the costs of growth may not be fully recovered through development contributions, then councils will face an incentive to under-supply growth-related infrastructure and defer maintenance of long-lived assets. Either approach could reduce the viability of some new urban developments.

Many of these issues are found in the provision of water and wastewater treatment services by local public monopolies. They have led to reforms of urban water systems in other countries (Manso, 2007). Two main characteristics of such reforms have been to:

- *Exploit economies of scale*. This is achieved by consolidating provision across larger geographic areas.
- *Introduce commercial disciplines.* This can be done while retaining public ownership of infrastructure – through mechanisms such as increased autonomy of management entities, the unbundling of networks (ie, a separation of water production from distribution, and wastewater collection from treatments), greater involvement of the private sector in specific aspects of the business (eg, through service contracts for management), and a shift from cross-subsidisation to cost recovery based on principles of network pricing.

Commercial disciplines are often accompanied by:

- *Greater clarity around the regulatory and institutional framework*. This includes an explicit balancing of public and environmental objectives, the use of regulation to ensure access to services and quality, and price regulation.

The question of whether there are opportunities to take advantage of economies of scale in New Zealand, and whether improvements in the regulatory and institutional framework could improve the capacity of councils to deliver water and wastewater services more efficiently to support urban growth, are discussed below. This chapter also discusses whether these measures, especially attempts to fully cost-recover water services, can ensure an optimal supply of water infrastructure in growing urban areas.

Taking advantage of economies of scale

While Watercare supplies 1.4 million customers in Auckland, 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). This suggests that there are unexploited opportunities to reduce water costs.

Water New Zealand (whose members include territorial local authorities, CCOs, water and wastewater service providers, major consultancies and Crown and other research institutes) summarises management of the sector as follows:

> 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 Local Government Infrastructure Advisory Group (2013) identified three main options for achieving the benefits of scale and scope:

- shared services with other councils or, where relevant, other agencies (eg, central government, Iwi or non-governmental organisations);
- regional delivery; or
- council amalgamation.

The Advisory Group recommended that councils should consider consolidating delivery of water and treatment of wastewater across larger geographic areas, with the management and implementation of such delivery at arm's length from political decisions, through either a jointly owned or regional CCO, or a business unit run on economically efficient lines. This approach has parallels with the approach to water infrastructure in the Wellington area, where responsibility for three waters services has been delegated to a CCO that is jointly owned by five local authorities in the Wellington region (although assets are still owned by the authorities separately).

However, the OECD (2009) has questioned whether economies of scale are important in all water services. Importantly, the optimal scale for drinking water and complex wastewater treatment may be different from the one that best fits stormwater management:

> It may therefore be relevant to unbundle and recombine water services in ways that make optimal use of scale and scope effects. (OECD, 2009, p. 109)

The OECD also notes that economies of scale only accrue to a certain point, after which diseconomies may emerge.

Q8.2 Are there significant scale economies in the provision of water infrastructure that could improve the efficiency of provision that are not being realised in New Zealand's high-growth cities?

Improving the regulatory and institutional framework

A number of commentators have identified weaknesses in the water sector's regulatory and institutional framework that could be improved.

In the 2011 National Infrastructure Plan, the National Infrastructure Unit concluded that:

> 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:

- there are 17 Acts that relate to water management, and "many other out-dated Acts and Regulations… [that] impinge on water policy and management";
- a complex legal framework that imposes obligations on councils (that differ between water and sewerage), complicates alternative service provision options, and is poorly understood;
- the absence of a Water Act; and
- compliance with drinking water standards that is voluntary (except that the Fair Trading Act or Consumer Guarantee Act may impose a "fitness for purpose" test).

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.

Q8.3 Would greater integration and clarity within the statutory and legal frameworks for water supply, wastewater and stormwater assist councils in providing the water infrastructure necessary to support urban growth?

Economic regulation

If the provision of water and wastewater services is to be subject to commercial imperatives in an effort to make the provision of services both more efficient and more responsive to demand, regulation may be required to ensure sufficient investment for future capacity and that water prices appropriately reflect the cost of provision. Regulation may also be needed to ensure quality standards.

In Australia, all states have independent economic regulators of the water sector; water utilities are licensed; and there are independent dispute resolution processes. Volumetric charging for water is widespread and well-established in Australia and there are a variety of approaches to price regulation, including regulators setting prices, price monitoring, and local government utilities setting their own prices under guidelines set by state governments.

There is some debate about the role of economic regulation. For example, the Australian Productivity Commission (APC) has suggested that regulators should move away from price regulation towards price monitoring, and rely more on public owners, operating as active shareholders, to manage issues such as those identified above.

However, this recommendation was based on the premise that governments would make significant improvements to their governance frameworks, including:

- clarifying and prioritising objectives;
- clarifying the roles and responsibilities of governments, utilities, regulators and consumers;
- the legal incorporation of any utilities not embedded within local governments;
- a charter between the government and utilities, to guide pricing, procurement of supply and financial performance;
- public reporting of performance against the charter;
- periodic public review of performance against the charter, with sanctions for poor performance (APC, 2011b).

The Australian experience indicates that the case for economic regulation should not be considered independently of the quality of the governance framework within which the water sector operates. This view is also present in policy discussions in New Zealand.

Water New Zealand (2011) believes that external regulation and price control is needed to improve sector performance, and also supports wide-ranging changes to governance. The Royal Commission on Auckland Governance recommended a "relatively light-handed regulatory approach" for Watercare (Box 8.7). The Local Government Infrastructure Advisory Group, on the other hand, was not convinced about the need for price regulation, proposing instead that the government should strengthen governance by establishing a disclosure regime for water applying to CCOs, council business units and other modes of delivery. The advisory group suggested that the OAG should monitor this reporting and the government should be prepared to consider further measures should the need arise in the future.

However, if Water New Zealand is correct that reform of water governance has been on the public policy agenda for a decade, this signals that governance reform is very difficult to achieve and makes it more likely that external regulation has an important part to play.

Q8.4 Does a case exist for introducing access, quality and price regulation for water services in New Zealand?

Funding of water infrastructure

Improving the efficiency of delivery of water infrastructure in New Zealand – through exploiting economics of scale, introducing commercial principles (including a shift to full cost recovery based on principles of network pricing), combined with improving the regulatory and institutional framework surrounding water infrastructure – might not ensure an optimal supply of water infrastructure.

The OECD notes that the issue of who should pay for water services remains difficult. The benefits of water services (or the costs through a lack of water services) do not necessarily accrue to the users of the service or to the party that pays for this service (p. 27) (Box 8.3, Table 8.2).

Table 8.2 Public good characteristics of water services

	Excludable	Non-excludable
Rival	Private good (eg, drinking water supply)	Free access or "common pool good" (eg, groundwater aquifer when individual pumping for irrigation is not monitored)
Non-rival	Club good (non-rival until a "saturation threshold" is reached) (eg, networked services, with the threshold linked with the capacity of the system; recreation use of a water body, if monitoring of access is feasible)	Public good (eg, wastewater treatment, flood management, resource and ecosystem protection, hydrological monitoring, stormwater drainage)

Source: Adapted from OECD, 2009, p. 25.

Due to the inherent difficulties in supplying water services, central or state governments in other jurisdictions contribute to the management and funding of water infrastructure in a variety of ways.

State governments play a significant role in Australia's water infrastructure. The supply of water and wastewater services to most of urban Australia is largely undertaken by state government-owned water authorities that operate as regulated monopoly businesses. Distribution services are provided under a variety of industry structures and with different mixes of state and local government ownership (PwC, 2010). For example, in South Australia, Western Australia, the Northern Territory and the Australian Capital Territory, urban water services are provided by vertically integrated state/territory-owned suppliers for an entire state or region. In Sydney, Melbourne and South East Queensland, there is vertical separation of the bulk harvesting and supply functions from the distribution and retail functions. And in regional New South Wales and Queensland, state-owned utilities provide bulk water while local government generally provides urban water services beyond the bulk supply point (PwC, 2010).

In addition, state funding of so-called catalytic infrastructure is present in some parts of Australia. For example, the Queensland Government has recently established a Priority Development Infrastructure programme. This programme allows local governments, water distributor-retailers, developers or other state agencies that deliver infrastructure to apply for "co-investment" funding from the state government. Co-investment funding is available for roadworks, water supply, wastewater and stormwater infrastructure that will enable significant development and economic growth for local communities. To be eligible for this funding, local governments must have adopted a certain schedule of development contributions (Queensland Government, 2015).

In England and Wales, one of 10 private (formerly state-owned) companies supply drainage and sewerage services to a particular region, and supply water to most customers in their areas of operation. Another dozen companies provide drinking water in particular localities. In Scotland and Northern Ireland, government corporations manage water supply. Owners or occupiers of a property are entitled to request that a water company provides a connection to a company water main for a domestic purpose; the water company is entitled to recover the reasonable costs of making the connection. Disputes are resolved by a government regulator. Where there is no water mains, the water company has a duty to respond to requests for water mains for domestic supplies, and are entitled to charge for providing the main and any necessary network reinforcement. The company must also allow for any future income that it will receive from the newly connected property. There are also infrastructure charges to connect a new property.

In each case, a move towards efficient network pricing approaches based around the recovery of long-run marginal costs has been an important feature of reform. This is an essential component of instituting water infrastructure provision that can flexibly respond to growth:

> In the case of water, it may appear that an increase in consumption will, in the short-run, only lead to an increase in pumping and treatment costs, but little else of any significance. In the long-term, increasing consumption requires the provision of new water resources, treatment capacity and the reinforcement of water mains … it is easy to show that such low estimates of SMRC [short-run marginal costs] do not represent a desirable pricing regime if we want charges for water to be stable over time and to be adequate to cover all present and future costs resulting from meeting increased demand. (London Economics, 1997, p. 8)

The OECD (2009) has noted that decentralised approaches to water management can delay the tariff reform necessary to move services towards cost-recovery models. It argues:

> The actual level of predictability of tariff levels, however, depends on the governance structure of service provision in a country, and especially on the independence from arbitrary political interference of the entities in charge of regulating tariffs and on their capacity to understand the values and costs that lie behind a tariff. Only such understanding will enable a tariff regulator to strike the right balance between protecting final users against excessive requests on the part of services providers and ensuring the financial viability of services. (p. 79)

Water management in New Zealand does not appear to have the institutional arrangements to make the changes necessary to ensure that infrastructure rollout can adequately respond to new demand. The Commission considers that alternative funding arrangements should only be examined within the context of greater use of network pricing for water supply and an improved governance and regulatory framework for the whole water sector.

Q8.5 How could the governance and funding arrangements for water infrastructure be improved to encourage providers to be more responsive to demands for new connections to the water network?

F8.2 The three waters have been identified as a relatively poor performing infrastructure class. In comparison with other jurisdictions, management of water assets in New Zealand is very fragmented. Strengthening commercial disciplines would provide greater imperative for weaknesses in the water sector's regulatory and institutional framework to be addressed, and may entail economic regulation of water services.

Summing up

Reviews of water services in New Zealand suggest that significant opportunities exist to improve the water sector's regulatory and governance framework. Capitalising on these opportunities could improve the performance of the sector in general and in the way it contributes to the supply of land to accommodate urban growth.

The Commission has raised a number of questions in this section and is interested in further comment from inquiry participants regarding how the governance framework and funding arrangements for water infrastructure could be improved so as to lift the performance of urban water networks and to make urban water providers more responsive to pressure for growth.

8.3 CCOs and the delivery of water and transport infrastructure

CCOs are allowed for under the Local Government Act 2002 (LGA), 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 of the 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).

Three CCOs are involved in providing and managing water or transport infrastructure. The roles of each of these CCOs are quite different (Box 8.4). These CCOs are of particular importance to this inquiry given the significant role of water and transport infrastructure in the supply of land for housing.

Box 8.4 CCOs involved in water and transport infrastructure

Watercare

Watercare provides water 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 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 who 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 the council. Watercare owns assets valued at about $8 billion. Investment in new infrastructure is funded by a combination of revenue from water and wastewater charges, IGCs, and external borrowing. Operational costs are funded through water metering.

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. Five of the Board's directors are appointed by central government, two are appointed by Auckland Council, and a representative from NZTA serves as an advisor to the board. Unlike Watercare, Auckland Transport is funded by 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.

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. It 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 have a large benefit to the region, but would not justify the attention of any single council.

Hamilton City Council, Waikato District Council and Waipa District Council are currently considering the governance arrangements for three waters, and recently co-funded a report to assess whether water, wastewater and urban stormwater could be more effectively managed and governed. The report recommended that the three councils should transfer their water and wastewater assets into a jointly owned not-for-profit CCO. It also recommended that the three councils should retain ownership of their urban stormwater assets, but outsource management of those assets to the CCO on a cost recovery basis (Cranleigh, Mott MacDonald & Martin Jenkins, 2015).

What are the advantages and disadvantages of the CCO approach?

Chapter 6 set out the critical role that infrastructure plays in the land supply process. It noted the challenge that councils face to deliver shovel-ready land in a way that creates some competitive tension between developers, while not over-capitalising in the construction of costly infrastructure or developing it before it is needed.

While the CCO approach does not fundamentally change this dynamic, establishing a separate entity with a single focus may help to drive a more efficient management and delivery of infrastructure assets. However, clear evidence about the relative performance of CCOs in facilitating a responsive supply is lacking. In part, this is due to the general paucity of data on infrastructure rollout. This report has already made recommendations to encourage councils to transparently report changes in their stock of dwellings, and information about 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 have existed in their 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 as of September 2014. Also the roles of each of the three CCOs are different, which makes drawing general conclusions about them difficult.

While it is clear that establishing CCOs to deliver infrastructure services is not a silver bullet for issues relating to land supply for housing, a well-designed and implemented CCO does have potential to improve performance. 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 8.3).

Table 8.3 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 politics allows the development of a culture focused on serving citizens/members interests.	**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 cost***s* – 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.

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)

With regard to Auckland Transport and Watercare, inquiry participants suggested that more effort is needed to avoid problems with coordination and that CCOs need to give greater priority to accommodating urban population growth.

Scope for Auckland's CCOs to improve coordination and give greater priority to growth

Several submissions 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)

Tauranga City Council questioned whether the CCO model is conducive to a coordinated approach to growth management:

> While there might be some benefits of delivering water, wastewater and even transport infrastructure through a CCO model or via private provision, TCC believes that the implications for how this may affect the ability to deliver an integrated approach to growth management require consideration. For example water and wastewater pipes are often laid in alongside new roads – how would this remain integrated if different organisations are managing different infrastructure networks? In addition how could a council ensure that its land use plans are integrated with the plans of other organisations that were responsible for the delivery of new infrastructure to service these land use plans? (sub. 47, p. 22)

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 CCO performance. The LGA 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, the 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 achieving the strategic directions contained in the Auckland Plan (Box 8.5).

Box 8.5 Contribution to the Auckland Plan: Watercare and Auckland Transport

Watercare's SOI refers to the role that the organisation will play in helping to achieve the 13 strategic directions contained in the Auckland Plan:

> The Auckland Plan sets out 13 strategic directions that will help Auckland achieve the Mayor's vision. Watercare contributes directly to several of these strategic directions. That is to:
>
> - Plan, deliver and maintain quality infrastructure to make Auckland liveable and resilient.

- Enable Māori aspirations through recognition of the Treaty of Waitangi and customary rights
- Acknowledge that nature and its people are inseparable
- Contribute to tackling climate change and increasing energy resilience. (Watercare, 2014b, p. 5)

Auckland Transport's SOI also sets out how the organisation intends to align with the strategic direction in the Auckland Plan:

> To align with to the strategic direction in the Auckland Plan and its new statutory purpose, Auckland Transport has identified the following overarching outcome: *Auckland's transport system is effective, efficient, and safe.* Contributing to that outcome are six impacts (intermediate outcomes):
>
> - Better use of transport resources to maximize return on existing assets;
> - Increased customer satisfaction with transport infrastructure and services;
> - Auckland's transport network moves people and goods efficiently;
> - Increased access to a wider range of transport choices;
> - Improved safety of Auckland's transport system; and
> - Reduced adverse environmental effects from Auckland's transport system. (Auckland Transport, 2014, p. 6)

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, 2012a). 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.

F8.3 The primary accountability documents for Watercare and Auckland Transport (the Statement of Intent) do not give effect to the objectives 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 (Table 8.4).

Table 8.4 Statement of Intent performance measures: Auckland Transport and Watercare

Auckland Transport	Watercare
Better use of transport resources to maximise return on existing assets	Safe and reliable water
Increased customer satisfaction with transport infrastructure and services	Healthy waterways
Auckland's transport network moves people and goods efficiently	Health, safety and wellbeing
Increased access to a wider range of transport choices	Customer satisfaction
Improved safety of Auckland's transport system	Sustainable environment
Reduced adverse environmental effects from Auckland's transport system	Effective asset management
	Sound financial management

Source: Watercare, 2014b; Auckland Transport, 2014.

The SOIs for Auckland Transport and Watercare both contain brief references to supporting growth.

- Auckland Transport's SOI programme notes that Auckland Transport will "progress transport investment to support development in the Northern Strategic Growth Area" and "contribute to transport planning in the greenfield areas of the Auckland Plan" (Auckland Transport, 2014, pp. 6–7).
- Watercare's SOI notes that "Watercare will give effect to the Auckland Plan" and commits to "working closely with Auckland Council on provisions in the Unitary Plan that provide for the efficient operation of Watercare's network and new infrastructure to provide for growth and support intensification" (Watercare, 2014b, p. 11).

But 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.

As discussed in Chapter 4, high-growth councils should set targets for zoned and serviced land, and should monitor dwelling completions and net changes in the dwelling stock, relative to expected and actual population and household growth. Chapter 6 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 there are no unnecessary impediments to a responsive supply of dwellings.

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.

In the foreword to its SOI (referred to as a Statement of Imagination), Auckland Transport notes that it is already in the process of clarifying its strategic objectives and developing appropriate associated performance indicators:

> This initial Statement of Imagination gives an indication of the form and substance of a definitive Statement of Imagination. When Auckland Transport has completed its current strategic work, the Statement of Imagination will be much more comprehensive, setting out very clearly the desired state for transport in Auckland and the complementary Statement of Intent will articulate the actions (and consequential key performance indicators) for the implementation of the Statement of Imagination. (Auckland Transport, 2014, p. 2)

This process should be used to address concerns about the supply of transport infrastructure needed to support growth.

Of course, any amendments to SOIs would need to be mindful of legal obligations, such as the requirement under the Local Government (Auckland) Act 2009 (s 57) that a water organisation must

> [m]anage its operations efficiently with a view to keeping the overall cost of water supply and wastewater services (collectively) at the minimum levels consistent with the effective conduct of its undertakings and the maintenance of the long-term integrity of its assets.

R8.1 Auckland Transport and Watercare should amend their SOIs so that they are aligned with the Auckland Plan and its target for new dwellings. The SOIs should include performance measures relating to the efficient rollout of new infrastructure to support an increased supply of new dwellings.

Auckland Council is currently undertaking a review of their CCOs. As part of this review, the Council has prepared two reports that identify what is working well and identify any opportunities for improvement. One report is from the perspective of council; the other is from the perspective of CCOs. Both reports identified that Auckland Council and its CCOs could work more effectively as a group.

From the CCO perspective, PricewaterhouseCoopers (PwC) identified three opportunities for Auckland Council and CCOs to improve coordination:

- Establish a director pool across the seven CCOs, where board members can sit on more than one board and/or rotate across boards. This may support better intra-group communication and more effective collaboration.
- Encourage more frequent short-term secondments between organisations, particularly in areas with perceived or actual areas of operational overlap.
- Share successful processes, policies or approaches from one CCO to the next or between CCOs and Auckland Council. (PwC, 2014a)

Auckland Council also identified scope to improve coordination. They canvassed a number of options to improve integration, including using cross-agency groups, integrating corporate policies and processes, and strengthening a culture of collaboration across the Auckland Council group (Auckland Council, 2014b).

The SOI process provides Auckland Council with the opportunity to set performance indicators to address concerns about inadequate coordination between CCOs or insufficient alignment with Auckland Council's objectives. This would strengthen the incentives on these organisations to find ways (such as memoranda of understanding, setting up a development facilitator, or tighter coordination processes) to improve the coordination between them and facilitate urban development. When Auckland Council has concluded their review of CCOs, they should incorporate measures to improve integration and coordination between CCOs and Auckland Council in SOI performance measures.

R8.2 Auckland Transport and Watercare should include performance measures in their SOIs that encourage greater coordination between CCOs and with Auckland Council, building on Auckland Council's current review of CCOs.

8.4 Infrastructure growth charges

Watercare receives no funding from Auckland Council. It raises most of its revenue through volumetric water charges (water metering). 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, 2014a).

Watercare (2014a) 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 (Auckland Council, 2014a).

How is the IGC calculated?

The current IGC is $12 075 excluding GST (the charge was $9 775 before 1 July 2014). The IGC is levied for each new residential dwelling, including "minor household units, extensions without internal access to the main dwelling, and sleep outs with bathroom/toilet facilities" (Watercare, 2014a). Hence the ICG is a flat charge that does not vary depending on the location or nature of the dwelling. Only customers in rural areas pay different amounts, and minor household dwellings that are smaller than 65m^2 are charged at 2/3 of the residential rate.

Watercare's annual report (2014c) sets out the role of IGC and notes that it does not currently fully recover the capital costs associated with growth:

> Over the next 10 years, Watercare needs to invest $4 billion [real dollars, not including capitalised interest] in infrastructure. To fund that investment in a way that is fair for all, we employ a combination of

> service charges, growth charges and borrowing that balances the financial contribution made by present and future generations and ensures the costs of growth and development are accurately aligned. From 1 July 2014, our infrastructure growth charges will rise as a result of increasing growth. These charges only partially recover the capital costs associated with growth, from those who increase demand on the system. (p. 8)

A report prepared for Watercare by PwC (2014b) reviewed Watercare's revised IGCs. 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 revised IGC policy seeks to recover the costs of new infrastructure which caters for growth from the "growth community". PwC generally supported the approach, although they noted that Watercare should recover all costs (they currently under-recover) and that a more targeted approach would be preferable if complexity and administrative costs could be kept low.

Criticism of the IGC

The IGC has attracted criticism from the development community. This is most commonly in response to the size and recent increases in the charge; the fact that the charge does not reflect actual costs; and the fact that the charge is not subject to sufficient scrutiny (Box 8.6).

Box 8.6 Criticism of Watercare's Infrastructure Growth Charge

Property Council New Zealand (2014) noted that the 2014 increase in the IGC was "worrying as it is likely to directly impact on the cost of a new house by increasing development costs". Grimes and Mitchell (2015) also report concerns from developers about recent escalation in the charge:

> The overall sentiment from developers is that Watercare contributions have been consistently escalating and are now $12 500 [actually $12 075] a connection. Developers consider that they are paying for a lack of past investment. (p. 33)

Some commentators have also criticised the IGC on the grounds that it is a flat charge that does not reflect actual costs:

> 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)

Property Council New Zealand's submission also raises concerns about the cost of the IGC and suggests that the charge 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)

Should the IGC more closely reflect costs?

As discussed in Chapter 6, 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 Tauranga City Council's policy has a special rate for infill housing (Tauranga City Council, 2014d).

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, 2014b). Following the amalgamation, Watercare assumed responsibility for water and wastewater operations for the former councils in the Auckland region. As a result, Watercare inherited a diverse range of charging arrangements. Watercare's revenue and financing policy guidelines notes that charges "should have regard to the costs of carrying them out, and how effective they will be in achieving their objectives". This suggests that the adoption of a flat charge was adopted primarily because it is relatively straightforward to calculate and is less costly to administer.

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 the previous chapter, 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 (they are gradually transitioning to a full cost-recovery model) – however some dwellings will receive a greater discount than others.

R8.3 Watercare should change their approach to calculating infrastructure growth charges to better reflect the underlying economic costs of supply in different locations and for different types of dwelling.

Should IGCs be subject to greater scrutiny?

As discussed above, several inquiry participants voiced concerns about the lack of oversight that applies to IGCs. These concerns stem from the fact that no regulatory checks or controls are specifically targeted toward Watercare's IGCs. But some general regulatory checks do apply to Watercare that are relevant to when and how IGCs are charged. These checks are set out in the following section.

Regulatory checks and controls on Watercare

Watercare is subject to various regulatory checks and controls sourced in different pieces of legislation: the Local Government (Auckland Council) Act 2009, the LGA 1974, and the LGA 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 and wastewater services, consistent with effective supply. The prohibition on paying a dividend reflects the expectation that efficiency surpluses be applied to reducing customer prices. All revenue is invested either in infrastructure and equipment or in operating costs. Watercare's Statement of Intent states that Watercare annually reviews any surplus funds from water and wastewater services and considers if it is commercially prudent to return surpluses to customers (Watercare, 2014b).

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 local authority

Section 65 of the LGA 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 LGA 2002 (see s 64 of the LGA 2002). 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).

Legislative or other guiding principles and rules

No legislative or other guiding principles or rules are specifically targeted at IGCs. But the guiding principles and rules that Watercare is generally subject to are relevant. In making decisions about and imposing IGCs, Watercare must give effect to the principles set out in section 57 of the Local Government (Auckland Council) Act 2009. Of particular relevance is the principle that the 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. Watercare must give effect to this obligation when it makes decisions, such as calculating the costing of IGCs, justifying IGCs, and deciding how IGC proceeds are spent.

Judicial review

Options to contest an IGC are limited: it appears the only options are judicial review or complaint through Watercare's standard complaints procedure. The Commission is not aware of any cases where Watercare has

been subject to a judicial review challenge, but it appears that the option is available. In practice however, for most developers the cost associated with a High Court application is likely to preclude the option.

A gap in the regulatory framework?

The checks and controls that relate to Watercare's IGC appear relatively light-handed, particularly when compared with the detailed prescriptive requirements imposed on local authorities' development contributions and regulatory controls on capital contributions in other sectors (such as electricity). 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, the IGCs are not subject to the same checks and controls as are development contributions, and no statutory or other checks and controls are targeted specifically at IGCs. As noted above, 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.

The Royal Commission on Auckland Governance considered how water wastewater services would be best dealt with under an amalgamated council. The Royal Commission made several recommendations regarding the regulatory oversight of Watercare (Box 8.7).

Box 8.7 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 LGA 1974 stated that the 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 Commission considers that 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. The Commission is interested in further information about whether the existing, more general, checks and balances that apply to Watercare are sufficient.

Q8.6 Do the existing checks and balances that apply to Watercare provide sufficient oversight of Watercare's infrastructure growth charges? If not, what alternative measures would be most appropriate?

CCOs and development agreements

Chapter 6 described the 2014 amendments to the LGA 2002 that 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 introduced a requirement for councils to consider any request to enter a development agreement and to respond in writing with a decision regarding the request, and the reasons for the decision.

As with provisions that introduced greater scrutiny of development contributions, the amendments to the LGA 2002 that require councils to consider development agreements make no reference to infrastructure provided by CCOs. This means that CCOs such as Watercare are not under the same obligation as are councils 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 council-owned CCOs. Statements from one of the developers interviewed by Grimes and Mitchell (2015) suggest that this is problematic and that developers may be able to provide infrastructure solutions at a lower cost:

> 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)

R8.4 The requirement to consider development agreements that applies to councils should also apply to CCOs.

Q8.7 Are there other regulatory requirements that apply to councils that should be extended to include CCOs?

8.5 Conclusion

Supply of 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, whereas the arrangements for water infrastructure are much more devolved.

The main concern relating to governance of transport infrastructure stems from the incentives facing NZTA and local councils. 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 NZTA and council priorities. Directing NZTA to focus on 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, and can include regulation over access and the price of services.

Substantial weaknesses have been identified in the water sector's regulatory and institutional framework. 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. The

Commission is interested in further feedback from inquiry participants for reform of the regulatory framework for water to support urban growth. The Commission is also seeking feedback about opportunities to take advantage of scale economies in the delivery of water services.

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 CCO SOIs relating to the efficient rollout of new infrastructure to support an increased supply of new dwellings.

9 Shaping local behaviour

Key points

- Existing homeowners benefit from local regulations that restrict the supply of new dwellings. Homeowners also have a disproportionate influence on local political processes, including local body elections and consultation processes. Many of the undesirable council practices outlined in this report are readily explained as councils being responsive to those who participate in local democratic processes.
- Consultation processes that seek to understand the wider community's perspective on land use regulation can help overcome these drawbacks. Some councils in New Zealand and overseas are exhibiting good practice in promoting more sophisticated conversations about their cities' futures and about accommodating growth.
- Compared to other countries, planning matters in New Zealand show relatively little central government involvement, including a lack of national guidance. The divergence between local and national interests in the growth of New Zealand cities may justify greater central government involvement. For example, Ministerial powers might expand to direct changes to local plans where evidence shows that the plans provide insufficient development capacity to meet population growth.
- Some land banking occurs in New Zealand cities. But land banking is only possible because local regulations and investment decisions restrict the supply of land for housing. Land banking is a symptom, rather than a primary cause, of land supply shortages.
- Council rates are a type of tax, and can influence a landowner's 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.
- A trend in recent decades is 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.
- Local government rates allocate a fixed revenue burden among ratepayers. Although growth provides councils with the opportunity to increase their expenditure by expanding the rating base, the direct incentives from the rating system on councils to accommodate growth are weak.
- The UK central government provides councils with a bonus for the construction of new dwellings. Little evidence exists that this is effective in encouraging councils to be more accommodating of growth.
- Core Crown land is exempt from general rates. There appears to be no principled reason for this. Rating Crown land would provide agencies with the same incentives as private owners have to use land or release it to those who will develop it.

9.1 Introduction

In a 2008 review of how housing markets and the economy interact, Muellbauer and Murphy concluded:

> Increases in the average real price of housing change the distribution of welfare towards the old, who tend to be owners, and away from the young, who tend not to be owners and may not even be old enough to vote. The effects on the intergenerational distribution of welfare are similar to those of higher government budget deficits. (p. 27)

But they noted the distributional effect of the intergenerational transfers is not the same in the case of housing:

> An important difference, however, is that while deficits may be used to fund public goods, such as health and education, the redistribution from an increase in average house prices is towards the haves from the have-nots. Because access to a clean environment and publicly funded goods, such as transport and education, is reflected in land or house prices … inequality of income and wealth is often transmitted into differential access to such goods. Thus, higher average house prices tend to amplify market inequality and social exclusion. (p. 27)

Muellbauer and Murphy considered that these policies are explained by the underlying political processes:

> The lack of voting power of the young and the disproportionate influence of wealth, via the media and the funding of political parties, tends to make governments complicit in policies resulting in higher house prices. This includes planning or zoning policies favouring incumbents, as well as tax policies. (p. 27)

This chapter reviews some of these influences as they apply at the local level. It will consider some of the forces that influence the attitudes and actions of landowners, homeowners 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.

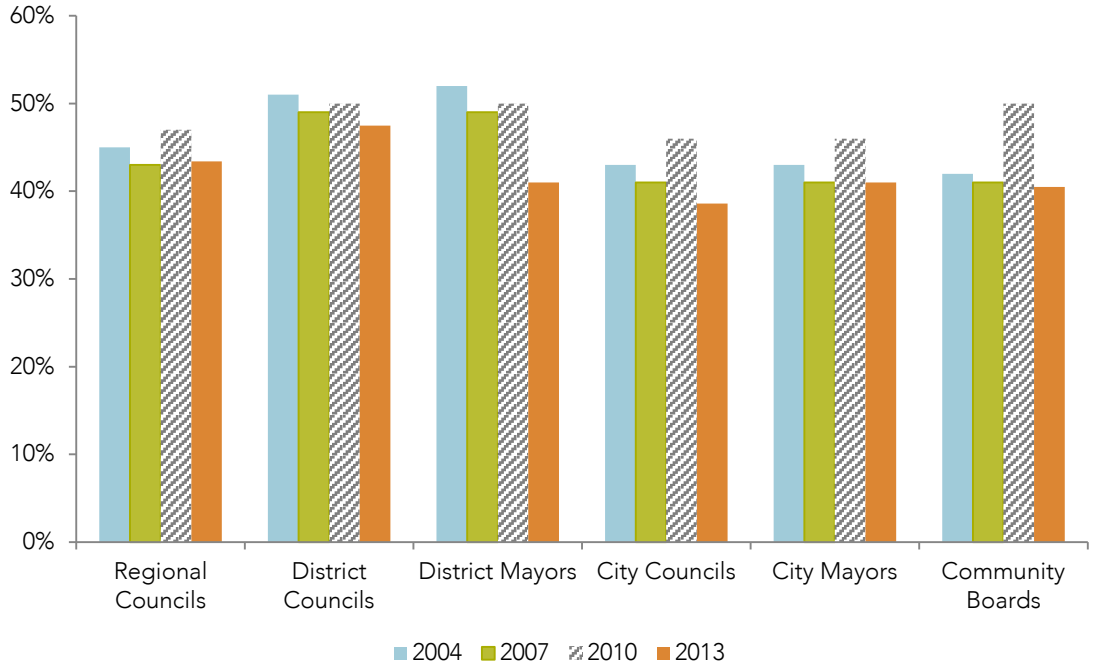
9.2 The political economy of local planning

Key decisions about land use regulation and investment in growth-enabling infrastructure are taken by popularly elected local politicians or officials operating within a framework set by those politicians. Those politicians face pressure to act in ways that are not always supportive of residential development or growth.

Participation in local body elections

Turnout in recent local body elections has been trending down and has not exceeded 50% since 2007; in 2013 the turnout for city council elections fell to 39% (Figure 9.1).

Figure 9.1 Turnout in local elections



Source: DIA, 2013d.

Among the 10 territorial authorities that are the focus of this inquiry, voting rates have been static or declining over time (Table 9.1).

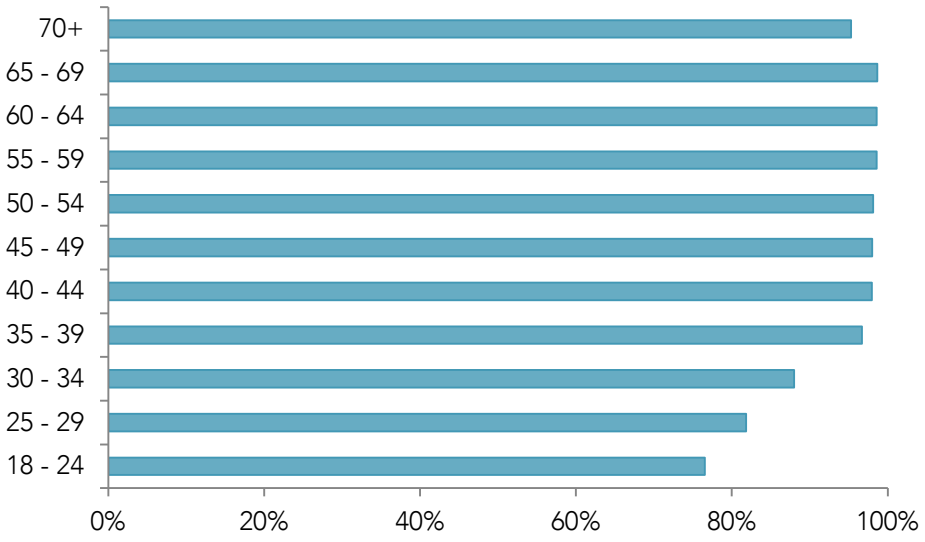
Table 9.1 Voting rates among the 10 territorial authorities that are the focus of this inquiry

Council	2004	2007	2010	2013
Auckland Council	n/a	n/a	51%	36%
Christchurch City Council	39%	42%	52%	43%
Hamilton City Council	45%	35%	38%	38%
Queenstown Lakes District Council	55%	48%	51%	46%
Selwyn District Council	37%	44%	44%	43%
Tauranga City Council	46%	44%	44%	38%
Waikato District Council	42%	35%	34%	31%
Waimakariri District Council	39%	45%	42%	35%
Wellington City Council	42%	40%	40%	42%
Whangarei District Council	52%	52%	49%	48%

Source: DIA, 2013d.

Homeowners are thought more likely to be voters (Koff & Sen, 2005). This may be supported by voter registration data, where older people are more likely to be enrolled than younger people (Figure 9.2) and more likely to vote in local elections (Figure 9.3).

Figure 9.2 Voter enrolment rates by age

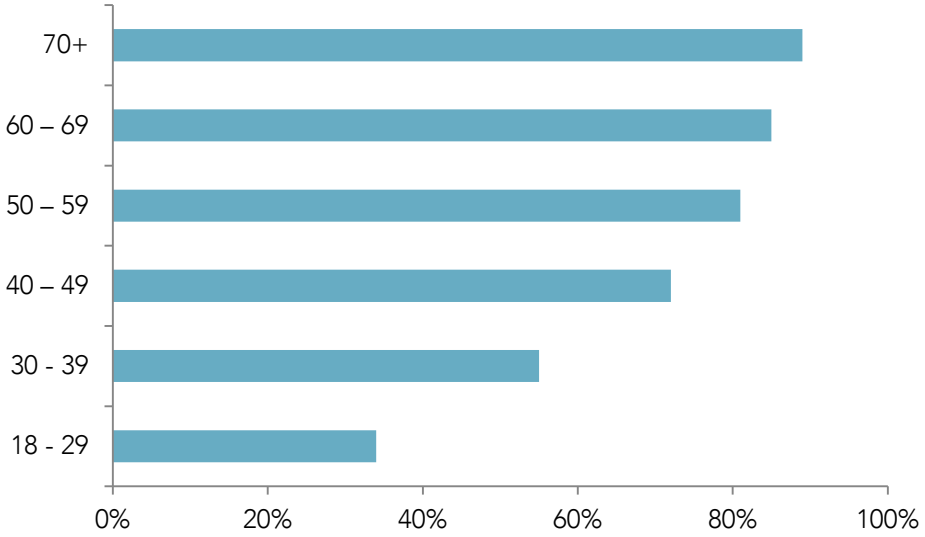


Source: Electoral Commission, 2014.

Note:

1. As at 20 September 2014.

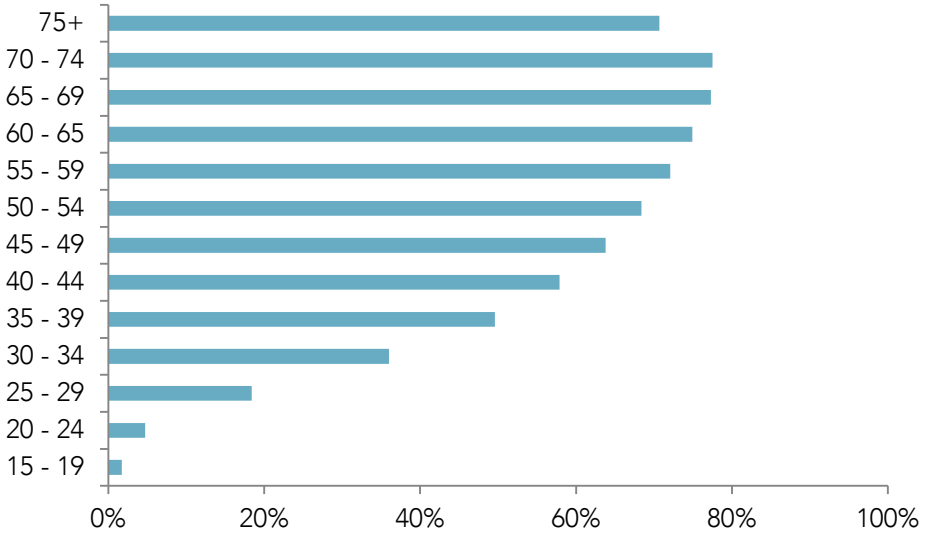
Figure 9.3 Voting rates in local elections by age



Source: LGNZ, 2013b.

A strong correlation exists between age and home ownership (Figure 9.4).

Figure 9.4 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 homeownership rates among older New Zealanders, means that homeowners are likely to be the dominant voters in local government elections.

F9.1 Groups that have high home ownership rates have higher rates of participation in local government elections.

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 citizens 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. Tauranga City Council 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 UK (Coelho, Ratnoo & Dellepiane, 2014).

F9.2 Restricted housing supply will tend to inflate the value of existing homes.

F9.3 Existing homeowners have an incentive to be risk-averse in opposing developments that could affect the amenity and 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, Monk et al. 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. (2013, p. 37)

These sentiments have been expressed by the Mayor of Queenstown Lakes:

> ''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)

F9.4 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.

Saiz (2010) shows that 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. (p. 1286)

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 Wharton Residential Land Use Regulatory Index (see Chapter 2), housing prices and demographic growth. Physical land scarcity, such as in cities situated on 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. 1255)
>
> 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. (pp. 1279-80)

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 at an earlier point in time.

F9.5 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.

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 problems identified in this report:

- the existence of urban containment policies and density controls (Chapter 2), minimum parking requirements, minimum apartments sizes, balcony requirements, and lower-than-optimal height restrictions (Chapter 3);
- the proliferation of lifestyle blocks through zoning policies (Chapter 3);
- controls on the internal design and construction of buildings that exceed standards set under the Building Act (Chapter 5);
- land use regulations that make many residential land uses "discretionary" in District Plans, rather than "restricted discretionary" or "permitted" (Chapter 5);
- a reluctance to use available funding sources resulting in the rationing of growth-enabling infrastructure (Chapters 6 and 7); and
- the absence of facilitating dwelling growth as an objective of council controlled organisations (CCOs) (Chapter 8).

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 the gains of 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 homeownership 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 Proposed Auckland Unitary Plan (PAUP) has been described as the result of lobbying by existing homeowners (Box 9.1)

Box 9.1 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. Each of these is commonplace in New Zealand cities, and present in Auckland.

F9.6 The influence of homeowners in local government elections and consultation processes promotes local regulatory and investment decisions that have the effect of reducing housing supply.

9.3 Implications for the inquiry

The evidence that councils' incentives around land supply for housing are skewed by the domination of homeowners in elections and consultation processes is concerning.

Were voter turnout in a national election to fall to 40%, it would likely be considered a democratic crisis, and questions might be asked about the legitimacy of the result of those elections.

Addressing the democratic failure

One implication of these findings could be to put more effort into increasing public understanding about local government and encouraging participation in local body elections. Low voter turnout in local body elections is not exceptional compared to local body elections in other countries, and reasonable competition exists among candidates for election (LGNZ, 2012). Local Government New Zealand (LGNZ, 2013b) has previously suggested that low voter turnout may be an indication of broad satisfaction with local service delivery.

Yet a survey of New Zealanders' perceptions of local government, undertaken for LGNZ (2015b), shows wide public dissatisfaction with the performance and local leadership of councils. The survey showed low awareness of the range of services and functions undertaken by local government, and only a minority of respondents (43%) considered that local government is "extremely important" or "very important" to them in their daily life. Notably, the figure was much higher for those aged 65+ (59%) and lower for those aged 18–29 (30%) and 30–39 (38%).

So a better explanation for low voter participation is a general lack of understanding about the importance of local government in influencing residents' quality of life, including their access to housing. While both homeowners and renters share the burden of paying rates, this fact is less clear to the second group because the cost of rates is bundled into the rent price.

The report of the Justice and Electoral Committee (2014) on the 2013 local authority elections made a number of recommendations to address this, including that Government should:

- provide local authorities with good-practice guidance on making council information and decisions easily accessible online in a plain English format;
- commission research into the value of civics education, and review the available teaching material about civics education;
- provide local authorities with guidelines about promoting voting in local authority elections;
- consider a national campaign to promote voting in local authority elections;
- consider amending the Local Electoral Act 2001 to give the Electoral Commission a mandate to promote participation in local authority elections (it already has such a mandate to promote participation in national elections); and
- promote alternative voting methods.

These options may be worthy of investigation. LGNZ and the Department of Internal Affairs should also consider options to increase understanding of the functions that councils undertake, so as to promote participation. However, New Zealand's voting rates at the local government level are not unusual internationally (LGNZ, 2012). This suggests that overcoming the problem of low voting is unlikely to be easy or fast.

Better consultation

In its 2013 report *Towards better local regulation*, the Commission found that increasing diversity and greater community expectations present difficulties for local authorities in reconciling different community interests and making decisions. It noted that:

> Diverse communities imply diverse needs. New Zealand's communities have diverse cultures, age profiles, interests and expectations of local government. This poses challenges for local authorities and the way in which they engage and consult with people on the issues that affect them. …
>
> Changing age profiles drive changing expectations and ways of communicating. Older people are likely to have different priorities from younger people and may have different expectations about the role of local government. At the same time, the advent of the internet and social media mean that younger people communicate in quite different ways (though many older people are also adept at these new forms of communication). (NZPC, 2013, p. 52)

A need exists for councils to consider alternative consultation mechanisms that ascertain the views of a broader cross-section of the community in developing plans in a way that seeks to extract the actual (often diverse) views of underrepresented groups, rather than stereotyping them.

Engagement with the public is a key step in planning for the provision of more development capacity. Increases in a city's population and housing supply affect existing residents and amenity, and need to be clearly explained to, understood and accepted by the community. However, gaining wide and deep involvement in city planning has proven a challenging goal for many cities — in New Zealand and overseas.

How well do current processes engage the public?

A number of submitters argued that current planning processes are difficult for the public to access, with complex planning documents identified as a major barrier to engagement. This creates community resentment, opposition to planning proposals and planning outcomes that favour existing residents:

> The current consultation process around proposed plans is a joke. They are so complex it is beyond the scope of the average ratepayer or even most professionals to make a compelling submission for change. Most if not all submissions are traditionally ignored by the Planners. (Wilson Penman, sub. 1, pp. 1–2)

> The complexity and difficulties of navigating the Proposed Auckland Unitary Plan PAUP and the hearing processes are such that people who are not expert in planning or law cannot properly understand what is proposed and what rules apply to developments. This leads to the majority of Aucklanders being effectively disenfranchised from the process. Auckland 2040 acts as the umbrella organisation for approximately 100 community organisations across Auckland. This has been necessary as without our professional input effective participation in the process would be very difficult. This lack of involvement leads to resentment and this in turn leads to the creation of political opposition to provisions which seem to the population to be intrinsically unfair. (Auckland 2040, sub. 28, p. 5)

> In Auckland, clearly young people and new residents are affected by housing unaffordability. They did not appear to formally engage in the process and therefore the PAUP was revised to benefit existing residents over them (ie, large swathes of the residential zones have blanket heritage protections covering them, and zones enabling higher density development have been decreased – neither of which are helpful to increase development / supply and address housing affordability concerns) (Property Council New Zealand, sub. 33, p. 7)

Others noted that getting the public involved can be difficult for local authorities because of limited community understanding or interest in planning processes:

> RMA [Resource Management Act] related District Plan review of Plan Change consultation requirements are extensive. The degree of participation by individual affected land owners is variable. They often have conflicting agendas. Councils proactively engage to encourage orderly land development strategies but this can be a very challenging process. (Ralph Broad, sub. 3, p. 2)

> The issue is not generally in making information available and giving people the opportunity to comment, but getting the public to take an active interest. The general public have little awareness of the role of District plans and play little attention to them, until they either want to do an activity requiring resource consent or a resource consent is lodged for neighbouring land. (Allison Tindale, sub. 8, p. 10)

Underlying problems

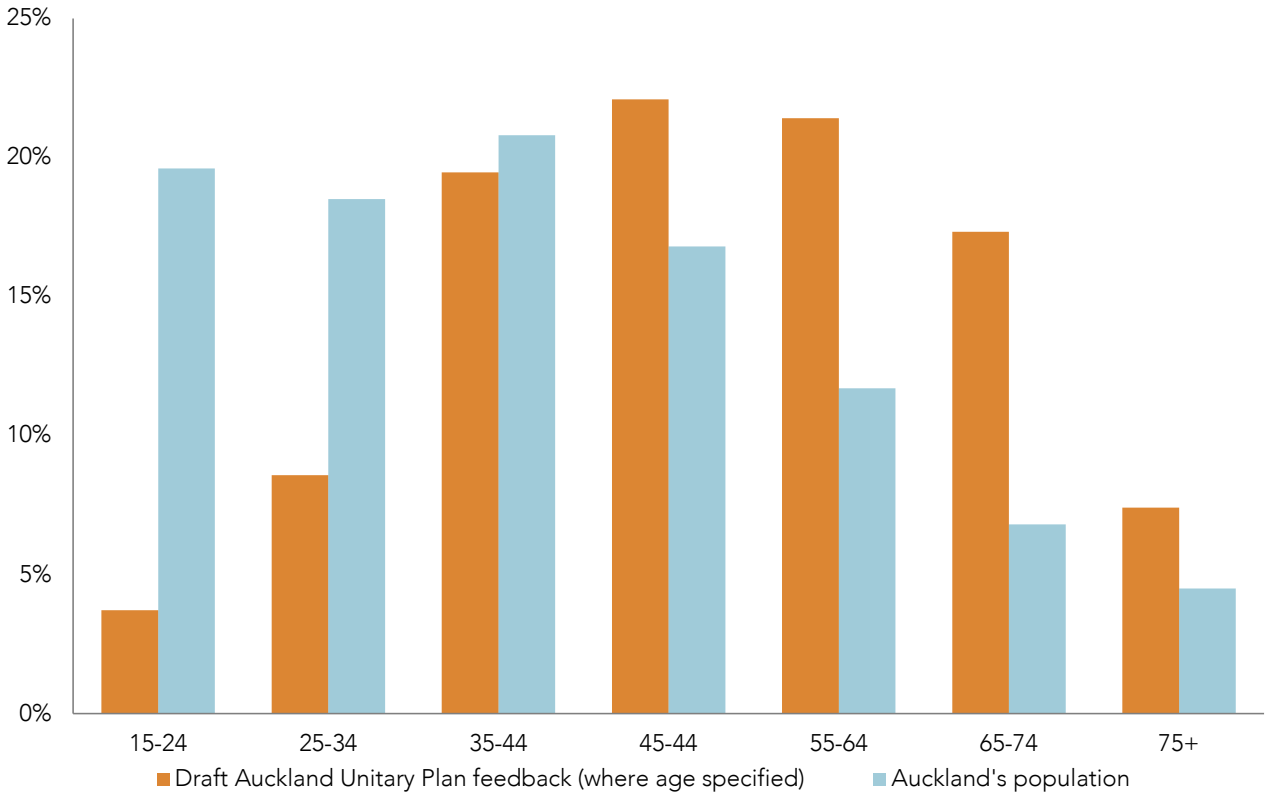
Two reasons why public engagement has shown disappointing results in some New Zealand cities are skewed participation in engagement, and insufficiently inclusive or innovative processes.

Skewed participation in engagement

As noted earlier in this chapter, participation in local body elections is skewed towards property owners. Evidence suggests that similar dynamics occur in local authority planning engagement processes. An Auckland Council report on feedback on the Draft Auckland Unitary Plan found that more of the respondents (ie, those who provided comment either on paper or online) were Pākehā (Figure 9.5) and older (Figure 9.6) than the general population of Auckland.

Figure 9.5 Feedback on Draft Auckland Unitary Plan by ethnicity

Figure 9.6 Feedback on Draft Auckland Unitary Plan by age group



Source: Auckland Council, 2013d.

Auckland Council also established an online People's Panel as part of its enhanced consultation around the PAUP. The report summarising the panel's views noted that

> forum participant demographics were skewed towards older people (especially those aged 55-75 years) and Europeans … The forum attracted a relatively high proportion of participants from central and north Auckland, and fewer from South Auckland, similar to other Peoples Panel surveys. (Parsons, 2012, pp. 12–13)

Similar arguments have been made about the age and ethnicity of submitters on the Auckland's Long-Term Plan (Nunns, 2015).

Insufficiently inclusive or innovative processes

Evidence provided to the inquiry indicated that many local authorities go to considerable lengths to garner public interest and involvement in the development of city plans. Even so, there was a sense in this evidence that some councils saw the focus of their engagement activities as encouraging people to participate in the process steps laid down in the RMA's Schedule 1, rather than seeking a deeper understanding of the wider community's needs or involving them in making decisions about trade-offs within a plan. One council argued that attempting to

> accommodate views of those who do not participate in the process would create an outcome where there is no incentive to participate at the beginning but rather confront at a later date. RMA pre-consultation processes (clause 3, schedule 1) enable people to engage informally in the early stages of plan development. The section 32 Evaluation Report requires a consideration of social, cultural, economic and environmental effects. (Otago Regional Council, sub. 15, p. 6)

Where more intensive engagement processes were used for planning, they tended to use the less prescriptive consultation mechanisms of the Local Government Act 2002 (LGA). This can be seen in the processes that local authorities used to develop some of the spatial plans discussed in Chapter 3. Two examples are noted below.

- Auckland Council used a range of tools to consult over the Auckland Plan, including a youth campaign that included 60 workshops/meetings and a hearings session devoted solely to youth issues; an online People's Panel in which Auckland residents "were invited to have their say on council's plans activities and services by taking part in short surveys sent to them by email"; forums and summits targeted at particular ethnic communities; and 50 roadshows held across the region (Auckland Council, 2012c).
- To develop the Whangarei Growth Strategy, the Whangarei District Council conducted research into the region's expected population growth, demographic change and the implications for the environment, economy, infrastructure demand and housing. It then consulted on three potential scenarios for responding to the region's growth. The preferred scenario formed the basis of its final Growth Strategy.

Q9.1 Do the procedural requirements of the RMA's Schedule 1 discourage local authorities from undertaking more inclusive or innovative public engagement on city planning proposals?

Getting deeper and wider involvement

Drawing upon Grattan Institute research into city governance, Kelly and Donegan (2015) argue that effective and sustainable urban decision making has two key characteristics:

> First, decision-making must take the whole city's needs into account. This doesn't necessarily require new organisations. Less formal mechanisms – such as improved cooperation among governments, businesses and civic institutions, and good relationships among the various players, including across political divides – are critically important in making this happen.
>
> Second, if changes are to endure, residents need to have much more power to shape decisions that affect them – both at a citywide and at a local level. The community engagement that precedes decisions affecting cities and the living in them needs to extend far deeper than the perfunctory exercises that Australian governments usually conduct. (pp. 153–54)

In its report on regulatory institutions and practices, the Commission also highlighted factors that contribute to effective consultation processes in the context of collaborative group decision making – a shared understanding of the boundaries of influence of the group, commitment to implementing the outcomes of a collaborative process, understanding the information needs of all parties and reducing information imbalances, selecting participants that represent the wider interests of the community, and establishing clear and transparent processes. (NZPC, 2014, p. 154)

Some of the spatial planning processes discussed earlier in this report have attempted to take a broad and long-term view of their city's needs. The Commission's recommendations for greater central government involvement in these processes (see Chapter 3) are intended to strengthen and bring the national interest more squarely into the development and implementation of the plans.

There appear to be relatively few processes in the New Zealand planning system which encourage or enable local communities to shape or make decisions. Structured in a way to include the whole community, greater local involvement may help reduce resistance to intensification by giving communities more control over the nature of change or the ability to seek improvements to local facilities to offset any lost amenity. Brisbane City Council's neighbourhood plans are examples. (Box 9.2).

Box 9.2 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. These in effect act as incentives for greater intensification, and help 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.

The Brisbane model is very resource-intensive, and reflects a different policy environment, in which the State government sets growth targets for the city and the city council is required to give effect to them through its planning processes. Even so, the concept of providing benefits (in the form of better facilities or infrastructure) to offset any lost amenity that arises from intensification may be helpful in smoothing the path for growth in cities such as Auckland.

Q9.2 Does scope exist to introduce mechanisms such as the Brisbane neighbourhood plans into the New Zealand planning and development system? If so, how would it be implemented?

Other, less expensive ways exist to engage the community in deciding difficult trade-offs facing a city. Auckland Council recently commissioned Colmar Brunton to conduct a representative survey of 5 000 Auckland residents, to seek their views on two funding options for the city's transport network. The survey found that:

- 58% of survey participants favoured increased funding in transport to provide the "more comprehensive transport network" that included "new roads, rail, ferries, busways, 'park and rides', and cycleways, as well as school and community travel plans and safety programmes" (p. 4);
- this option enjoyed support across all gender and age groups, with the exception of those aged over 70; and
- a majority (57%) of participants supported a motorway user charge of around $2 a journey to meet the additional $300 million cost of the comprehensive option, compared to the alternative option presented of a fuel tax increase and additional rates increase (Colmar Brunton, 2015).

Such surveys can help to offset the tendency of some groups being over-represented in planning engagement processes.

F9.7 Tools such as statistically robust and representative surveys can help to offset the tendency of planning engagement processes to be skewed towards particular segments of the community.

A larger role for central government

In Chapter 2, 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 being smaller than would be optimal from a national perspective, resulting in less income and welfare for New Zealanders.

Local constraints on land and housing supply, and particularly issues in our largest city, clearly create externalities for the wider economy. These externalities are discussed in Chapter 2 and include:

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

There is a "wedge" between the preferences of central government around accommodating growth in our fastest growing cities, and the preferences of local government. Beyond a certain point, the benefits of growth accrue nationally, and the costs are felt locally. Kerr, Claridge and Milicich (1998) show that in this situation, national decisions will lead to over-provision of a good, and local decisions will lead to under-provision.

Many of the recommendations outlined in this report will help ease constraints on the growth of cities. However, these recommendations will not, on their own, override the tendency for local interest groups – especially homeowners and ratepayers – to have a strong and constraining influence on plans. At its most extreme, the inability of some fast-growing local authorities to zone, consent and service (with infrastructure) sufficient effective land supply to meet demand can lead to significant shortfalls in housing and rapidly rising house prices – as currently seen in Auckland.

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 is "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.

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 5 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 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. (p. 44)

- *Improve formal and informal contracts between central and local government.* The HASHA Act is a clear attempt at addressing this. Chapter 4 also discusses the role that better specification of targets could play in improving land release.

  > 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. (p. 44)

- *Reduce duplication of objective information and technical skills.* This report considers there are opportunities for councils 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 information and skills in planning large, fast-growing cities (Chapter 3).

- *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 failures that prioritise the views of those who see more cost to growth locally, and does not adequately take account of those who see more benefit locally. Addressing those problems of local political accountability, for example through better consultation processes (discussed above and in Chapter 4) 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. (p. 45)

The 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, compensating local government for the locally-felt costs. Central government may be better able to trade off the interests of existing homeowners against renters, those in temporary accommodation, and those seeking to purchase a first home, in part because of its broader democratic mandate.

Chapter 2 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) would 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 constraint 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)

However, there are opportunities to improve the balance between local and national involvement in the planning and development system, without shifting decision-making.

F9.8 Local land regulation can have consequences of national importance. If a faster release of land is to be achieved, the balance between local and national involvement in the planning and development system may need to shift.

Options to provide greater balance in the planning and development system

Central government in New Zealand plays a relatively limited role in city planning compared to other countries, particularly where it comes to the preparation of plans:

> Thus for example in the State of Victoria the Melbourne metropolitan strategy is prepared by the Victorian State Government and it can only be changed by Act of the State Parliament. In Queensland, the State Government prepares the regional plan for South East Queensland. In Canada, the Ontario Provincial Government prepares the growth plan for the 'Greater Golden Horseshoe' centred on the city of Toronto…In England, on those occasions when submissions to a proposed regional spatial strategy are to be heard (and not all of them are), then it is the Minister who appoints the hearing panel and the Minister who makes a decision on amendments or otherwise to be made to the spatial plan as a result of the hearing process. (Urban Technical Advisory Group, 2010, p. 14)

Central government has been active in the Canterbury rebuild and recovery, including in opening up new land for residential development (Box 9.3).

Box 9.3 Ministerial powers under the Canterbury Earthquake Recovery Act 2011

Under the Canterbury Earthquake Recovery Act 2011, the responsible Minister has wide-ranging powers, including the power to change local planning instruments. Three examples are noted below.

- In October 2011 the Minister directed changes to the Canterbury Regional Policy Statement that identified areas available for urban development, specified residential densities, required local authorities to provide for sequencing of developments, and provided for form, design and development plans to enable integrated management.
- In November 2011 the Minister expedited plan changes to zone new residential land in Christchurch, and lifted conditions that were delaying a development in Kaiapoi.
- In June 2013 the Minister published a draft Land Use Recovery Plan (LURP). It was approved in December 2013. The LURP provided direction for residential and business growth across greater Christchurch. It identified priority areas for residential development, including areas already zoned but not yet developed as well as new areas at Halswell, Belfast and Rangiora. In total, the Recovery Plan provides for 30 600 sections by 2016 and 42 600 sections by 2028. A large number of changes were directed to local District Plans, the Regional Policy Statement and other instruments, to give effect to the LURP.

The circumstances that gave rise to the creation and exercise of these powers are unique. However, the ability to expedite plan changes, provide significant tracts of residentially zoned land, and prioritise infrastructure roll-out has contributed to greater Christchurch appearing on-track to have its housing shortfall "resolved by late 2017" (MBIE & CCC, 2015, p. 2).

Source: CERA, n.d.

The RMA has always made provision for central government involvement and direction in the planning system, in particular through the ability to issue National Policy Statements (NPS) and National Environmental Standards (NES), which Regional Policy Statements (RPS) and District Plans must give effect to. Amendments to the RMA since its introduction have strengthened central government's role, including Ministerial powers to direct changes to plans, require information from councils and "call in" proposals of "national significance". However, these tools have not been used as extensively as was expected, and a number of submitters and other commentators have found central government's actual involvement in the New Zealand planning system to be wanting:

> I think successive governments, both National and Labour-led, failed the Resource Management Act by not providing enough central government guidance on vital matters…Central government did not help by resolutely refusing to provide national policy statements and not using its power to regulate to provide uniform standards in areas where these were needed. (Palmer, 2013, pp. 13 and 15)
>
> One of the undoubted root causes of local government's difficulties with the Resource Management Act has been the lack of central government direction and assistance in its early years; a lack which has only been partially alleviated by the introduction of new programmes (Urban Technical Advisory Group, 2010, p. 16)
>
> A major problem for the NZ planning system is a lack of national planning guidance, to help understand, interpret and deliver on sections 5 to 8 of the RMA at a local level. Most national and regional guidance provides little practical assistance to local government. (Allison Tindale, sub. 8, p. 3)
>
> Greater national and regional planning guidance would provide greater assistance to local government. (New Zealand Planning Institute, sub. 52, p. 3)
>
> Central government has generally not been explicit about what it wants to achieve in terms of land use management or how it wants to 'shape' places. This has led to a separation of planning from implementation and ad hoc and inconsistent decision making. (New Zealand Council for Infrastructure Development, sub. 57, p. 10)
>
> The lack of Government direction to consider one of the most basic needs of all communities – housing, has meant that planning has been carried out on a local basis without the benefit of a national planning standard. (New Zealand Institute of Surveyors, sub. 74, pp. 1–2)
>
> Some would argue that the biggest problem with the RMA is that the effects-based framework works against strategic planning. This raises questions as to (1) whether a policy shift is required and (2) how this can be achieved within the framework of the RMA. Greater central direction may be part of the solution. (LGNZ, sub. 54, p. 6)

Options for greater central government involvement in planning exist on a spectrum, with Ministers developing plans themselves at one end (as occurs in Australia and Canada) and central government having clearly prescribed and limited override powers at the other end. The Commission does not consider that a strong case exists for Ministers to take over developing and approving plans. Some degree of devolution is clearly desirable in planning systems, as the best information about local needs and desires tends to reside at a city or regional level. In addition, many of the costs and benefits of planning decisions accrue to people living within those regions.

Box 9.4 outlines an example of central government guidance to local authorities in the United Kingdom.

Box 9.4 The United Kingdom's presumption in favour of sustainable development

The United Kingdom's National Planning Policy Framework is an example of national guidance for local planning authorities in drawing up plans, and is also to be considered by decision-makers in determining applications. The key part of the guidance says:

> At the heart of the National Planning Policy Framework [NPPF] is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking.
>
> For plan-making this means that:

- local planning authorities should positively seek opportunities to meet the development needs of their area;
- Local Plans should meet objectively assessed needs, with sufficient flexibility to adapt to rapid change, unless:
  - any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or
  - specific policies in this Framework indicate development should be restricted.

For decision-taking this means:

- approving development proposals that accord with the development plan without delay; and
- where the development plan is absent, silent or relevant policies are out-of-date, granting permission unless:
  - any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole; or
  - specific policies in this Framework indicate development should be restricted. (para 14, p. 4)

A 2014 House of Commons Select Committee inquiry into the first two years of the NPPF noted concerns from "local residents, amenity groups and parish councils" (p. 7) arguing that the NPPF was:

- not delivering sustainable development;
- failing to prevent undesirable and inappropriate housing development; and
- giving insufficient protection to town centres against the threat of out-of-town development.

The Committee concluded that:

> It is still early days for the NPPF. Given it represented a major consolidation of planning policy, it will doubtless take several years to 'bed in' fully. We have considered the concerns raised with us about its operation. Many are significant and need to be tackled, but they point to the need for adjustment, rather than a complete overhaul of the NPPF. It would be ill-advised at such an early stage to consider tearing up the document and starting again. (p. 8)

Source: DCLG, 2012; UK House of Commons, 2014.

There is a place for greater use of national guidance. One option would be to use existing national tools in the RMA (eg, NPSs and NESs) to control or offset overly restrictive plans. This would avoid the need for legislative change. However, these tools are arguably too blunt to deal with problems in an individual plan. NPSs and NESs set principles or standards that all RMA plans and policy statements must give effect to, and are therefore broad. The Minister can issue a NPS to state objectives and policies for matters of national significance that are relevant to achieving the purpose of this Act (s52 of the RMA).

There are currently four NPSs:

- National Policy Statement on Electricity Transmission;
- National Policy Statement for Renewable Electricity Generation;
- New Zealand Coastal Policy Statement; and
- The National Policy Statement for Freshwater Management.

Councils must amend their RPSs, and regional and District Plans to give effect to an NPS, and decision makers on plans, policy statements, resource consents and other matters must consider the NPS as part of their decision-making process. It is unclear whether a NPS that emerged from such a process would have

sufficient detail and application to materially alter District Plans. Councils have considerable flexibility over how they give effect to NPSs through their plans and policy statements.

Given the purpose of the RMA, which includes promoting development in a way that enables people and communities to provide for their social, economic, and cultural wellbeing (s. 5), there appears to be scope to consider a NPS on providing adequate land for housing. The Minister must establish a board of inquiry to investigate a NPS, and the Act outlines the process for considering and establishing a NPS.

The process appears to be unwieldy, and some existing NPSs appear to operate at a high level and be subject to considerable interpretation. According to a Ministry for the Environment discussion paper, "it typically takes three to seven years to develop a NPS, and putting it into regional and district plans can take from three to 10 years" (2013b, p. 21). The Commission is interested in submitters' views on a NPS about the adequate supply of land for housing.

Q9.3 Would there be merit in a National Policy Statement relating to the provision of adequate land for housing? What would be the costs and benefits of such a statement?

Stronger Ministerial override powers appear to have more potential. The Housing Accords and Special Housing Areas Act 2013 (HASHA Act) was a step in this direction, creating the ability for the Governor-General to 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, leaving a gap in the legislative framework.[42] In addition, even if they were retained, the HASHA Act provisions probably do not provide enough powers for Ministers to correct plans that consistently fail to provide enough development capacity.

Provided they can garner sufficient support in Parliament, governments have the option of overturning an RMA plan through special legislation. This would have the merits of ensuring that any intervention was subject to scrutiny by the public and all Members of Parliament. However, the time required to pass legislation and the difficulties in getting new Bills onto a crowded Order Paper mean that governments could lack a "credible threat" to encourage local authorities to make changes to unduly restrictive RMA plans.

Under the RMA, the Minister for the Environment already has the power to direct a regional or city council to prepare a new plan or make changes to an existing plan (section 25A). However, this power is limited to requiring changes that address a resource management issue that falls within the specified statutory functions of councils. None of those statutory functions relate to the provision or development of housing. The Minister does not have the power to direct changes to RPSs, but they do have general powers to make recommendations to a council regarding the exercise of its statutory powers and functions (section 24A). As described in Chapter 3, a number of current and proposed RPSs now set rules and criteria for the release of land that District Plans must give effect to.[43] Another option therefore would to be to expand the powers in section 25A to:

- enable the Minister for the Environment to direct changes to plans that consistently fail to provide sufficient development capacity; and
- explicitly include RPSs.

Greater central government involvement in planning is not without risks. The introduction of the Local Government (Auckland) Act 2004 arguably exacerbated Auckland's housing supply problems, by restricting the ability of territorial authorities or the Environment Court to expand the city's Metropolitan Urban Limit and so tightening the supply of land.

[42] The power to establish special housing areas will expire on 16 September 2016, and the rest of the Act will be repealed on 16 September 2018.

[43] For example, the operative Bay of Plenty Regional Policy Statement and the proposed Waikato Regional Policy Statement.

Q9.4 Would there be merit in expanding existing powers in the RMA to enable Ministers to direct changes to District Plans and Regional Policy Statements that provide insufficient development capacity to meet population growth? What would be the costs, benefits and implications of such a move?

9.4 Do councils want their population to grow?

In a presentation to the Treasury in November 2014, Dr Oliver Hartwich of the New Zealand Initiative argued that councils in New Zealand (as well as in Australia and the United Kingdom) lacked incentives to accommodate growth. By contrast, he argued that local governments in Switzerland and Germany benefit financially from population growth. They are therefore not only more accommodating of housing growth, but compete for residents. Hartwich argued that despite the complexity of planning systems in Switzerland and Germany, these financial incentives for local planners and politicians to attract growth have resulted in insignificant levels of house price inflation.

Hartwich's presentation was an extension of his 2005 report with Alan Evans, *Bigger Better Faster More: Why some countries plan better than others* (Evans & Hartwich, 2005).

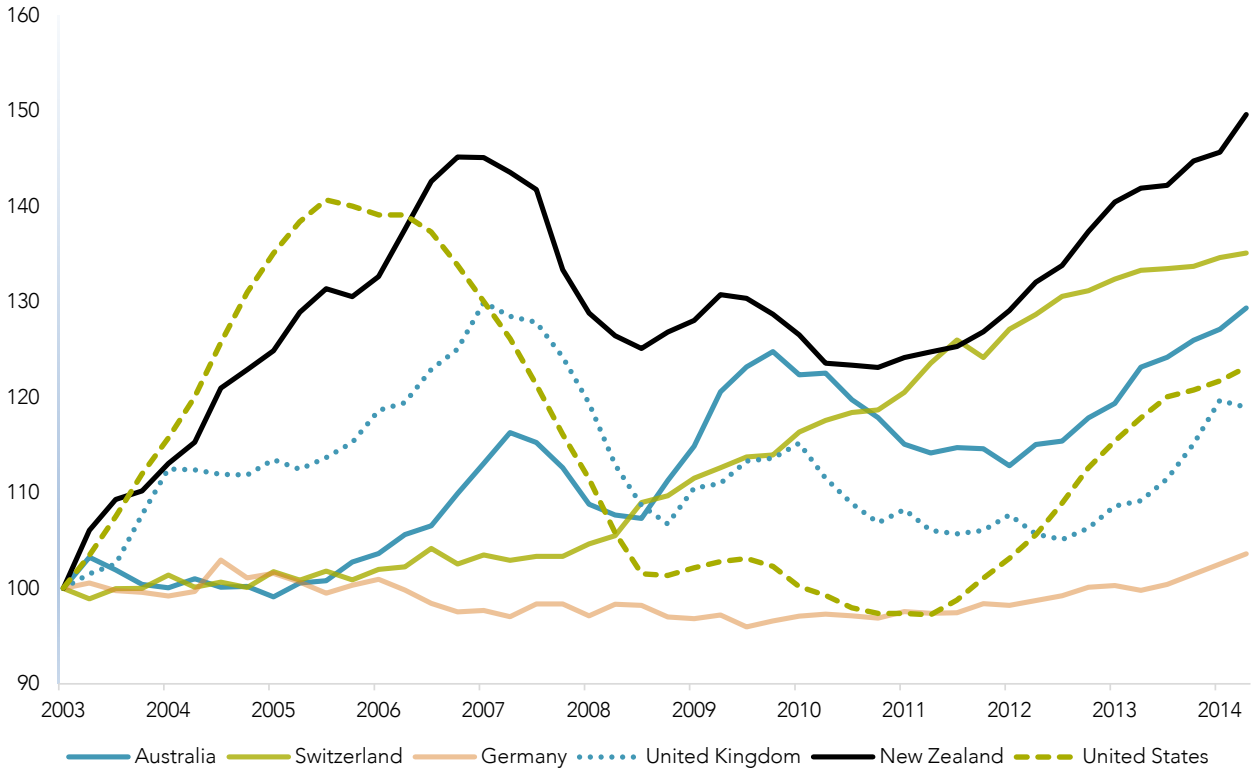
- In Germany, municipal governments receive a 15% share of federal income tax, directly linked to the levels of income tax generated within the municipality, and grants received from state (*Länder*) governments, directly linked to the number of inhabitants in the municipality. In Dortmund, the report outlines, 40% of the city's revenue depended on the local economy's performance, or the number of local inhabitants and the income tax they pay.
- Decentralisation in Switzerland means that cantons and municipalities are largely autonomous in setting their tax systems; together they receive more than two-thirds of Swiss income tax and social security contributions.
- The result is that the attitude of local planners and politicians is welcoming of growth, and growth-enabling infrastructure can be financed from local taxes rather than through development charges.

There is no real house price inflation in Germany, although Switzerland has seen significant inflation in recent years (Figure 9.7). Figure 2.23 shows that the burden of housing costs is still relatively high in Switzerland, although not as large as in New Zealand, and Figure 9.7 shows that the long-run responsiveness of housing supply to changes in price is very low in Switzerland.

Hartwich points to New Zealand's "weak localism" as a major driver of house price inflation in New Zealand.

- Local government spending as a proportion of GDP is the lowest in the OECD.
- New Zealand is one of a small number of countries that raises most local government revenue from property taxes (along with Australia, Ireland, and the United Kingdom.
- New Zealand is unusual in that local government is responsible for an insignificant share of government spending on health, education, social protection, and public order and safety (Hartwich, 2014).

Figure 9.7 House price inflation in selected countries



Source: Productivity Commission based on data from Bank for International Settlements, 2014.

Note:

1. Indexed to 2003 = 100

Hartwich argues that greater devolution of revenue and expenditure to local government could reorient council incentives to welcome and promote growth. A discussion paper from LGNZ makes a similar argument:

> Councils which compete for new inhabitants or new businesses – and benefit from an expanding tax base in doing so – face incentives to keep taxes low. These councils also face incentives to make conditions conducive to the activity they wish to encourage; for example, this might be to ensure local planning allows the right kind of housing or zoning that releases land for higher valued uses or policies that are business friendly. (LGNZ, 2015a, p. 65)

Donald Ellis made 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)

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.

At the same time, the Commission is mindful that many areas of New Zealand are experiencing long-term population decline. These councils would prefer the problem of population growth to the problem of attempting to maintain, or reduce in an orderly way, the level of services they provide to their communities.

F9.9 High-growth councils tend to see accommodating population growth or new housing development as a net cost. The construction of new dwellings increases a council's ability to fund expenditure from rating those properties over time, but overall the direct financial incentives on councils to accommodate growth are weak.

An LGNZ discussion paper on the funding of local government in New Zealand suggests a number of ways to broaden local government revenue sources. The paper discusses taxes or transfers from central government that would have the effect of rewarding councils for population growth or economic activity in their locality. These might encourage councils to have a more positive attitude towards growth.

The LGNZ discussion paper is not the first to investigate the financing of local government, including alternative sources of revenue for councils. The Shand Report (2007) notes the large number of inquiries into local government financing (of which it was a further example):

- 1945 Local Government Committee (parliamentary select committee)
- 1958 Royal Commission on Local Authority Finance
- 1959–1960 Local Bills Committee – Inquiry into the Structure of Local Government
- 1963 Committee on Local Authority Finance
- 1970–1973 Committee to Explore Local Authority Finance
- 1977 Committee on Local Authority Finance
- 1987–1989 Government Review of Local Government Structure and Funding.

The Shand Report also comments that "[a]ll of the reviews have searched for an alternative to rates as a major source of funding. All have concluded that rates were the best system available for the bulk of a local authority funding stream" (pp. 49–50). The Shand Report did not vary from its historical predecessors in this respect.

Linking local government revenue to population growth could help provide local planners and politicians with incentives to be more accommodating of growth. It could also mitigate community opposition to development. This could manifest in more liberal land use regulation, more timely processing of consents, and, in turn, higher levels of residential development. There may be good reasons to reorient a greater share of revenue and expenditure to local government. LGNZ intends to lead a discussion about these issues in the near future.

But fundamental changes to the tax system, such as providing new tax powers to local government, ought to be considered on their own merits from an economy-wide perspective, rather than through the narrower lens of land supply for housing.

Similarly, giving local government responsibility for a greater range of public services ought to be considered in terms of whether that would support the more effective and efficient delivery of those services, rather than to justify providing councils with revenue sources that might make them more welcoming of population growth. In a parallel inquiry into *More Effective Social Services*, the Commission (NZPC, 2015) in its draft report has concluded that the case for large-scale devolution of responsibilities for social services to local government does not appear strong. It would not resolve some significant problems of the current architecture.

Payments for dwellings

If central government wants to see increased construction of dwellings, and local government controls the major influences on dwelling supply, then one option is direct payments to local government for the construction of new dwellings. This is the approach taken in the United Kingdom through its New Homes Bonus Scheme (Box 9.5).

Box 9.5 The UK New Homes Bonus Scheme

The number of dwellings constructed in the United Kingdom in 2009 was the lowest in peacetime since 1924. Government projections indicated that an additional 232 000 homes needed to be constructed each year to meet housing need. In this context, the UK Government set aside £1 billion between 2011 and 2015 to "match the additional council tax raised by each council for each new house built for each of the six years after that house is built".

In addition, a flat rate of £350 a year was provided for each new affordable home. Payments were calculated from the number of dwellings in council tax valuation lists, so the replacement of homes did not attract a payment, but the bonus was payable to empty homes that were brought back into use.

The bonus was funded by top-slicing existing government grants to councils. In this way, it represented a pure transfer from councils that were producing fewer homes towards those that produced more.

The effect of the bonus was contended. A UK Housing Review Briefing Paper (Wilcox, Perry & Williams, 2014) said that the bonus had had little impact on housing supply:

> Measures such as the reformed planning system, the New Homes Bonus and the stimulus packages included in the government strategy *Laying the Foundations,* and augmented in the last Budget, have so far had little impact on new housing supply. (p. 3)

A 2013 UK National Audit Office review of the scheme found "little evidence that the Bonus had yet made significant changes to local authorities' behaviour towards increasing housing supply, and that the evidence suggested the scheme "mainly rewarded home creation that was not incentivised by the Bonus". The review stated:

> It is not possible to separate out the impact of the Bonus from other policies and wider factors affecting housebuilding. Neither is it possible to robustly assess what the housing supply would have been without the Bonus. (p. 20)

In 2014 the Department for Communities and Local Government (DCLG) published a long-awaited formal evaluation of the scheme. It found that the scheme provided "a clear financial incentive for authorities", and that payments were "largely matching the distribution of housing need, though there were some areas of mismatch, in particular for London authorities" (pp. 2-3).

The evaluation reported that 40% of planning officers agreed the scheme had made local officials and politicians more supportive of housebuilding; but only 10% considered that it had increased support for new homes in the wider community. The evaluation unable to clearly establish the effect of the scheme on new home construction:

> There are other challenges in being able to isolate the potential impact of the Bonus specifically on attitudes and behaviours and subsequent housing outputs. There are a wide range of factors which, over the period of the evaluation, will also be influencing attitudes and behaviours. These include the state of the economy and housing market, wider planning reforms, house builder confidence and changes in the state of local government finances amongst others.
>
> … As we are only four years into the programme the full effects of the policy are yet to be seen. (pp. 12-13)

Source: DCLG, 2014; Wilson, 2015.

The evidence from the UK New Homes Bonus Scheme does not provide support for the idea of direct payments for dwelling construction to incentivise behaviour changes.

- Only a minority of planners considered that it increased a council's incentives towards new housing construction.

- Councils that had a generally negative approach to residential construction, but much activity, could benefit (eg, councils that declined permission for dwellings, but were overturned on appeal, still received the bonus).
- It did not appear to increase community support for housing construction.
- The deadweight costs were significant – the vast majority of new homes attracting the payment would have been constructed anyway.
- No evaluation or review has been able to identify the effect of the scheme in terms of housing supply (Wilson, 2015).

The effect of a home bonus might be different in a New Zealand context with different policy settings – in particular, if the scheme attracted new money rather than merely redistributing existing transfers to local government. A scheme could be structured to provide bonus payments for dwellings above a certain threshold, to reduce the deadweight costs involved. But the UK experience does not provide evidence that any new money would be directed towards funding growth-enabling infrastructure, because it appears not to have an effect on the attitudes of the local community towards residential growth. As a result, the UK's New Homes Bonus Scheme shows insufficient benefits to recommend it as a policy worth pursuing in New Zealand.

F9.10 Evidence so far from the UK's New Homes Bonus Scheme does not support introducing central government payments to councils for new dwelling construction.

9.5 Land banking

Land banking is 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 or underdeveloped; and the land may be held in anticipation of future development opportunities or for as long as the most profitable use is unclear (which may be because of uncertainty about planning regulations (Evans, 2004).

Land banking is a type of speculation, although neither phrase should hold pejorative connotations. Speculators play an important role in markets, providing liquidity and inducing production where there is demand, at their own risk. In an unregulated land market, supply is fixed by natural geography ("they aren't making any more of it"). But when shortages of land for a particular use exist, speculation can signal that the use of land for that purpose (such as housing) is a higher value use. This induces the switch of land from other uses to housing. Importantly for this inquiry, in a regulated land market the effective supply of land is fixed not by natural geography or the market, but by the regulator – in New Zealand, by local councils.

In its 2012 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" (p. 118). In this inquiry, the Commission has considered the factors that cause owners to withhold vacant land from development – principally expectations of future price growth – and how owners can be encouraged to release or develop it.

As explained in Chapter 2, land parcels are heterogeneous 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 so as not to affect the price by creating a local oversupply.

While the heterogeneous nature of land parcels and limited competition among landowners can make land more expensive and generate economic rents, developers can also be constrained in their ability to substitute between the inputs into the production of housing, which prevents them from using land

resources more efficiently. Typically the purchase of land comes with a set of ownership rights,[44] 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. While this would reduce the development potential of any one site because of restrictive limits on its use, such restrictions overall serve to reduce the number of dwellings that can be built and so increase the price of all land parcels.

Mayer and Somerville (2000b) argued that residential construction does not respond to the level of real house prices, but their rate of appreciation. Given that dwellings are reproducible and construction costs are reasonably stable and not greatly affected by housing demand, it is the capital gains in land that drive residential construction volumes. Ball (1988) argues that capital gains on land purchased for construction of dwellings are the main source of profit for UK housebuilders, and that this has caused the industry to neglect investing in technology, design and skills (which are more important in markets with stable house prices such as Germany). Muellbauer and Murphy (2008) go further – if the main source of profits for builders is capital gains on section prices in the time between the land is purchased by the builder and the dwelling is built and sold, then this can actually be counterproductive in terms of the supply response. Where builders see larger than expected capital gains over three years or so, they may expect lower than expected gains over the next three years (because of trend-reversion or housing cycles) and reduce supply accordingly.

Is land banking a problem?

Zoning and connecting developable land to infrastructure does not ensure that the land will be developed for housing. The practice of holding land back 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 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. They 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 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:

[44] 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.

> 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)

Land banking is a rational practice in the face of expected future land price growth. The pattern of land banking is different across New Zealand cities.

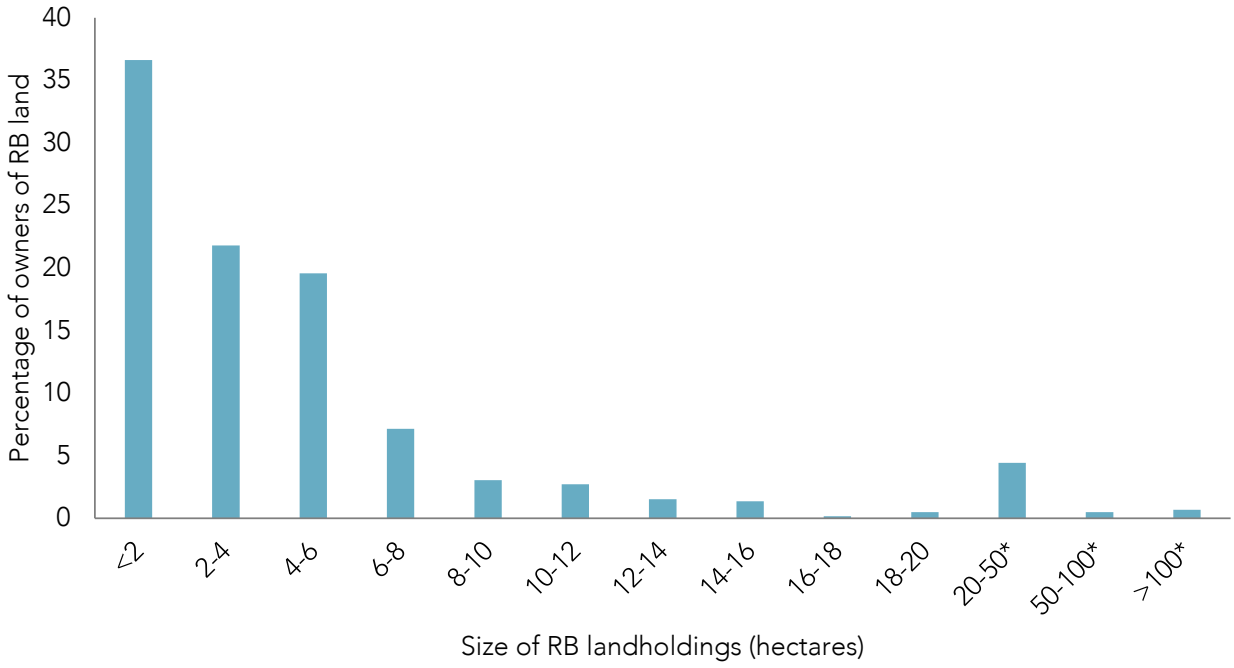
Auckland

Auckland Council's *Capacity for Growth Study 2012* (2013e) identified 5007 vacant residentially zoned sections within already built-up areas of the city, of which 3 238 had been vacant since at least 2006. A subsequent study by Memon and McFarlane (2014) interviewed 29 owners of those long-term vacant sections. While the majority of owners indicated an intention to develop or sell the land in the future, they identified a range of explanations for why the land was vacant, and identified perceived barriers to development. These included the rising costs of building, costly and time consuming council processes, access to finance, lifestyle reasons, and the future capital gains available by land banking. The authors conclude that

> [t]he alternatives of land banking and land speculation appear much more appealing 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. (Memon & McFarlane, 2014, p. ii)

Analysis of the Auckland Council District Valuation Roll shows that there are 12 013 individual vacant sections suitable for a single dwelling. It also shows that most of the land that valuers consider to be "bare or substantially unimproved land, which is likely to be subdivided into dwelling house sites" (this is coded "RB land" (Land Information New Zealand, 2010, p. 64.)) is held by a very large number of owners rather than concentrated in a small number of hands (Figure 9.8).

Figure 9.8 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".

This graph 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 Hobsonville's density of 18 dwellings a hectare, and assuming that the landholdings are contiguous (which in many cases will be unwarranted), 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 build at least 360 dwellings, and only one landowner of RB land has a total holding that is as large as the area of the Hobsonville Development.

The total bare land in Auckland that is considered suitable for subdivision for housing covers approximately 3 600 hectares. 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).

This means that although individual owners may have an incentive to hold undeveloped land in anticipation of future price rises, in Auckland developable land is not held by a small number of owners who are able to dominate the market.

F9.11 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. They say:

> 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 else they lapse. The March 2015 MBIE & Auckland Council report on the housing accord states that consents for 747 dwellings/sections have been approved.

At present, it is difficult to evaluate whether the lack of building is 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 1990's as the Council has refused to enable any more leapfrog development. (Philip Hayward, sub. 41, pp. 62–63)

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, combined with a regulatory environment that is more enabling of secondary units (granny flats/house and income units), and both medium-density and high-density dwellings. Wellington City Council submitted that 77% of their new dwellings are infill, medium-density, or central city apartments (sub. 22).

Christchurch

In Christchurch the Commission was pointed to the 4.5 hectare vacant ex-Addington Sales Yards as an example of land banking that frustrates the local council (Box 9.6).

Box 9.6 Addington Sale Yards

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Between 1874 and 1997 the Addington Sale Yards adjacent to Hagley Park was the hub of Canterbury's livestock trading. When the sale yards 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.

F9.12 Land banking is occurring in many urban areas of New Zealand. Land banking need not require a dominant market position, only that the expected increases in land value are greater than the holding costs of 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".
>
> … 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)

Glaeser (2013) reviews a series of real estate "convulsions" in the United Sates from the 1790s to the "Great Housing Convulsion" that precipitated the recent Global Financial Crisis. 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 land banking, 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. … 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 inelastic – it is in practice entirely controlled by local councils through land use regulation. If those regulations change, such that developable land is no longer scarce and expectations of future increases in land prices are undermined, then much land banking will cease to be a reasonable and rational practice. Some sites may be of unique amenity where an owner might continue to land bank, but most landowners would not continue to expect future increases in land values and would face far stronger incentives to develop.

F9.13 Land banking is a symptom, rather than a primary cause, of land supply constraints. In New Zealand those constraints are the result of local regulatory and investment decisions.

The best way to tackle land banking is to increase the amount of land available for development and the amount of development that can take place on land through more permissive land use regulation, and removing barriers to servicing land with infrastructure. Where developable land is no longer seen as scarce, owners will see less value in holding it.

Holding costs on land

Increasing the cost of holding undeveloped land can also encourage owners to develop or release land. Holding costs are the costs of carrying land, including the cost of finance and rates. Some studies include other costs like acquisition costs and developer charges as holding costs. But as these are one of costs that accrue regardless of when development occurs, they are not properly holding costs.

Because land development is a commercial enterprise, good information about holding costs is hard to obtain. Various developers have offered to provide to the Commission in confidence information about costs of development (including holding costs), but are unwilling for it to be quoted because of commercial sensitivities; it is also difficult to verify independently.

The literature on holding costs typically describes the effect that delays in approval processes have on planned development. Box 9.7 provides some estimates of holding costs.

Box 9.7 Some estimates of the holding costs of land

- Todd Properties submitted to the Commission's 2012 inquiry that a six month delay added $30 000 to the cost of an apartment.
- One paper described a series of case studies of developments in Queensland, and found holding costs to be typically A$15 000 a lot, with modelling suggesting that a six month delay in receiving approval cost the equivalent of A$5 000 a lot (Garner, 2012).
- Developers reported to Grimes and Mitchell that "in the more extreme cases the delay in obtaining consent added more than 3% to the total costs associated with the project" (2015, p. 38).
- The submission from Registered Master Builders said that a delay of 18 months added holding costs of $15 000–$20 000 for each unit in a 10 townhouse development (sub. 23).

Source: Garner, 2012; Grimes & Mitchell, 2015.

The holding costs of land which is held as an investment (ie, land that is banked) are effectively the same: as financing costs and council rates. But the literature has little discussion on the impact of holding costs during a time of significant increases in land value.[45] Holding land will be rational as long as expected land value exceeds the discounted stream of expected holding costs. Given current council regulatory policies, the widespread expectation is that land will continue to increase in value in Auckland; and the costs of holding land are particularly low at present given current interest rates.

The assessed value of bare land suitable for subdivision in Auckland increased by 93% from 2011 to 2014. In this context, any reasonable estimation of holding costs is unlikely to dissuade those who can from continuing to carry land.

F9.14 The holding costs of land, including rates and financing, are low relative to Auckland's current rapidly inflating land values.

[45] Land zoned "residential" in Auckland in 2014 was valued on average 49.5% more than it had been in 2011; land zoned "residential" in Wellington in 2012 was valued on average 0.1% more than it had been in 2009.

9.6 Options to encourage the development of land

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

- the valuation basis of councils' general rates;
- land taxes;
- tax breaks for development; and
- charging rates on Crown-owned land.

Valuation basis of general rates

Council rates are a type of property tax, levied on land value or the value of land and improvements, augmented by various rating differentials and targeted charges. In its 2012 report on *Housing affordability*, the Commission noted that local rates are simple, broad-based and relatively efficient. The Commission did not consider rates to be a significant influence on housing affordability (although noted they could cause strain for homeowners with limited incomes).

For Councils, decisions about the valuation basis of rates are a way of allocating a fixed revenue burden across ratepayers in their community. They naturally seek to do this in a way that maximises the ability of ratepayers to pay their rates, and produces the least amount of hardship or objection. But councils do not appear to place much emphasis on the other effects of choosing between different valuation bases for rating, including the effects on landowners' incentives to release land for housing.

New Zealand is unusual in giving local authorities the ability to choose the basis on which they levy property taxes (rates). Since 1896 councils have been able to choose between:

- capital value, being the value of land and improvements;
- annual value, which is the greater value 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).

The option of rating based on land value was new in the 1896 legislation, and until 1976 councils could not switch to land value without a referendum, 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 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. Hamilton City Council has recently decided to shift from land value to capital value.

Auckland Council's Housing Action Plan (2012d) 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).

In its issues paper, the Commission noted that rating based on land value, rather than capital value, could be expected to encourage land improvement, including the construction of housing, and could discourage the

holding of unimproved land. Hamilton City Council's recent adoption of capital value rating provides an illustration of the potential impact (Box 9.8).

Box 9.8 Hamilton City Council's shift from land value to capital value rates

Hamilton City Council's document proposing a shift from land value 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 from $1 161.07 a year to $2 028.07 a year.

Source: Hamilton City Council, n.d.

Land taxes and land value rating

The idea of a tax on the value of land was popularised in the 19th century by Henry George, and is supported by many economists because of its efficiency:

> 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 passed on and would be borne by land owners at the time the tax is announced. (IRD and New Zealand Treasury, 2009, p. 2)

Land value taxes are extremely efficient because they cannot be avoided, or passed on. They are particularly attractive in the context of this inquiry in that they encourage (or rather, do not discourage) improving 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)

This is supported by modelling undertaken by Brueckner (1986) and DiMasi (1987) which 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)

Not everyone agrees. Covec (2007) reports:

> Some commentators claim that, unlike land value, capital value and annual value create disincentives to develop land or improve buildings. While this may be true (at least in theory), I doubt its practical significance. The incremental effect on rates of improving an existing building would be very minor. (p. 37)

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).

The Commission disagrees. Choice of valuation base for rating does provide an effect at the margin that encourages either holding or developing vacant land. In the context of the holding costs described above, the effect of the rating changes in Hamilton is small but real. If carrying costs for a vacant section are assumed to be about $10 000 a year (see Box 9.7), then an $850 increase (as in the Nawton section described in Box 9.8) increases holding costs by 8.5%.

Capital value rating, compared to land value rating, does tend to increase the rating burden on denser dwellings, and make it more affordable to carry undeveloped, and underdeveloped land. IRD and the Treasury in their briefing to the 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 this sort of tax is increasingly favoured by councils in New Zealand's fastest-growing urban areas: a rating methodology that raises housing costs, discourages development and reduces investment in housing.

F9.15 The use of capital value rating systems makes it marginally less expensive to carry undeveloped and underdeveloped land. The use of land value rating systems would encourage land flowing to its highest value uses, including more and denser housing.

Why has capital value rating been increasing?

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.

Ability to pay

The major benefit cited for capital value rating was its 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).

This criterion was strongly weighted by the Shand Report. Comparing meshblock income against the land value and capital value of properties in meshblocks, the Shand Report found a slightly better fit between income and capital value than income and land value, and so considered capital value to be more progressive. However, in the Commission's view too much emphasis was put on the slightly greater variance in the relationship between income and land value. The relationship is strong for both comparisons, and the Covec report (2007), from which the Shand Report draws its analysis, does not conclude on the basis of these two comparisons alone that one should be considered more progressive.

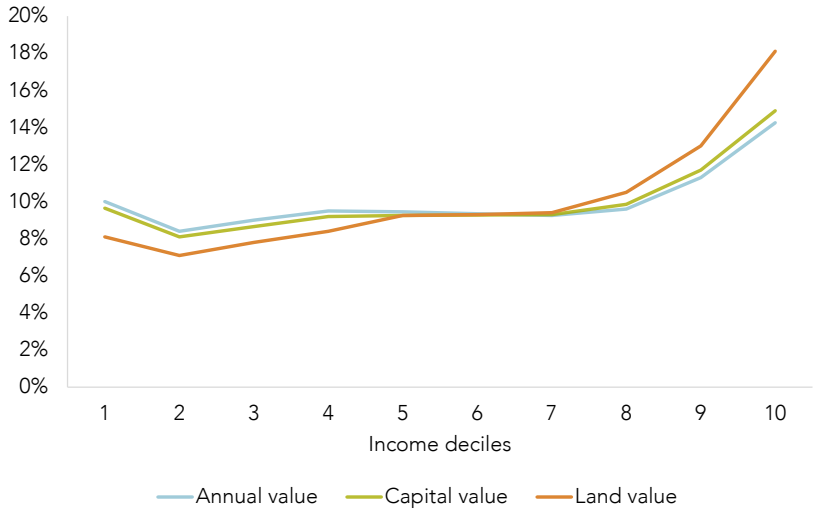
In fact, when Covec plots that data against income deciles under each valuation system, it comes to the opposite conclusion to the Shand Report:

> [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 9.9 from the Covec report illustrates this point starkly. 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 9.9 Distribution of property values across income deciles



Source: Covec, 2007.

The graph indicates the share of property values, under each valuation types, 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 mean land value is a more progressive valuation base for rating purposes, and a better fit for ability to pay.

This conclusion is also supported by a 2004 study by Kerr, Aitken & Grimes and a 2006 study by McCluskey et al. McCluskey et al. 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 reason for these findings is intuitive: high-income people tend to live in desirable parts of town, where land is more expensive and, although their homes are also more valuable, the land value effect is stronger. Based on the analysis of Covec, and that of McCluskey et al., land value rating systems are better than capital value rating systems against an ability to pay criteria, and are a more progressive form of rating.

F9.16 Rating based on land valuation appears to be a better proxy for ability to pay than rating based on capital valuation.

The Shand Report (2007) noted the particular public concern around the ability of asset-rich, cash-poor ratepayers, many being retired. However, it was satisfied that adequate policies were in place to mitigate these concerns:

> However, there are three key measures that can potentially provide assistance to these ratepayers. First, there is central government's rates rebate scheme. Second, councils may have rates postponement and remission policies. Finally, property-based equity can be drawn down using equity release schemes. (Shand Report, 2007, p. 127)

LGNZ (2015a) notes that take-up of these schemes by ratepayers has been low. They report that in 2007 only 46% of eligible ratepayers took advantage of the rates rebate scheme, in which the government covers part of the cost of rates paid by low-income ratepayers. They reported no significant increase since then.

Some councils, including Auckland Council, offer rates-postponement schemes so that residents aged over 65 can accrue the cost of rates against the value of their estate, to be repaid when the property is sold. A typical arrangement might be to charge interest at the council's borrowing rate plus 1.25% (to cover administration costs and bad debts), plus a one-off application fee of $200–$300 and a yearly charge of $50. However, different councils have different eligibility criteria.

Councils told us that, in general take-up of this is also low, and that, where residents are eligible and participate in the rates-postponement scheme, it works well for both the ratepayers and the council.

A low level of participation in these schemes may indicate a lack of awareness of these initiatives, that the problem of retired people struggling to pay rates is not as great as may be thought, or that the combination of interest and charges makes them unattractive.

The choice between land value rating or capital value rating does not itself affect asset-rich, cash-poor ratepayers differently to any other ratepayer. However, to the extent these ratepayers own valuable land that could carry more development, land value rating provides an incentive for this land to be developed in due course. In the case of retired people, rates-postponement schemes mean that this need not occur during the ratepayer's lifetime, unless they choose to sell or develop the land themselves.

F9.17 Central government rates rebates, local government rates-postponement schemes and private reverse-equity loans provide mechanisms to assist asset rich but cash poor ratepayers to pay rates.

Reliability of valuations

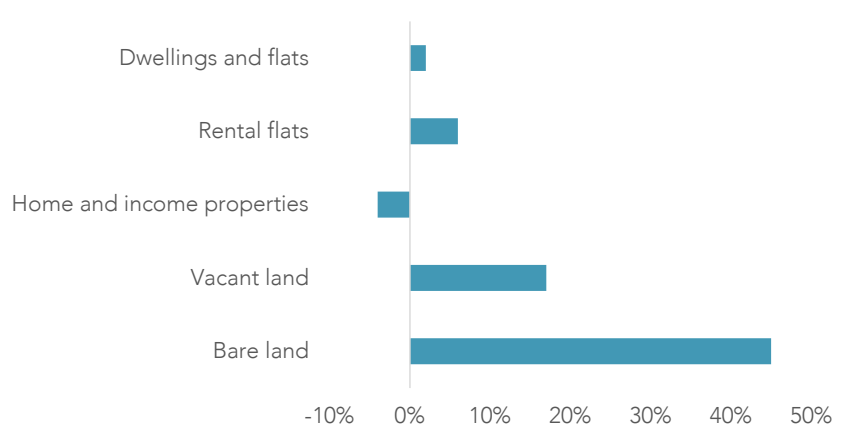
Another reason commonly cited in favour of capital valuation is the relatively better data that underpins capital valuations, because fewer sales of bare sections reduce the ability of valuers to gauge land values. Annual value rating is better still, because the compulsory lodging of tenancy bonds provides highly accurate information about market rents.

The Commission has not found good evidence that land valuations are less reliable than capital valuations. One piece of evidence is from a 2007 report by Covec (Box 9.9).

Box 9.9 Some evidence on the reliability of land valuation

Covec analysed the sales data for an unnamed large city, comprising 17 824 sales over 22 months. They compared average sales price to average valuation, and found large differences.

Figure 9.10 Comparison of actual sales prices against assessed values in one New Zealand city



Note:

1. "Vacant land" means a section on which a single dwelling could be built. These are likely to be a vacant section in an otherwise built-up area. "Bare land" is land that is ready for subdivision into sites for a number of dwellings. These are likely to be greenfield sites on the fringe of the city.

The time period over which the sales took place is not stated. Nor is the city to which the data refers. The report is from 2007, but the data might be older. Without knowing how close the data was to the end of the last housing boom, or to the most recent valuation update, it is difficult to interpret the data. However, it appears to show that vacant sections and bare land suitable for subdivision was undervalued for rating purposes compared to their market price in the sample studied.

Source: Covec, 2007.

If land values are less likely to be accurate than 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. For example, 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, 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.

Q9.5 What reason is there to think that the variance around assessed land values is different to assessed capital values?

For example, if vacant or bare land is systematically assessed at a lower value than its market price, then it has different implications depending on the rating model a council adopts.

- Under a capital value rating system, this is likely to result in owners of vacant and bare land paying lower rates than they should, and owners of sections with dwellings paying more than they should, if rates were based on market values rather than assessed values.
- Under a land value rating system, the land value component of improved properties is inferred in part from the assessed value of nearby vacant land. The systematic error in valuing vacant or bare land does not lead to owners of vacant or bare land paying less than they should, if rates were based on market values rather than assessed values.

It is commonly argued that the valuation of land is less reliable than the valuation of sections with dwellings on them. But this does not necessarily mean that capital value rating should be preferred to land value rating. In fact, if all land in a territorial authority is undervalued, 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.

F9.18 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. Covec puts the argument neatly:

> 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). (2007, p. 36)

As 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. Chapter 6 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 a fair allocation of cost.

Councils may choose to fund a range of other services largely or wholly from rates, such as libraries, parks and reserves, swimming pools, street lighting, community halls, and flood protection. The reasons for this are various and include because of their public good nature, because of difficulties identifying beneficiaries or charging them, or for political reasons. To examine which rating system best matches the benefits received by ratepayers, who benefits from these services must be understood.

The Commission has outlined in Chapter 2 how these benefits 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 council 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 does 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. 56)

Indeed, as noted in Chapter 2, the impact of amenities and services on land prices decays as distance increases. The value of parks decays 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 of this, land value rating is a better fit for benefits received by the ratepayer than capital value.

F9.19 Because the benefits of desirable council services (such as parks) are capitalised into land value, owners of undeveloped land also benefit from these services. As a result, land value rating provides a better match for benefits received than capital value rating.

Summing up: how should general rates be set?

Capital value rating acts as a tax on development. 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 ratepayers who benefit from capital value rating within a territorial authority – again, existing homeowners. These are good reasons to prefer the use of land value as the basis for general rates.

In the Commission's view, none of the arguments commonly made in favour of rating on the basis of capital value are strong.

- *Ability to pay* – good evidence exists that land value provides a better fit with ability to pay than capital value, because high-income people tend to live in areas where land prices are high.

- *Reliability of valuation* – the evidence that land valuations are less reliable than capital valuations is inconclusive, but if land is systematically wrongly valued, the distortionary effects of this on the distribution of the rating burden may be greater under a capital value rating system than a land value rating system.
- *Benefits received* – increased deployment of user charges is the best way of funding a number of council services. Other services are more difficult to fund this way. The value of those services is capitalised into land prices. Owners of vacant land and owners of land with dwellings both benefit from the availability of these services through higher property values.

Commenting on an article in *Planning Quarterly* that outlined Memon and McFarlane's 2014 study of long-term vacant land in Auckland (discussed in section 9.5), one member of the New Zealand Planning Institute wrote:

> The simple reason why capital value based rates automatically increases urban land vacancy rates is that it significantly increases speculation in vacant (and low value/slum) land as the PQ article demonstrated.
>
> Unlike land value based rating systems (which most New Zealand cities once used) where owners with vacant land have to pay the same taxes as those with fully developed land, under a capital value based system there is no incentive on owners with vacant or low value land to develop and utilize it right away. Investors can afford to hold onto such land for long periods until they find a significant economic reason to do so.
>
> The USA has used capital value based rates for a very long time. Anyone who has visited the States knows that around the periphery of all American cities and towns is a ring of slums and out in residential areas there is a great deal of vacant subdivided but undeveloped residential land. In large cities centres there are numerous "inexplicable" ground level parking lots among the high rise buildings. These are all classic signs of the land use impacts of a capital value rating system. (Wells, 2014, p. 6)

The effect on land supply of rating on the basis of land value may not be great, but together with other recommendations it 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.

F9.20 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 efficient use of land. Arguments used to prefer capital value rating are not strong.

Given the apparent significant benefits from councils' rating on the basis of land value rather than capital value, the Commission is interested in understanding what the costs and barriers would be to requiring all councils to adopt this valuation base. Providing a common rating system based on land value for general rates would require amendments to the Local Government (Rating) Act 2002.

Q9.6 What are the costs and barriers for a council in transferring from a rating system based on capital value to one based on land value?

An idle land tax

A number of submitters recommended that councils should have the ability to levy special rates on vacant properties – an idle land tax:

> When a developer seeks a land zone change from rural to residential the entire land area should have to be developed and marketed in full within three years to stop land banking. This can be achieved easily by determining the level of rates that would be paid for the potential section yield and levying those rates in full immediately. (Wilson Penman, sub. 1, p. 2)
>
> Perhaps a premium could be loaded on to vacant sections? … It might not be impossible to introduce a differential that would incentivise early development (this may need to be checked for compliance with rating principles – would be called an idle-land tax in some countries). (Tasman District Council, sub. 25, p. 6)

Idle land taxes are common in East Asia and parts of the developing world. The Philippines has a tax on land which is idle, non-agricultural, and greater than 1000m² within cities of up to 5% of the assessed value. 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) conclude that such taxes are rarely effective.

By further increasing the cost of holding vacant land, such a tax would encourage owners to develop land or sell to those who will develop it. Legislative change would be required to introduce such a tax, or to provide local authorities with the power to set one in their district.

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. The Commission is interested in submitters' views on the potential for an idle land tax to encourage the development of vacant land.

Q9.7 Is there merit in providing councils with the ability to levy special rates on vacant properties – an idle land tax?

Tax breaks

An alternative to taxing idle land to encourage development would be to provide tax breaks ("rates holidays") for land that is developed.

Since 1971 New York City has provided property tax exemptions to newly constructed multi-unit dwellings under a programme called 421a. The scheme is complex, offering exemptions for between 10 years and 25 years depending on location and the proportion of units that are considered to be affordable to middle-income or low-income families. The costs of the programme are borne by non-exempt property owners, who effectively subsidise the construction of eligible dwellings.

The long duration of the exemptions has seen growing concerns about the cost of the programme (in terms of foregone revenue) (New School for Public Engagement, 2014). In 2006 the lost revenue was reported to be US$300 million a year, up from US$130 million in 2002. Some 251 000 dwellings have been constructed and received tax exemptions under the programme (New School for Public Engagement, 2014). In 2003, the estimated subsidy for an affordable unit built through the programme was US$91 000 (New York City IBO, 2003).

No modelling exists of what construction would have occurred in the absence of the subsidy, but some 60%–65% of residential construction in New York City occurs without receiving tax exemptions (Pratt, n.d.). Most of the construction that received the exemption was market-rate dwellings; only 7% of dwellings were considered affordable to low-income or moderate-income families (New York City IBO, 2003). The public appears to be becoming increasingly dissatisfied, as the scheme is perceived to benefit wealthy developers without delivering affordable housing.

No good case appears to exist for considering such a scheme in New Zealand, given existing concerns about councils' access to revenue and the likely deadweight costs of subsidising construction that would occur anyway.

Rates on Crown land

Wellington City Council submitted to the inquiry that:

> Central 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 tracks 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 purpose; 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 9.2).

Table 9.2 Arguments for and against exempting Crown land from rates

Argument for exception	Argument against exception
Properties are held for a public good purpose (that is, they are meeting some national good purpose).	Activities on non-rateable land such as hospital 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 sustain 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 also, can also addressed this.

Source: Adapted from Shand Report, 2007, pp. 232-236.

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 exception for properties owned by the core Crown does not appear to be justifiable.

F9.21 The rating exemption on core Crown land does not appear to have a principled justification.

Chapter 4 discusses the desirability of using 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 should in principle 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 1030 hectares of land worth $925 million (around 3.5% of the city). As outlined in Tables 4.2 to 4.4, 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 4 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 agencies.

In theory, capital charges 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, although these agencies are also supposed to face higher asset management standards[46]. 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 agencies think harder about whether maintaining their holdings is in the public interest.

F9.22 Removing the rating exemption on land owned by the core Crown would encourage the government to undertake more active monitoring and management of its land holdings, and to release un-needed land suitable for residential development.

[46] 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; the Inland Revenue Department, NZ Customs Service, NZ Defence Force, NZ 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).

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, and 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.

R9.1 The Treasury, in consultation with the Department of Internal Affairs, should investigate removing the rating exemption on land owned by the core Crown, including on land used for health and education purposes.

9.7 Conclusion

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 large (eg, Stigler, 1971; Posner, 1974). Regulations may claim to protect the public; instead they protect concentrated, incumbent special interests.

Many features of land supply regulation exhibit these features. They may be described as promoting amenity, character, productive agricultural land, the environment, or public health. But many decisions of local government, including the land use regulations discussed in this report, effectively protect the interests and wealth of those who already own housing, at the cost of those who do not.

The Commission's 2012 *Housing affordability* report suggested that the number of intermediate renters in New Zealand was indicative of "missing rungs" on the housing ladder. Equally it could now be argued that entirely through rational self-interest, existing homeowners – through local politicians and planners – have effectively pulled the housing ladder up behind them.

There are a range of small policy measures that would encourage the release of more land for housing. However, addressing the scale of the problems identified, particularly in Auckland, is likely to require a more coordinated response, as discussed in the next chapter.

10 Planning and funding our future

Key points

- The shortfall of dwellings in Auckland is in excess of 30 000, and continuing to grow each year. Large-scale developments in both greenfield and brownfield areas are needed to overcome the magnitude of the challenge.
- Housing Accords and Special Housing Areas seek to address one of the significant challenges identified in this report: slow and overly restrictive planning processes. However, they do not address other significant barriers to large-scale developments, including land assembly and infrastructure financing.
- The largest developments in Auckland – Hobsonville, Three Kings and Stonefields – have been able to repurpose large brownfield sites. But there are few such sites left. Most greenfield landholdings are small and will not support development on the scale that is required to address current shortfalls.
- Coordination failures in land assembly are inhibiting large-scale developments in greenfield or brownfield sites. Given the significant social and economic harms caused by the current housing situation, a good case exists for compulsory acquisition powers to assist in the assembly of sites for large, masterplanned developments.
- In many other countries urban development authorities play an important role in urban regeneration and residential growth strategies. They can partner with private sector developers to remove regulatory risk and bring "shovel-ready" land and dwellings to market. They can also support the development of a residential construction sector that is able to operate on a scale that can generate efficiencies.
- Where councils rezone rural land for urban or residential use, large increases in value can accrue to landowners. The community should have some expectation of capturing at least some of that gain.
- An urban development authority would play a valuable role at the intersection of these challenges, assembling land, capturing increases in land value that result from rezoning for recycling into growth-enabling infrastructure, and coordinating development on the scale required to address current land supply and housing shortages. The Commission is interested in views on the appropriate design of an urban development authority.

10.1 Introduction

Given current regulations, the market or existing government initiatives show little evidence that they will deliver the number of dwellings required to meet New Zealand's, and particularly Auckland's, growing population (see Figures 2.9 and 2.10). The scale of shortage in some settings, and especially Auckland, and the complexities in land use regulation, indicate a need for bigger steps.

The Commission considers that a range of actions would improve the supply of land for housing (Table 10.1).

Table 10.1 Selected recommendations from previous chapters

Chapter	Recommendation
Chapter 3: Integrated Planning	• Local authorities' targets for infill and intensification should take better account of commercial viability • Cities should have the ability to develop spatial plans that integrate transport and other infrastructure planning with land use regulation
Chapter 4: Processes for supply and release of land	• Local authorities should express land-supply targets in terms of zoned and serviced land, and report publicly on their performance • Local authorities should monitor dwelling completions and net changes in the dwelling stock • The Ministry of Business, Innovation and Employment (MBIE), Statistics New Zealand and councils should work together to improve the quality of official statistics available • MBIE should inventory public land holdings in high-growth cities to identify sites that could be used for housing • MBIE and the Ministry for the Environment should, in due course, review Independent Hearings Panels to assess whether they should be a permanent feature of the planning system
Chapter 5: Regulations and approval processes	• Councils should remove balcony/private open space requirements for apartments • Councils should review minimum apartment size rules, with a view to removing them • Councils should remove minimum parking requirements • Councils should undertake robust cost-benefit analysis before introducing building height limits, and should remove current limits where benefits do not outweigh costs • Councils should remove controls on the design and construction of dwellings in District Plans that exceed Building Act standards • Government should clarify the importance of housing and urban environments in amendments to the Resource Management Act (RMA) • Councils should move more residential land uses into permitted or restricted discretionary status
Chapter 6: Planning and delivering infrastructure	• Councils should prioritise the development of up-to-date asset management information systems, upskill staff to use them effectively, and integrate information from the systems into decision-making processes • Councils should make greater use of user charges where this can reduce demands on infrastructure • The Land Transport Management Act should allow pricing on existing roads where this enables effective network optimisation • Developments with consent should be exempted from changes to infrastructure standards, or compensated for costs incurred
Chapter 7: Paying for infrastructure	• Evaluation of the financial prudence and reporting regulations should monitor how they affect councils' ability to provide growth-enabling infrastructure • If smaller dwellings impose lower costs on the infrastructure network, this should be reflected in lower development contributions • Developers should be able to request, and Councils should be obliged to consider, the use of targeted rates to fund infrastructure in new developments

Chapter	Recommendation
Chapter 8: Governance of water and transport infrastructure	• Auckland Transport's and Watercare's Statements of Intent should include performance measures relating to the efficient roll-out of infrastructure to new dwellings • Watercare's infrastructure growth charge should reflect marginal costs, rather than being a flat charge
Chapter 9: Shaping local incentives	• The Treasury, in consultation with the Department of Internal Affairs (DIA), should investigate with a view to removing the rating exemption on Crown land

Even so, significant challenges remain.

- The magnitude of the shortfall in dwellings in Auckland is not being eroded; rather, it is continuing to grow.
- The local political economy suggests that improvements to land use regulation, and a sufficient commitment to infrastructure funding, will be difficult to realise.
- Enabling development to occur at scale is a significant problem.

The development at Hobsonville will realise around 3 000 new dwellings, and will take more than a decade to plan and complete. But Auckland has an existing shortfall of as many as 32 000 dwellings (see Figure 1.5), and requires a further 13 000 dwellings a year to accommodate new growth. This is the equivalent of eleven more Hobsonvilles immediately, and a further four completed every year. The market alone will not address these challenges; a greater degree of public leadership and equity participation in development is likely to be required.

What Housing Accords and Special Housing Areas do and do not address

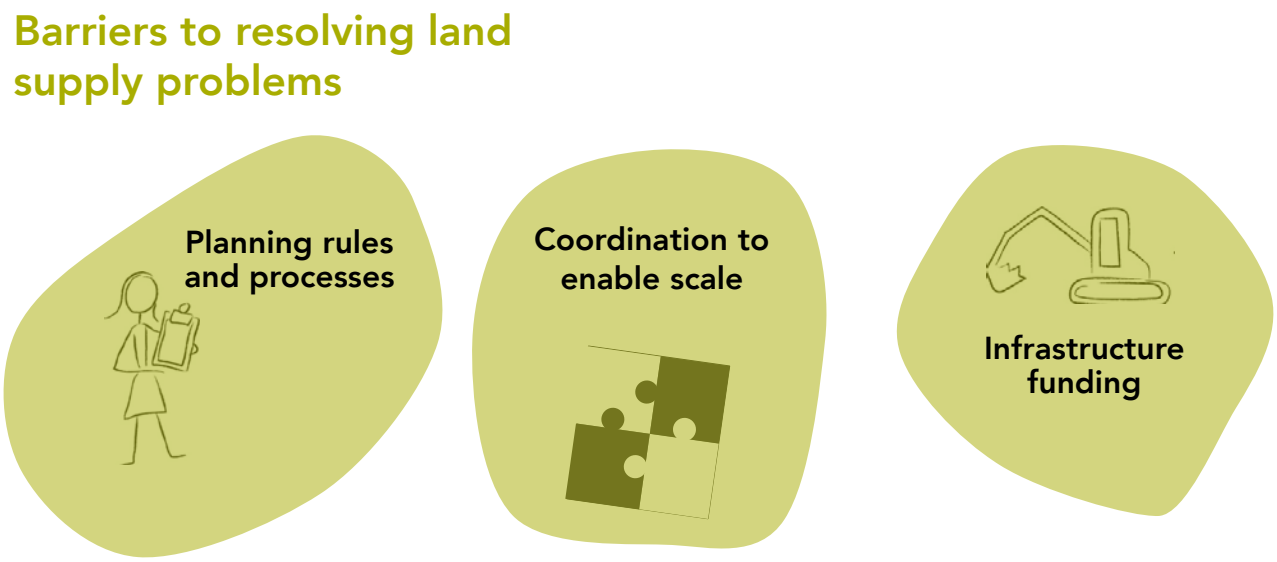
The Housing Accords and Special Housing Areas Act 2013 (HASHA Act) addresses some of the wider concerns with the release of land for housing that are discussed in this report. In particular, it streamlines planning processes to allow for the faster processing of consents. It also (in some circumstances) provides more permissive planning rules than would otherwise be available.

However, some problems identified in this report are not relieved by the HASHA Act, in particular the three issues below.

- The assembly of sites, to allow developments to occur at scale. Of the Special Housing Areas (SHAs) announced in Auckland, only one has the capacity to deliver in excess of 3 000 dwellings (over 10 years), which is the size of the Hobsonville project. Some provide for only 9 or 10 dwellings. In some cases, both inside and out Auckland, designated SHAs may only be the size of one urban lot.
- The inability to attract developers able to deliver on a scale required to ameliorate the housing shortage in Auckland, and capture the potential economies of scale in home construction.
- An unwillingness to fund infrastructure, such that its provision is sufficiently responsive to demand. This is a source of frustration for developers, even those within SHAs (Ireland & Smith, 2014).

Considering options to make larger, more rapid progress on these three issues is the subject of this chapter (Figure 10.1).

Figure 10.1 Barriers to resolving land supply problems



10.2 Amalgamation of land

In its 2012 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" (p. 102). Significant scale economies can be achieved in land development and building, but this often requires the aggregation of smaller parcels of land. 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).

Benefits of large-scale developments

The residential construction sector is essentially a fragmented "cottage industry" dominated by very small independent builders constructing bespoke homes. This makes efficiencies in the use of land, or construction itself, difficult to realise. The Commission's 2012 inquiry into *Housing affordability* found that the lack of scale in the New Zealand residential construction industry presents a significant barrier to productivity growth.

- Small builders are less able to generate economies of scale.
- Scale home builders can reduce construction costs by delivering standardised housing, but scale building firms occupy a comparatively small share of New Zealand's building market.
- A lack of available land can present a significant barrier to productivity by inhibiting the development of group home builders and scale developments. (Box 10.1)

Box 10.1 The Commission's 2012 views on development at scale

> First, development at scale (and consequently low cost) is necessary to substantively influence the market as a whole. Second, it would enable more builders and suppliers to gear up to build high- or medium-density housing rather than the low-density housing that currently prevails. Third, the availability of larger parcels of land for development enables builders to reap economies of scale. (p. 110)
>
> Larger building firms are also able to generate scale efficiencies from building large numbers of houses on the same site. This creates efficiencies from repeating building processes, and also allows the different parts of the supply chain to work sequentially on different projects, resulting in fewer time delays. In order to achieve this, builders require "sufficient developed land to be available to leverage their model across multiple build sites" (Fletcher Building, sub. 21, p. 3).

> Inquiry participants noted that it is rare for land areas of this size to be available (Saltburn Limited, sub. 7; Fletcher Building, sub. 21). (p. 184)
>
> The Commission considers that the single biggest factor which has constrained the emergence of larger and more efficient building firms is a shortage of large land parcels which enable residential development at scale. Inquiry participants suggested that the dominance of small firms building bespoke houses is a natural by-product of the typically small and expensive land areas which are available in most of New Zealand's faster-growing regions …
>
> In essence, the structure of the industry is a reflection of the environment in which it operates. Until conditions emerge which favour larger developments with a reasonable level of certainty around future demand, it is unlikely that we will see a significant shift in the nature of the industry. (p. 185)

Source: NZPC, 2012.

The Hobsonville Land Company was able to attract successful tenders from AV Jennings to be its building partner. 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.

F10.1 Large-scale developments offer 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.

Overseas investment framework

In the course of the inquiry, the Commission spoke to two developers (including one of New Zealand's largest firms) that are New Zealand-registered companies with majority-foreign shareholding. 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.

These companies told the Commission that they have no problem gaining the consent of the OIO, on the basis that the projects are of benefit to 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.

R10.1 The Treasury should investigate the possibility of providing an exemption from the foreign investment screening regime for developers purchasing land, providing the land is developed into housing and resold within an acceptable timeframe.

Is amalgamating land in New Zealand a problem?

In a 2006 paper for the Ministry for the Environment, 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.

Chapter 9 discussed the issue of land banking in New Zealand cities. Figure 9.8 shows the wide distribution of landholdings that are considered suitable for subdivision. The idea that developable greenfield land in Auckland is held in a small number of concentrated holdings is misplaced. In fact, developable land is held by large number of owners, due in part to the proliferation of lifestyle blocks (see Chapter 3).

Submitter views on amalgamation problems

Many submitters considered land amalgamation to be a problem, in both greenfield and brownfield sites:

> Land fragmentation and owners' individual agendas have the potential to make infrastructure provision for large scale greenfields development messy, challenging and costly. Land aggregation would help. (Ralph Broad, sub. 3, p. 3)

> 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 for 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)

The Greater Christchurch Urban Development Strategy Partnership (comprising Christchurch City Council, Environment Canterbury, Selwyn and Waimakariri District Councils, the New Zealand Transport Agency and Te Rūnanga o Ngāi Tahu) submitted that a public agency was needed to amalgamate land:

> Holding land in the hope of advantages derived through site amalgamation can be high risk and financially unviable, especially with the current sanctity provided to private property rights. Better enabling the aggregation of land and a wider ability to compulsory purchase land therefore need to go together to short circuit current practices.
>
> Development in many existing urban areas that are appropriate for intensification is inhibited due to the existing land ownership pattern, often with titles in long sections with a narrow street frontage.
>
> Aggregating adjacent land is not easy for a developer and the resulting redevelopment on such a single lot-by-lot basis often struggles to achieve good urban design outcomes.
>
> Equally, the preferred development of larger sites can be frustrated by owners of surrounding land (perhaps necessary for integrating with existing networks or communities) 'holding out' in the knowledge that they are effectively untouchable.
>
> The role of a land acquisition and aggregation agency could be to:
>
> - 'step in' as a last resort to compulsory acquire strategic sites where other avenues had been exhausted

- proactively purchase and hold land in strategic areas where the market is unwilling
- handle land amalgamation administrative processes (combining titles, etc)
- undertake initial masterplan consenting or physical works to make the site 'development ready'
- promote and showcase successful redevelopment to change attitudes of landowners or developers. (Greater Christchurch Urban Development Strategy Partnership, sub. 18, pp. 8–9)

The Institute of Surveyors also submitted that a public agency was needed to amalgamate land:

> Aggregation of land is a very important planning mechanism. The results of large land parcels being developed into a range of housing forms and styles with integrated planning and design over the last decade has made substantial improvements to the quality of urban environments particularly in Auckland and Christchurch and is a recommended practice.
>
> It is common to have a very fractured landownership pattern in green fields development areas. This makes it virtually impossible to implement catchment based planning for infrastructure requirements as individual owners do not want to contribute if they perceive their returns are lower than another property owner. There are issues with connections through properties where owners are extorting ridiculous connection fees adding unnecessarily to development costs…
>
> We suggest that aggregation of land for housing by a public agency should be seriously investigated. From a design point of view aggregation of many smaller parcels into large development blocks offers very substantial benefits to communities through the improvement in design options.
>
> Aggregation can also accelerate development in city in areas where growth is non existent or areas need refreshment and improving to promote growth across a city area. If managed by a combination of both private and public sector contributions such as Waitakere properties in the 1990s then results can be very successful. Such an agency needs to be a separate entity from Council and able to operate independently from Council's normal structure.
>
> It would be advantageous if such agencies could have the use of special development area processes that could accelerate the planning and consenting processes such as "precinct planning area" or "local area plan" or some such description that could be applied to a specifically identified development are supported by legislation (RMA or Local Government Act) and the District Plan. (New Zealand Institute of Surveyors, sub. 74, pp. 15–16)

However, one submission from landowners at Papamoa East, Tauranga, did not agree that an agency was required to undertake amalgamation:

> We believe that enabling public agencies to aggregate land would end up being a very contentious and litigious process that would struggle to achieve any effective land aggregation outcome. We would prefer to see structural changes to encourage and facilitate the aggregation of land [privately]. (Te Tumu Landowners Group, sub. 40, p. 20)

Private land assembly mechanisms are discussed further below. Another submitter, while agreeing that multiple and fragmented land ownership inhibited development, opposed measures that might facilitate the amalgamation of land. Instead Hughes Development Ltd submitted that councils should prioritise zoning land for residential development where land ownership is concentrated, rather than held in multiple ownership (sub. 43).

F10.2 There is a coordination failure preventing many large residential developments. Amalgamating land is a challenge in both greenfield and brownfield sites, particularly in Auckland.

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. 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 modern history from the Magna Carta to the Universal Declaration of Human Rights.

But property rights are not absolute. In the case of *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 a law; and they can be restricted where it 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 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 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 there is just compensation for the property taken.

Merill (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 10.2).

Table 10.2 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 it 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).[47]

The authors note where American 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.

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 the 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 moral hazard that might cause landowners to overinvest in land that may subsequently be taken for public use. Blume, Rubinfeld and

[47] 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).

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);
- because private insurance against compulsory acquisition is not available, compensation is justified (Blume & Rubinfeld, 1984);
- 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 (discussed in Chapter 2), 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 10.2). It is particularly impractical for public organisations to maintain secrecy about projects.

Box 10.2 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 subject 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, 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 there is a successful bid, 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 it 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.

- 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 (Plassmann & Tideman, 2011).

- Miceli, Segerson and Sirmans (2008) have proposed a mechanism that ensures only efficient development occurs, and that each own receives full compensation. But it requires that owners have identical subjective valuations of their property, and so for practical purposes 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 owners (collectively) in a way that does not distort their nominated value. However, 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, they need to believe that the government has set the tax by accurately assessing the likelihood of developers assembling.

Few mechanisms ensure only efficient developments proceed (where the value of the assembled land is greater than the sum of 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 to a use 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 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 9 provided 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 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 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 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 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 conclude:

> 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 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). However, the threat of acquisition is still coercive, and there needs to be a willingness to exercise the compulsory acquisition powers.

F10.3 Compulsory acquisition powers can facilitate a negotiated sale, and often do not need to be exercised to be effective.

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 10.3).

Box 10.3 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 total urban area in Japan had been developed using this approach.

Source: McKinsey Global Institute, 2014.

F10.4 There are a range of compulsory acquisition approaches used by authorities around the world to assemble greenfield and brownfield land for development.

Submitter views on compulsory acquisition

Some submitters to the inquiry were positive about the role that compulsory acquisition could play. Wellington City Council (sub. 21) submitted that territorial authorities should be given power to acquire greenfield land for housing. Another submitter argued that compulsory acquisition overseas had provided a strong incentive for landowners to develop land, or to sell to those who would:

> [I]n Europe, threat of compulsory acquisition for aggregation of land, mostly for *public* uses, tends to keep land owners more pragmatic about holding out too aggressively, either for "no development" or unearned oligopoly "site value capture".
>
> The use of "eminent domain" in the USA, *on behalf of private sector developers*, is very unpopular with the public and almost certainly will be here … landowners are quite rightly under sufficient threat as they are in the path of urban growth, as to be kept realistic even if compulsory acquisition is not going to be exercised on behalf of private developers. In fact land owners could be provoked to sell to private sector developers sooner, rather than have their land compulsorily acquired later. (Philip Hayward, sub. 41, p. 63)

F10.5 The existence of an agency with compulsory acquisition powers can encourage landowners to develop their land or to sell it to those who will.

Te Rūnanga o Ngāi Tahu is opposed to compulsory acquisition, and emphasises the importance of just compensation:

> Te Rūnanga is also of the view that we would oppose any loss of property rights or regulatory takings in the tribal takiwā. Te Rūnanga also urges local and central government to fully consider the implications of unnecessarily restricting the use of property and as such, should consider any compensation provisions for doing so. (Te Rūnanga o Ngāi Tahu, sub. 63, p. 7)

Land has a special significance to Māori. 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). Past legislation on compulsory acquisition has contained explicitly discriminatory provisions for taking and compensating Māori land (Marr, 1997).

In its previous report into *Housing affordability* (2012), the Commission noted that multiple ownership had often made it hard to develop dwellings on Māori land. This, and the location of some Māori land on the outskirts of fast-growing cities, could make Māori land particularly susceptible to acquisition. Also, ethical problems may arise with the compulsory acquisition of general land previously returned to Māori as part of a settlement of historical Treaty breaches (including confiscations).

However, the need to assemble land for housing development can also provide opportunities for partnership. Some Iwi are increasingly important developers in their region. Māori have much to gain from resolving housing shortages.

F10.6 Any proposal for compulsory acquisition of Māori land would face sensitive Treaty issues. Any regime to compulsorily acquire land for housing developments needs to recognise both the associated risks and positive partnership opportunities.

Can taking land for housing be in the public interest?

Section 2.7 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.

These are significant public harms. Compulsory acquisition of land to enable land development for housing would help alleviate these harms.

F10.7 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.

10.3 An urban development authority

Government land organisations – 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 government land organisations (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 their usefulness 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 urban development authorities in land development, including:

- the potential for urban development authorities (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").

There have been several suggestions for UDAs in New Zealand.

- In 2006 a report commissioned by the Ministry for the Environment proposed creating a 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).

F10.8 Urban development authorities can play an important role in de-risking development and bringing land to market.

New Zealand practice

No territorial authority within the scope of this inquiry currently has a UDA in place. However, two local authorities are each actively considering establishing one.

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 council controlled organisation (CCO) to redevelop areas in the centre of Wellington and various suburban growth areas.

Wellington City Council noted in its submission that it is

> 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)

Auckland

Auckland Council has two CCOs involved in developing property:

- Auckland Council Property Ltd, which undertakes all property acquisitions and disposals for Auckland Council and Auckland Transport, managing around $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, which manages 45 hectares of waterfront property that includes Wynyard Wharf, much of Wynyard Quarter, Westhaven Marina and part of Queens Wharf.

Auckland Council announced in November 2014 that it had agreed to combine these two CCOs to form an urban development agency, known as Development Auckland. The new organisation would

> have a key role in helping deliver the council priority of quality urban living and will have the mandate to deal with the challenge of Auckland's rapid growth through regeneration and investment. The agency will have the capability to deliver public and private development and infrastructure, including housing, across the region. (Auckland Council, 2014c)

The Commission understands that Development Auckland would use market transactions, rather than compulsory acquisition powers, to carry out urban development projects. The proposal to establish Development Auckland will be consulted on as part of Auckland Council's 2015 Long-Term Plan. If approved, the organisation could be in place by September 2015.

F10.9 No territorial authority within the scope of this inquiry currently has an urban development agency in place. However, the Auckland and Wellington City Councils are actively considering establishing such agencies.

Models for urban development agencies

A range of models for UDAs exist within New Zealand and internationally.

Tāmaki

The Tāmaki Redevelopment Company was formed in 2012 and is jointly owned by the Government and Auckland Council. Its aim is to regenerate parts of Glen Innes, Point England and Panmure:

> The area has a high proportion of state housing (56 percent) with HNZC owning approximately 2,870 properties in the area but relatively low density housing. The community has high levels of deprivation, low levels of educational achievement, low labour force participation, low incomes, high unemployment, and high dependence on social security benefits. (New Zealand Treasury, 2013, p. 11)

However the company has expressed frustrations at the slow pace of development. Only 32 dwellings are under construction, of a targeted 7 500 new dwellings in the area (Grieveson, 2015).

Some reasons for the lack of progress to date in Tāmaki may include:

- the lack of statutory powers hampering the company's progress, in particular rights to use Housing New Zealand Corporation (HNZC) properties;
- an insufficient balance sheet for the scale of the project – Government and Council invested $5 million and $3.5 million in the company's establishment respectively;
- a constitution that gives both parents (Council and Government) veto powers over projects; and
- a lack of private sector participation, including private sector capital.

In April 2015 the Government announced a transfer of 2 800 state houses to the Tāmaki Redevelopment Company and access to a $200 million loan facility, to address some of these issues.

Hobsonville

HNZC purchased 167 hectares of land for housing purposes at the former Hobsonville Airbase in the northeast of Auckland and established the Hobsonville Land Company, a wholly owned subsidiary of HNZC. Development of this land is being facilitated through a collaborative partnership with the private sector. Through a tender process, Australian-listed company AV Jennings was appointed in 2007 as the preferred partner to develop the first stage of the Hobsonville development. Subsequently, AV Jennings has contracted several New Zealand group-home builders to build the houses. The Hobsonville development is a 10–15 year project that will deliver around 3 000 dwellings.

Christchurch

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 prices of less than $400 000; 50 will involve shared-equity ownership with the NZ Housing Federation.

Australia

As discussed above, a number of the Australian state land corporations established in the 1970s evolved into development agencies, partnering with private sector developers to masterplan projects.

Both LandCorp in Western Australia and Economic Development Queensland have planning powers. In the latter case, land designated for redevelopment is carved out from the local council for the duration of the project. Economic Development Queensland sets infrastructure standards and undertakes all planning processes. When construction ends, authority is returned to the council, and the relevant infrastructure provider must accept ownership of the infrastructure that has been built.

UrbanGrowth New South Wales

UrbanGrowth NSW is a state-owned corporation, established in 2013 from the merger of two previous development agencies (LandCom and the Sydney Metropolitan Development Authority). While its predecessor organisations were focused on development in greenfield areas, UrbanGrowth NSW's priorities are:

- major urban transformation projects: "a pipeline of complex large-scale urban revitalisation programs that provide infrastructure, housing, jobs, and economic and social benefits that support the government's broader objectives for the state" (UrbanGrowth NSW, n.d.); and
- wholesale projects: redeveloping (eg, owning, rezoning, and masterplanning) surplus government land to maximise both its resale value to the private sector and residential potential.

Projects are selected based on the location's importance to the state or region; the potential to deliver significant housing mix, job and community amenity, the nexus between "development and public infrastructure, particularly transport", the involvement of government-owned land and the need for leadership across multiple government agencies. UrbanGrowth NSW has an overall goal of delivering 10 000 homes over four years (from March 2011).

UrbanGrowth NSW does not have planning or compulsory acquisition powers. It uses its large balance sheet (total equity in 2013/14 of A$425.5m) to finance the amalgamation and preparation of land.

UK

London Docklands Development Corporation

The London Docklands Development Corporation (LDDC) was established in 1981 to renew 2 400 hectares on the banks of the Thames River which had fallen into disuse. The board of the LDDC was appointed by the Secretary of State for the Environment, and the Corporation had a range of powers, including the ability to compulsorily acquire land and act as the sole development approval authority. LDDC was vested with large amounts of public land and received annual operating grants.

The LDDC was wound up in 1998, and the Docklands was progressively handed back to three local governments between 1994 and 1998. The redevelopment quadrupled the number of residents and jobs in the area between 1981 and 1998, creating 24 000 new dwellings (40% of which were targeted at people on average wages). The redevelopment also led to a range of other attractions and amenities, including restaurants, concert halls and galleries.

Best practice in Urban Development Authorities

In its 2012 report into *Housing affordability*, the Commission examined a range of collaborative approaches, including development agencies overseas. It found that there was "scope for councils, developers, land owners and builders to collaborate in bringing affordable housing to market, by ensuring the alignment of land release in suitable locations, the provision of infrastructure, and market demand" (p. 102).

Box 10.4 The Commission's 2012 comments on collaborative approaches to developing housing

What might a collaborative approach look like?

Different approaches can be taken to collaboration. It may be:

- driven by a strong planning mandate with the power to require diverse agencies to comply with regulations requiring the release and development of land in a particular order and manner;
- facilitated by collaborative planning and coordinated investment among agencies and investors;
- planned jointly and then subject to joint agreements for the delivery and coordination of regulatory changes (plans) and investment in infrastructure and services;
- subject to planning and implementation through a special purpose agency on a project basis;
- undertaken by a special purpose regional or city-wide development agency or corporation with the capacity to declare areas for urban re/development, undertake the planning, and enter into contractual and other arrangements for delivery, including direct investment.

In determining the preferred approach it is useful to consider other models that can provide insights about what has worked well and what hasn't in different circumstances. The Commission has looked at the collaborative approach adopted by Auckland for regional land use before the creation of a single city; the integrated planning approach adopted by the New Zealand Transport Agency; the Hobsonville Development; Places Victoria, an urban renewal authority in Victoria Australia; and the Queensland Urban Land Development Agency …

This is a limited survey, some preliminary findings are:

- Centralised planning and regulation are likely to fail through inadequate knowledge of needs and capacities, and the difficulty of anticipating issues and enforcing behaviours.
- Voluntary collaboration appears to fail through lack of commitment to or capacity for local implementation of high-level plans by partners.
- A weak statutory base or lack of explicit precedence (of development plans relative to other plans) in any empowering statutes will also frustrate implementation.

- The creation of a statutory or similar agency to bring urban land to the market may range between a multi-purpose (regional) development authority through to a project-specific entity. Circumstances that call for focused short- to medium-term initiatives should favour the latter.
- A specialised land development agency may be empowered (or required) to behave in a commercial way when undertaking land transactions and development, subject to specific policy and statutory requirements. It is important that governance provisions ensure that other public objectives do not infringe on its activities.
- Too broad a role or too many instruments may undermine the performance of land development authorities because of the demands placed on resources, skills and management, the loss of clarity over mission, and the confusion that it might give rise to in the market.
- There might usefully be an organisational and governance differentiation between planning and the implementation authority. Questions of balance between environmental and development objectives, existing and future residents' rights, commercial and non-commercial objectives may require adjudication by a third party. Given the primary objective of bringing substantial areas of housing to the market, such adjudication might be given effect by means of the terms of declaration of land's development status and via ministerial call-in provisions.
- It is important to determine how infrastructure providers might be committed to implementation, especially with mixed private and public participation in large-scale development.

Importantly, the approach adopted will need to suit the urgency of the situation, and will reflect the likelihood of successful delivery without it.

Source: NZPC, 2012, pp. 122–23.

The Urban Taskforce (2009) recommended a set of partnering principles that should guide an urban development agency in New Zealand (Box 10.5).

Box 10.5 Urban Taskforce's Partnering Principles for an Urban Development Agency

- At the outset, there is a clear and agreed vision for a development. This vision should be defined to the point where there is a clear development concept, and a commercial, and bankable, proposition for the private sector.
- The respective parties bring the skills (and assets) that only they can bring to the table, and should manage those risks that they are most capable of managing.
- That there is an enforceable commitment upon each party to deliver its part of the development, and commercial penalties if there is default on the part of any party.
- Land assembly, regulatory/consenting processes and infrastructure/amenity development should be (substantially) completed before private sector capital is called upon.
- There should be contestability for the delivery of services as far as practical.
- Commercial arrangements should be used to bring the parties together which, once established, should be operated on an arms-length basis outside direct central or local Government political control.
- A separate partnership should be created for each development – with the partnership model and terms/conditions being tailored to the specific features of each development.
- Central Government would need to have a capability (possibly based in an existing department) to manage growth and co-ordination issues over a range of partnerships.

Source: Urban Taskforce, 2009, p. 30.

Should New Zealand have an Urban Development Authority?

A number of submitters to the inquiry argued that similar institutions were needed in New Zealand, in particular to deal with issues of fragmented landholdings, dealing with sites "where there is market or regulatory failure" (Property Council New Zealand, sub. 33, pp. 5–6), or intervening to promote a greater supply of affordable housing (Greater Christchurch Urban Development Strategy Partnership, sub. 18, p. 5). After discussing land assembly problems, Selwyn District Council submitted:

> It is considered that in the right circumstances a development agency with powers of land amalgamation could be considered appropriate. (sub. 45, p. 11)

A UDA would be a suitable vehicle for the use of compulsory acquisition to amalgamate parcels of land for development and redevelopment, and for capturing the uplift in value that comes from upzoning, coordinating infrastructure provision, and catalysing development on a scale required to address the challenges identified in this report.

A range of design features would need to be considered (Table 10.3).

Table 10.3 Design feature for an Urban Development Authority

Design features	Considerations
Should the UDA focus on Auckland or have a wider mandate to focus on growing cities?	Chapter 2 notes that although recent debate on the performance of the housing market has focused primarily on Auckland and Christchurch, affordability problems are widespread. Opportunities exist in Wellington for a local urban development authority to redevelop identified growth centres, or greenfield development in Wellington's north.
Should New Zealand have one national UDA or a number of regional agencies?	One national UDA would allow the organisation to source private sector talent and build expertise in undertaking projects at scale. It would also allow it to diversify its holdings and projects to manage risks. The existence of a national UDA would not preclude establishing separate partnerships for separate development projects. Central government appointees to the board of a UDA may more likely be merit-based, rather than political appointees. They may also be better placed to resist some local political pressures that are against development. One option would be to have a national UDA that partners solely with the private sector in some projects, and partners with the private sector and local government in other projects. In the latter case, while the project would seek to deliver outcomes sought by local government, it would be important to ensure that the projects continued to operate on a commercial basis separate from local political control.
Should a UDA operate in greenfield, brownfield, or both?	This report argues that there is a need to remove restrictions on the growth of cities, both up and out. Giving a UDA a mandate to operate in both greenfield and brownfield will enable it to pursue the most promising developments based on market opportunities and its own landholdings. On the other hand, too broad a focus may undermine its performance because it is likely to require additional skills, and a lack of role clarity. The United Kingdom has separate mechanisms for undertaking each type of activity, with different powers.
Should a UDA have powers of compulsory acquisition?	This chapter has argued that power of compulsory acquisition is an important part of enabling developments of sufficient scale. It would also better enable a UDA to capture value uplift where it can compulsorily purchase land based on the value of land before the project is announced.
Should a UDA have planning powers?	Attracting sufficient private investment is likely to involve removing planning risks. In Queensland this involves removing the development area from the jurisdiction of the local council for the duration of the development. It is also subject to streamlined

Design features	Considerations
	planning processes and more enabling land use rules than are available under existing local government plans. This would also allow a UDA to meet market needs that are currently stymied by local land use regulations, including in some cases the construction of well-designed smaller, more affordable, and denser, dwellings. Overcoming the unduly restrictive land use regulations in both greenfield and brownfield sites, as discussed in Chapter 5 (which result in part from the democratic failures discussed in Chapter 9), will be an important enabler of success. However, separation of planning powers from development activities is also likely to be required to ensure that environmental considerations are not unduly compromised so in order to facilitate profitable developments.
How should development opportunities be chosen?	A UDA should have the ability to operate as an open market land developer, as well as operating in areas designated by a Minister. The process for designating SHAs shows that requiring local government agreement to development sites is unlikely to result in the designation of a number of development or redevelopment areas on a sufficient scale.
Should a UDA have the power to construct its own infrastructure?	Integration of infrastructure provision is likely to be a key mechanism to achieve efficiencies. It would be untenable for the development activities of a UDA to be subject to frustration by reticent local infrastructure providers. A model in which council infrastructure providers are obliged to accept assets that are constructed to minimum standards is attractive, although care is needed to consider any demands on the wider networks.
Should a UDA be required to produce affordable or social housing?	A UDA should operate on a commercial basis, but could also be tasked with providing a range of dwelling typologies, including those not being delivered adequately by the current new-house market. For some, but not necessarily all projects, this should include producing affordable dwellings. Different planning rules might allow the production of, for example, smaller dwellings on a commercial basis. However, this raises questions such as should a UDA be asked to produce affordable dwellings on a non-commercial basis? And, if so, on what terms? It is notable that the initial intention to produce a large number of affordable homes as part of the Hobsonville development has not been realised.
How should a UDA be capitalised?	A UDA would require significant start-up capital, which over time should be returned through the sale of developed land. A large cash injection will be needed, but a UDA could also be capitalised through transfers of surplus Crown-owned land. Such transfers could form the cornerstone of development projects.
Should a UDA be responsible for meeting dwelling targets?	Chapter 4 discusses the role that dwelling targets can play in incentivising councils to facilitate development, and Chapter 8 suggests that infrastructure providers should be tasked with supporting those objectives through their SOIs. Alternatively, a UDA could be tasked with delivering a targeted number of dwellings in a city. Giving a target to both a UDA and a council is likely to weaken their incentive effect, because accountability for meeting the target is dispersed.

The need for action to facilitate the use of land for housing justifies the establishment of a UDA to fast-track the development of large-scale projects that could not be carried out by the private sector alone. A UDA would:

- assemble public landholdings with private landholdings to allow development on the required scale;
- coordinate and integrate the delivery of infrastructure;
- spatially masterplan large-scale residential development projects;

- partner with private sector developers to deliver those projects; and
- operate under streamlined planning and consent processes.

How a UDA would exercise powers of compulsory acquisition

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)).[48] 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. Taking of land wholly for private purposes is not authorised (see *Bartrum v Manurewa*, 1962).
- 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 RMA provides that a network utility operator may apply to the Minister of Lands to have land required for a project or work acquired or taken under the Public Works Act 1981 as if the project or work were a government work within the meaning of that Act.
- 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

  > 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 are not clear (Sustainable Urban Development Unit, 2008). The powers under the Public Works Act probably could not be exercised by a Crown entity or company operating at arm's length from Ministers. The powers under the Local Government Act appear to be seldom, if ever used, so their application is uncertain. The powers in the Housing Act 1955 look like they may enable the taking of land for the sort of developments envisaged, including the sale of completed dwellings, but this would need to be tested.

[48] 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*).

If uncertainty exists, legislation establishing a UDAs should similarly provide for that UDA to be able to acquire land as set out in the process outlined in the Public Works Act 1981, as if it were government work. Other non-core Crown agencies have been similarly empowered:

- The Heritage New Zealand Pouhere Taonga Act 2014 empowers Heritage New Zealand to acquire, restore, conserve, and manage historic places and areas (s 14(1)); and
- The River Boards Act 1908 empowered River Boards to take land under the Public Works Act 1981 for river works (s 74).

To prevent any risk of a UDA exercising compulsory acquisition powers in respect of its general trading in land, it may be desirable that such acquisition only be permitted within areas designated by Order in Council for development or redevelopment. Another proviso for such acquisition should be that the compensation is based on the pre-designation value of the land, so as to allow the UDA to capture the uplift in value that results from the designation of development/redevelopment.

The "offer back" provisions of the Public Works Act would likely need to be limited to situations where the land was 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.

Risks

Using a UDA has risks.

- If a UDA is focused on enabling developments on a scale that could not otherwise occur through assembly powers, then this aspect of its work would not crowd out private investment. One possible risk is that as the UDA moves to develop land, its activities could start to crowd out private sector efforts. Requirements to partner with private sector developers are essential. It may be worth ensuring that processes to select developers as partners are operated at arm's length from the exercise of assembly powers.
- Another risk is that a UDA might not operate in a competitively neutral way. This risk may be heightened where the UDA has acquisition or planning powers. This risk can be mitigated by requiring Ministers to designate areas where such powers can be exercised. Ideally, these areas would be based around areas where public landholdings could form the core of the project. Economic Development Queensland has an internal structural separation between its planning and development functions so as to promote competitive neutrality.
- Financial risks are associated with any commercial venture. Although it has since recovered under new management, Places Victoria recorded large losses in 2012-13. The company had not been operating in a commercial manner, was overstaffed, and had acquired non-commercial sites. Mitigating such as risk requires that a UDA operate in a commercial manner, with strong governance and leadership.
- Given the historically high price of land in Auckland, a UDA would risk suffering losses should that high price decline. However, a fall in land prices also provides an opportunity for a UDA to acquire sites on favourable terms. Through trading in land, a UDA could operate an important role in smoothing the peaks and troughs of such property cycles.
- Another risk is that UDA could be established or operated in a way that undermined its ability to achieve its objectives. Examples include it is undercapitalised, lacks necessary powers and functions, or government is unwilling to designate development sites or redevelopment sites that the UDA can operate in.

R10.2 There is a place for a UDA to lead and coordinate residential development at scale in both greenfield and brownfield settings, working in partnership with private sector developers. Legislation would be required to establish and give powers (such as compulsory acquisition) to one or more UDCs in New Zealand.

The Commission is interested in submitters' views on design features of a UDA, including any risks.

Q10.1 What are the important design features of an Urban Development Authority? What are the risks with this approach, and how can they be managed?

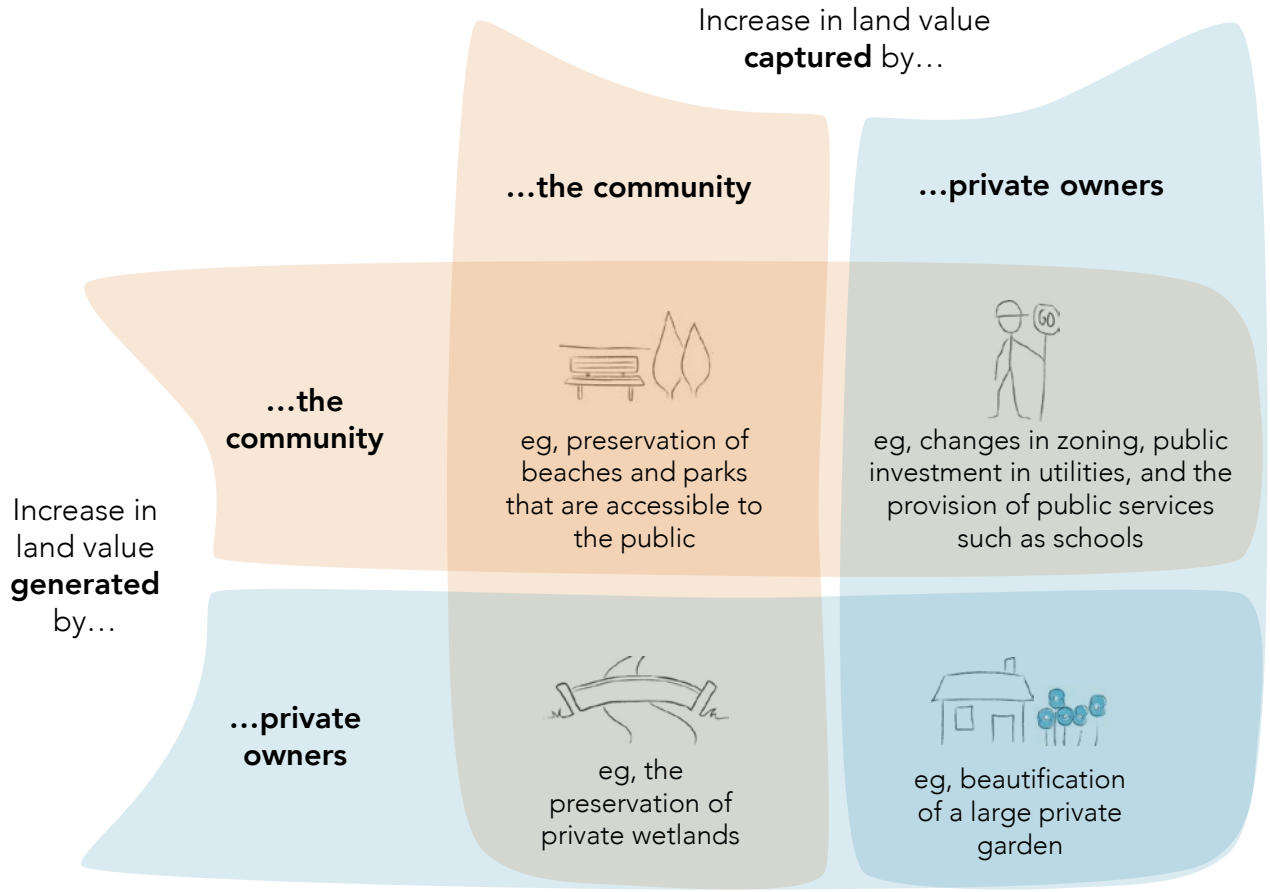
10.4 Funding growth-enabling infrastructure through value capture

Chapter 7 discusses the range of options open to local government to fund infrastructure growth. However, there is also a demonstrated unwillingness to use these options to the degree required. Value capture mechanisms are often used around the world to capture the increase in value created by public action such as rezoning. This section discusses how this approach might work in New Zealand.

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 10.2).

Figure 10.2 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 10.2). 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.

When broadly applied, value capture mechanisms 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).

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 the sort of infrastructure funding gaps identified in Chapter 6.

One problem with value capture mechanisms is the difficulty in managing situations where public action such as "downzoning" reduces the development capability of land, and therefore its value – "worsenment" (Walters, 2013). However:

- with a betterment levy a local authority is better placed to pay compensation;
- in areas of population growth, generally many more public actions will increase land value than decrease it; and
- if planning and infrastructure decisions are efficient and rational, then they should in each case generate more increase in value than decrease in value.

Liability to compensate would also encourage planners and local politicians to consider the implications of downzoning carefully:

> If local authorities were required to provide compensation for regulatory takings BusinessNZ would expect them to take more care when regulating private interests in the public interest. (BusinessNZ, sub. 16, p. 6)

F10.10 It is justifiable for the public to capture some of the increase in private land value that is created by public actions.

Models of value capture

Walters argues that four conditions are necessary for capturing value:

- land values must increase as the result of some public action or investment, such as rezoning or the provision of infrastructure;
- a valuation process must be implemented that identifies the change in land value and incorporates that change into the taxable value of the land;
- either a special tax must be levied or the broader tax rate applied to land must be maintained at a sufficiently high level to capture the desired share of the increased value; and
- the collection efforts must be sufficient to realise the increased revenue (Walters, 2013, p. 7).

However, a tax is not the only mechanism that can capture publicly created increases in land value. This section discusses four types of value capture:

1. A land value increment tax
2. Betterment levies
3. Market participation
4. Negotiated contributions.

This is not an exhaustive list of value capture mechanisms. For example, inclusionary zoning (discussed in Chapter 5) is also a way of capturing the value from rezoning).

Land value increment tax

A general tax on land value would indirectly capture increases of value that result from public action. Brown & Smolka (1997) make four conclusions about land taxes:

1. An ethical argument exists for capturing publicly created value in land.
2. Substituting other taxes with a land tax is economically efficient.
3. Land taxes tend to lower land prices,[49] and reduce incentives for speculation,[50] both of which are desirable and which benefit in particular low-income households.
4. The revenue from a land tax could cover a major part of public infrastructure investment.

A pure land value tax is attractive for a range of reasons (see the discussion of land value rating in Chapter 9). However, because it also taxes the pre-intervention land value, it is a blunt instrument for capturing value uplift.

An alternative is a tax on the incremental increase in land value after a fixed point in time, as proposed by Mill:

> From the present date, or any subsequent time at which the legislature may think fit to assert the principle, I see no objection to declaring that the future increment of rent should be liable to special taxation; in doing which all injustice to the landlords would be obviated, if the present market-price of their land were secured to them; since that includes the present value of all future expectations. With reference to such a tax, perhaps a safer criterion than either a rise of rents or a rise of the price of corn, would be a general rise in the price of land. It would be easy to keep the tax within the amount which would reduce the market value of land below the original valuation: and up to that point, whatever the amount of the tax might be, no injustice would be done to the proprietors. (Mill, 1848, Book 5, Chapter 2, §5)

Land value increment taxes are also known as betterment levies, and valorisation taxes. They typically allow a local authority to claim back as a charge from a landowner some proportion of the increase in value resulting from the public action. Theoretically, up to 100% of the unearned increase should be able to be collected (in 1909 the UK Government introduced a short-lived betterment tax of 100%), but it has more commonly been set at a rate between 30% and 75%.

A land value increment tax is likely to be even more effective than a land tax in encouraging a landowner to develop land to its full potential, or sell it to someone who will, because it is a large tax assessed over a relatively short timeframe (Slack, 2006, p. 216).

Betterment levies

Betterment levies differ from land value increment taxes in that rather than being an ongoing mechanism, they are levied following specific individual actions, such as rezoning or the construction of public transport.

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[49] A land tax would cause an immediate fall in the value of land equal to the net present value of the future land tax liabilities. Coleman & Grimes (2009) estimate a 1% land tax would reduce land value by 16.7%.

[50] Speculators acquire land and hold it while they seek to discover its most valuable uses. A land tax reduces the return from being the one who possesses land when its improved prospects become known. Less effort will be spent in seeking to discover what land will rise in value and in seeking to acquire land in advance of when the rise in value becomes generally known. As a result, less land will be withheld from development (Tideman,1982; 2004).

New Zealand's Town Planning Act 1926 provided for each local authority to set up a betterment fund from which to meet compensation claims and other expenses. It was not, however, a success:

> The fund was to be provided by the payment to the local authorities concerned of one half of the betterment increase in the value of any rateable property, such value being attributable to the approval or the carrying out of any work under, or in accordance with the town planning scheme.
>
> History has shown the legislation was in vain and that no betterment was ever collected, or as far as I can ascertain, paid out. (Hearn, 1987, p. 3)

Betterment levies have a long history in Latin America, but are also used in other countries (Box 10.6).

Box 10.6 Examples of Betterment Levies

- The **United Kingdom** has seen several attempts to implement a betterment levy. In 1909 a betterment tax was introduced, although it was immediately reduced from 100% to 50% (Booth, 2012, p. 77). In 1947 the Town and Country Planning Act "essentially nationalised all development value", with developers able to buy back development rights. But this was abolished after four years. In 1965 a 40% betterment levy was introduced, then removed by a new government three years later. In 1975 a 60% tax on incremental value resulting from development approval was introduced, but was repealed in 1985. These efforts appear to have been beset by administrative challenges, and encouraged landowners to hold land until the tax was abolished and so contribute to land shortages. A betterment levy proposed in 2006 (the Planning Gain Supplement) was never adopted.
- **Australia** has seen numerous attempts to implement betterment levies. A 1967 Sydney Betterment Levy was set at 30% and applied only at the fringes of that city. It raised $9 million, but was repealed in 1973. Only in the Australian Capital Territory has a betterment tax survived, facilitated by the ACT's leasehold tenure system (the "Lease Variation Charge" is 75% of the uplift in value). However, it only generates about $15m, far less than expected when it replaced the previous scheme.
- In **Denmark**, a special land development gains tax (*frigørelsesafgift)* was imposed when farmland was legally transferred to an urban zone. This was equivalent to about 50% of the increase in value resulting from the rezoning. The tax was repealed in 2004.
- In **Poland**, land is subject to a tax of up to 30% of the uplift in value if it is sold within five years of rezoning.
- In **Colombia**, betterment levies (*Contribución de Valorización)* have been in place since 1921 as a cost-recovery mechanism Levies collected must be used exclusively to finance the project generating the increase in value. Since 1997, cities are required to capture 30% to 50% of the uplift in value from rezoning. However, it took some years for cities to start collecting revenue. Apart from Bogatá, revenue collected appears to be small. Further, evidence suggests that, to avoid paying tax under this mechanism, landowners have been reluctant to sell their land.

Source: Day, 2006; Walters, 2013.

A review of betterment levies shows that, in practice, they are difficult to sustain. They are easily characterised as "new taxes" and can become politically contentious. The final report of the New South Wales Planning and Environment Commission in 1975, following the abandonment of the Sydney Betterment Levy, highlighted the practical and political difficulties associated with implementing betterment levies:

> No government in Australia has yet been able to devise a politically viable betterment tax. The termination of the last betterment tax in New South Wales is probably too recent for the State Government to agree to the imposition of some form of betterment in the foreseeable future. Yet many would argue that it was successful as a tax, that it was relatively simple to implement, that it gained wide

> acceptance, and that it produced funds that were necessary to implement plans … the Commission believes that the possibility of introducing a similar type of tax should not be discarded. (NSW Planning and Environment Commission, 1975, p. 98; quoted in Day, 2006, p. 222)

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.

A second common objection to betterment levies is the difficulty inherent in accurately valuing land (separate from improvements). This is also discussed in Chapter 9, in the context of land value rating systems:

> The general premise that if the state creates value by declaring land developable, the state should be a beneficiary of that value, is unimpeachable. Knowing exactly what that value might be or when return of it to the state might take place is quite another matter. This is not just a question of the difficulties planners face in assessing the capacity to make obligations (in Britain) or the level of contribution to infrastructure (in France). How to arrive at land values is a fundamental issue that appears to confound everyone from real estate experts to government officials. (Booth, 2012, p. 89)

Market participation

Land value capture can also be undertaken through public agencies buying and selling land, capturing betterment in the process. In Australia this has been common practice by states to varying degrees:

> All States either have one or more development corporations in operation or retain the option of setting these up to tackle particular urban regeneration or growth management challenges. In some cases, most notably SA [South Australia], development corporations have been used to bank large areas of future urban land, using one-off special purpose funds from the Commonwealth. The subsequent release and development of this land has enabled the State Governments in question to capture all of the value uplift created in the process. (SGS Economics & Planning, 2007, p. 11)

In the early 1970s, the South Australian government purchased most of the land within the Urban Containment Boundary, capturing the capital gain for the public and the betterment as it was rezoned and serviced. Of the Australian state land corporations established in the 1970s, the South Australian Land Commission was the most comprehensive in terms of scope, and largely restricted its activities to the retailing and wholesaling of land (rather than development).

The South Australian approach is a long-term enterprise; if a government agency purchased large volumes of land at market rates today for development and sale over a number of years or decades, the anticipated future uses would be incorporated into the price. This would be a weak way of capturing value increases.

This option would require identifying or establishing a suitable agency for the purpose, and would entail some significant upfront costs.

Negotiated contributions

After numerous attempts at trying to implement land value uplift taxes and betterment levies, the UK Government now provides for local planning authorities to negotiate planning agreements with developers that involve contributions of cash, land, or other concessions (including the provision of affordable homes). This is effectively a type of value capture. Planning agreements have been used to support public benefit from a number of major developments. But SGS Economics & Planning notes that they are not universally successful:

- some local authorities have proved far better than others at negotiating realistic contributions without inhibiting development;
- in other cases, however, developers complain of protracted delays and unrealistic expectations; and
- in still other areas, authorities, perhaps stung by such criticisms, have secured far less than might reasonably have been expected in developer contributions. (SGS Economics & Planning, 2007, p. 21)

Section 5.7 also discusses weaknesses with this approach. Overcoming these challenges would require support from central government, possibly through guidelines, to assist councils in effectively negotiating "planning gain".

What is the potential for value capture in New Zealand?

Tauranga City Council submitted on land value capture that

> [g]iven that land values can increase many times over when land is rezoned for urban development this idea may be truly transformational in terms of the ability to deliver new affordable housing and to reduce reliance on development contribution funding. (sub. 47, p. 19)

An Auckland Council report on value capture (2013f) undertaken as an action in the Council's Housing Action Plan assessed the potential for betterment levies in Auckland, and recommended against introducing them. Using land value comparisons and evidence about the effect of historical rezonings, they estimated that the 90 million m² of land that Auckland would rezone as "future urban" over the next 30 years would increase by between $3.09 a square metre to $26.35 a square metre, meaning that up to $1.28 billion would be able to be realised from a betterment levy depending on its rate and the increase in value (Table 10.4).

Table 10.4 Estimates of value capture revenue in Auckland

Land value change	Estimated net land value increase	Projected revenue for 5% value capture	Projected revenue for 10% value capture	Projected revenue for 30% value capture	Projected revenue for 60% value capture
Low: $3.09 per m²	$250m	$13m	$25m	$75m	$150m
Medium: $10.81 per m²	$876m	$44m	$88m	$263m	$525m
High: $26.35 per m²	$2 134m	$107m	$213m	$640m	$1 280m

Source: Auckland Council, 2013f.

Despite the potential to raise revenue, the report recommended against introducing a betterment levy because it concluded that:

- a betterment levy is unlikely to increase land supply or accelerate development;
- a betterment levy has the risk of increasing house prices as landowners pass on the cost; and
- it is administratively difficult to determine the land value change attributable to the rezoning for each property, which is likely to result in legal challenges.

Grimes and Young (2010) analysed whether 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 9 km of a train station following the announcements to be from $217 million to $244 million. The total cost of rail improvements across Auckland was about $2.65 billion, of which only a proportion was for the Western Line.

Would land capture mechanisms increase land supply or accelerate development?

There are two mechanisms land supply and development of land would be encouraged as a result of value capture.

First, it would discourage land banking by reducing a landowner's expectation of future price increases. Given the costs to holding undeveloped and under-developed land, with a weaker expectation of future increases a landowner will be encouraged to develop land or sell it to someone who will.

Second, the Council can receive revenue that would allow it to increase its investment in infrastructure necessary for future land developments. More serviced land creates more options for land developers, and

also reduces a landowner's expectations of future price rises. The report from Auckland Council does not take these effects into account.

Would costs be passed on to landowners?

The Auckland Council report correctly identifies that the cost of the value captured by council would be shared between the landowner, developer and final purchaser, depending on their relative demand elasticities:

> The tax burden is more likely to be shared among land owners developers and house buyers. The tax share borne by each party and the effect on property prices will depend on the prevailing market conditions. This could be demonstrated by using an assumption. If, for example, land owners pass forward 80% of the VCR [value capture rate] to buyers (as the demand is strong), the house prices are likely to increase by 0.5% when VCR is at 5% and 5.2% when VCR is at 60% of the land value increase. However, during housing booms and busts, pure tax effects would be overshadowed by market forces. (Auckland Council, 2013f, p. 4)

However, the expectation that a value capture mechanism would increase housing prices does not take account of the opportunity such a mechanism could afford to unlock greater effective land supply through infrastructure investment. An additional supply of infrastructure-serviced land would not only depress land prices, but also reduce the ability of landowners to pass on the cost of value capture to buyers. This is particularly the case where additional funding means the provision of growth-enabling infrastructure can be more responsive to demand, rather than rationed.

Should a value capture mechanism be ongoing or one-off?

One conceptual problem with ongoing capture mechanisms (such as land value increment taxes) is whether all increases in land prices are unearned. Conceivably, owners can improve the value of their land through site works (such as drainage or landscaping).

Potentially more problematic is the treatment of value created through the provision of infrastructure funded by a landowner/developer, including through development contributions. When development contributions fund some or all of the cost of infrastructure, the increase in land value that results can no longer be viewed as "unearned".

F10.11 No reasonable argument exists for capturing increases in property values resulting from infrastructure builds that developers are required to fund through contributions, as the uplift is not "unearned".

A case exists for capturing the value uplift that resulted from community action not financed by landowners/developers.

There are also significant distributional effects to an ongoing mechanism, where owners lack significant income streams (eg, many retirees). Chapter 9 discusses existing mechanisms to manage this situation (such as rates-postponement schemes).

One difficulty with one-off levies is that the market is likely to anticipate future rezoning or infrastructure provision, so that, when the public action that provides the betterment actually occurs, the immediate increase in value does not reflect the size of the windfall:

> [I]t seems clear that any value capture strategy which relies solely on market valuations of property at the time of 're-zoning' is likely to be unworkable, simply because, the market tends to anticipate up-zonings. We recommend that, again, regardless of the value capture method applied in New Zealand, the value of development rights should be assessed separately from the market circumstances of any particular transaction subject to the betterment levy. (SGS Economics & Planning, 2007, p. 30)

The office of the Valuer-General at Land Information New Zealand has confirmed that valuation processes for rating purposes are intended to provide a market value and, as such, do price in anticipated rezonings.

Comparing models

Table 10.5 compares how different value capture approaches might apply.

Table 10.5 Comparison of value capture approaches

	Ongoing land value increment tax	Local betterment levies	Participation in the market
Effect on land supply	An ongoing land value increment tax would encourage landowners to release land for development, by significantly reducing their expectations for future land value increases.	Locally applied betterment levies could fund incremental improvements to land supply, but would not have a systematic effect.	An agency participating in the land market could purchase and release to developers large volumes of land. It might also increase the supply of land for development by private landowners by: • reducing their expectations of future land value increases; and • developing land so as to pre-empt the possibility of purchase by the agency.
Implications for urban form	A land value increment tax might encourage less dense development by depressing land prices.	Betterment levies are typically used to fund major infrastructure projects that allow the redevelopment of existing areas, and might encourage more dense redevelopment of built-up areas such as town centres.	Participation in the market for land could allow the release of sites on a scale that would enable better planned and denser developments.
Sustainability	The experience in other countries is that land value increment taxes are difficult to sustain over the long term. In the short term, they can worsen land shortages as owners hold out in anticipation that the policy on land value increment taxes will be repealed.	Betterment levies are suitable for large, one-off projects that are likely to be episodic.	Australian experience shows that the model where agencies participate in the market for land is a sustainable model for making land available for development over time.
Value captured	An ongoing land value increment tax could be expected to generate significant revenue. The amount of value captured would depend on the level of the tax.	Local betterment levies should capture some of the localised value increase while leaving some for landowners.	The amount of value captured by participation in the market will depend on whether: • the agency is able to influence or anticipate zoning changes better than the market; and • the agency is able to hold land for sufficient periods of time so that value can increase.
Conclusion	A land value increment tax is the most comprehensive and efficient approach. However, its history of failure overseas means that it should only be considered with bipartisan political commitment.	Betterment levies are an attractive way to fund infrastructure for large, one-off projects, particularly in urban redevelopment. However, in the New Zealand context, targeted rates (see Chapter 9) are likely to provide similar benefits.	A public agency with the ability to acquire, hold and trade in land has the potential to generate significant revenue that could be used to fund growth-enabling infrastructure.

Land value increment taxes and betterment levies have chequered histories in New Zealand and other countries. Given the above recommendation to establish a UDA, its participation in the land market, backed by powers of compulsory acquisition, would seem to be the best way of allowing the UDA to capture the value uplift that results from public action such as upzoning.

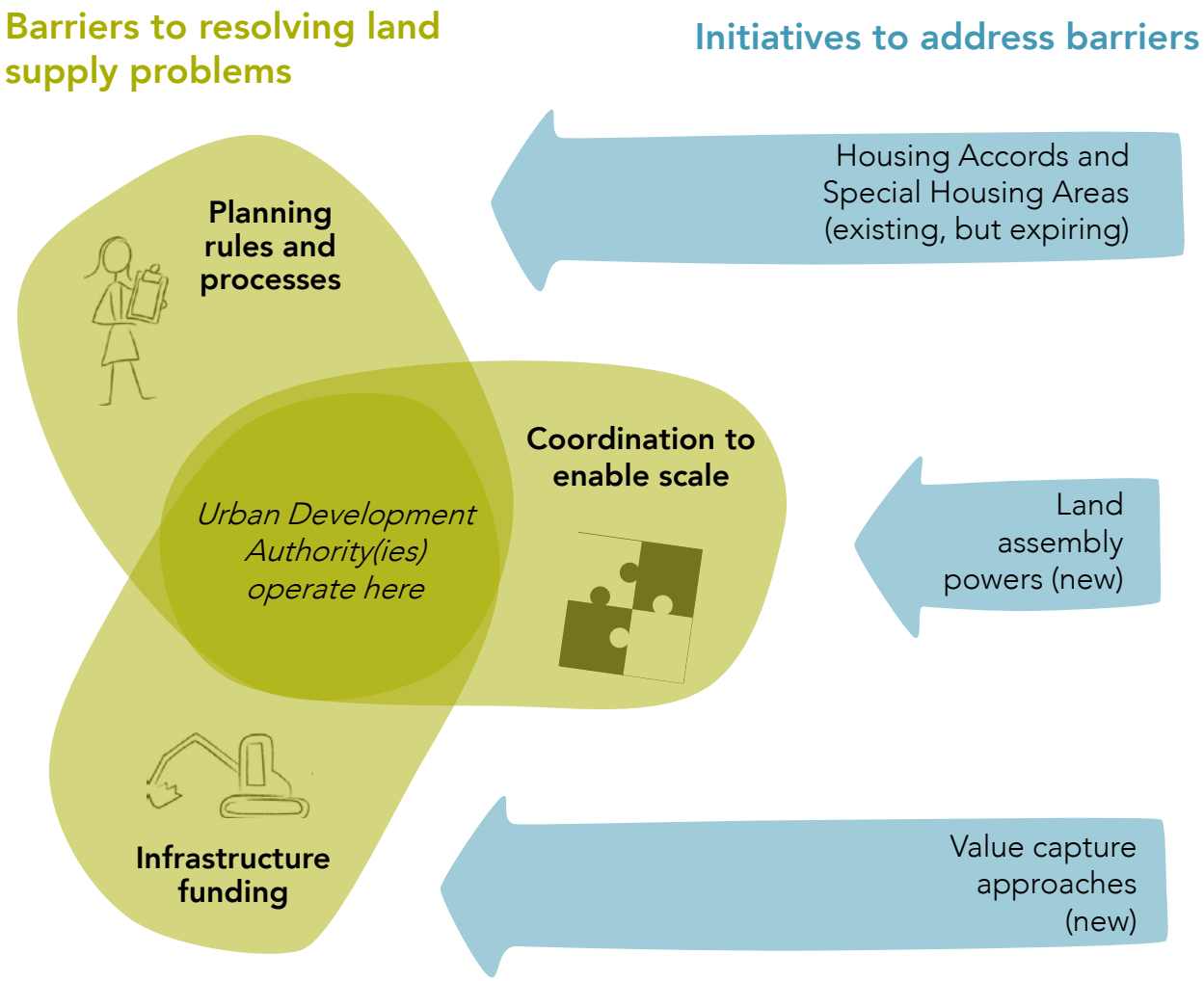
F10.12 A good case exists for the public to capture unearned land value increases that result from public action. But land value increment taxes and betterment levies have proved difficult to sustain in other countries.

F10.13 An Urban Development Authority may be able to capture some portion of unearned land value increases through participation in the land market.

10.5 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. The scale of the current housing shortage also justifies more interventionist approaches that will unlock land for large-scale developments to alleviate housing shortages and housing costs. A UDA could play an important role at the nexus of a number of barriers to land supply identified in this report (Figure 10.3).

Figure 10.3 How a UDA might address barriers to resolving land supply



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 2012 report on *Housing affordability*, these areas also have a material impact on housing affordability. However, unless land supply is addressed, any gains in these areas are likely to accrue not to homebuyers but to landowners.

One or more UDAs could play a valuable role in this area as well. By reducing regulatory risk, a UDA can 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.

Councils and their elected representatives also need to take the lead in persuading their communities of the benefits of growth. These are difficult conversations. Facilitating growth requires communities to change, and change is hard. Some people will lose from that change. But the community as a whole, and New Zealand, will benefit from it. As described in Chapter 2, larger cities provide their residents with increased amenity and economic opportunities. Councils need to lead better conversations that include their whole community about how growth is going to be accommodated.

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. Where councils and infrastructure providers try to tightly manage where and when that growth occurs (and where it may not occur), they contribute 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 hurt the wellbeing of individuals, families, communities and the nation.

This is a vicious cycle that must be addressed by unlocking land supply. No single or simple solution exists. A number of changes, as outlined in this report, are necessary.

Summary of questions

Chapter 3 – Integrated planning

Q3.1	Is there other evidence of the benefits or costs from New Zealand's spatial planning processes that the Commission should be aware of?
Q3.2	How could the longer-term development and infrastructure needs of cities better align with central government's fiscal cycle?
Q3.3	Are there other functions and activities that should be included in a new legislative planning avenue for cities?
Q3.4	What processes or mechanisms should be used to ensure that proposals for new land-use regulation in future spatial plan are subject to rigorous and independent scrutiny?

Chapter 4 – Supplying and releasing land

Q4.1	Should the public have improved access to property data such as the content of District Valuation Rolls and property sales data?
Q4.2	What are the merits of statutory controls on subdivision covenants, such as time limits, restrictions on the subject matter in them, providing councils with powers to override them, or creating mechanisms to reduce the barriers to extinguishing them without unanimous consent?
Q4.3	What impact would further narrowing eligibility to make further submissions have on plan change processes? If eligibility should be narrowed, which parties should be excluded?
Q4.4	How should eligibility for notification and consultation on site-specific proposed plan changes be defined? Would the definition used in the HASHA Act or the 2009 RMA amendments be preferable?
Q4.5	What has been the experience of using independent commissioners to make planning decisions? Do independent commissioners provide sufficient rigour and impartiality to justify further limits on appeal avenues? Would there be merit in allowing local authorities to reject recommendations from independent commissioners?

Chapter 5 – Regulations and approval processes

Q5.1	Do other land use rules impose costs above their benefits? What evidence exists of excess costs?
Q5.2	What would be the costs and benefits of nationally standardising land use rules around the provision of telecommunications, gas and electricity infrastructure across all District Plans?

Q5.3 Does introducing nationally consistent land use rules or specific types of residential development have other possible benefits that the Commission should consider? What types of land use rules should be made nationally-consistent? Why?

Q5.4 Would national direction on what residential land-use activities should be 'permitted' in RMA Plans provide net benefits? What sorts of activities should such a direction focus on?

Chapter 6 – Planning and delivering infrastructure

Q6.1
- What are the main advantages and disadvantages of development agreements?
- What, if any, barriers exist that unnecessarily limit the uptake of development agreements?

Q6.2 What approaches do councils use to match infrastructure investment to changing demand? How successful are they?

Q6.3 How effective are existing initiatives to facilitate standardisation of approaches to asset management, resource sharing, and dissemination of good practices?

Q6.4
- Is the designation process sufficiently responsive to allow major infrastructure projects that unlock new land for housing?
- Should the default duration of designations be changed?

Q6.5 Has the SmartGrowth Property Developers Forum, or similar initiatives in other regions, been effective in managing tensions between developers and councils?

Q6.6 Is there a case for greater consistency of infrastructure standards? If so, what types of infrastructure would benefit from greater consistency, and at what level (regional or central)?

Q6.7
- What approaches do Councils take to facilitate coordination with infrastructure providers?
- Would there be benefit in establishing infrastructure forums modelled on the Auckland Infrastructure and Procurement Forum in other high growth cities?

Chapter 7 – Paying for infrastructure

Q7.1 Is it correct that 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?

Q7.2 Are there any barriers that are preventing developers from challenging development contributions?

Chapter 8 – Governance of transport and water infrastructure

Q8.1	What other issues, if any, relating to the governance of transport infrastructure should the Commission be aware of?
Q8.2	Are there significant scale economies in the provision of water infrastructure that could improve the efficiency of provision that are not being realised in New Zealand's high-growth cities?
Q8.3	Would greater integration and clarity within the statutory and legal frameworks for water supply, wastewater and stormwater assist councils in providing the water infrastructure necessary to support urban growth?
Q8.4	Does a case exist for introducing access, quality and price regulation for water services in New Zealand?
Q8.5	How could the governance and funding arrangements for water infrastructure be improved to encourage providers to be more responsive to demands for new connections to the water network?
Q8.6	Do the existing checks and balances that apply to Watercare provide sufficient oversight of Watercare's infrastructure growth charges? If not, what alternative measures would be most appropriate?
Q8.7	Are there other regulatory requirements that apply to councils that should be extended to include CCOs?

Chapter 9 – Shaping local behaviour

Q9.1	Do the procedural requirements of the RMA's Schedule 1 discourage local authorities from undertaking more inclusive or innovative public engagement on city planning proposals?
Q9.2	Does scope exist to introduce mechanisms such as the Brisbane neighbourhood plans into the New Zealand planning and development system? If so, how would it be implemented?
Q9.3	Would there be merit in a National Policy Statement relating to the provision of adequate land for housing? What would be the costs and benefits of such a statement?
Q9.4	Would there be merit in expanding existing powers in the RMA to enable Ministers to direct changes to District Plans and Regional Policy Statements that provide insufficient development capacity to meet population growth? What would be the costs, benefits and implications of such a move?
Q9.5	What reason is there to think that the variance around assessed land values is different to assessed capital values?
Q9.6	What are the costs and barriers for a council in transferring from a rating system based on capital value to one based on land value?

Q9.7 Is there merit in providing councils with the ability to levy special rates on vacant properties – an idle land tax?

Chapter 10 – Planning and funding our future

Q10.1 What are the important design features of an Urban Development Authority? What are the risks with this approach, and how can they be managed?

Findings and recommendations

The full set of findings and recommendations from the report are below.

Chapter 2 – Cities, growth, and land for housing

Findings

F2.1	The optimal city size from the perspective of the nation may be different from the perspective of local residents.
F2.2	Specific planning or infrastructure policies have differing effects on the ability of cities to grow and use land efficiently. Some policies may counteract or offset others. Ensuring that land use policies and transport infrastructure investments are aligned is particularly important for cities such as Auckland, where geography adds further constraints to growth.
F2.3	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 house prices than in new house construction.
F2.4	There are longstanding concerns about the ability of New Zealand's planning systems to respond to the need for new housing, and about the extent of constraints placed on development.
F2.5	The idea that urban design can ameliorate social problems is longstanding, and continues to be promoted through initiatives such as Special Housing Areas.
F2.6	Proponents of good urban design articulate the consequent benefits well, but appear to take much less account of the costs of individual design requirements or their aggregate effects.
F2.7	The public have always shown a strong interest in planning matters. Over time, successive planning frameworks have included more formal rights for the public to be consulted and/or object to land use rules and proposals.
F2.8	Land values in major New Zealand cities and high-growth areas increased significantly in the middle of the last decade, both in nominal terms and as a share of total property values.
F2.9	High land prices encourage the production of larger and more expensive housing. In New Zealand, the average size of new dwellings has increased by more than 50% since 1989.
F2.10	New Zealand cities have differing intensification profiles. Wellington and Hamilton have seen significant intensification close to the city centre. In other cities, the biggest contribution to intensification has occurred in outlying suburbs.

F2.11 No consistently collected or comparable data is available on the stringency of land use regulation in New Zealand.

F2.12 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.

F2.13 Stringent land use regulations have a disproportionate impact on the less well-off and put pressure on public finances.

F2.14 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.

F2.15 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.

Chapter 3 – Integrated planning

Findings

F3.1 A number of parties expressed concerns about the interaction of the three main planning Acts, and their collective impact on the ability of local authorities to coordinate land use, transport and infrastructure decisions.

F3.2 Most of the territorial authorities that are the focus of this inquiry have spatial plans, or are preparing them.

F3.3 Inquiry participants report a number of benefits from New Zealand's spatial planning processes, including greater intra-regional cooperation and understanding, more efficient infrastructure use and investment, and a better ability to respond to crises or new policy initiatives.

F3.4 Most of New Zealand's spatial plans 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.

F3.5 Infill and intensification targets that are set too rigidly or too far ahead of consumer preferences or market viability can reduce the supply of development capacity.

F3.6 The New South Wales Urban Feasibility Model is a leading practice tool that can be used to develop and test commercially viable brownfield land-use rules.

F3.7 A number of local authorities have goals in their spatial and RMA plans to protect high-class agricultural land from residential development.

F3.8 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.

F3.9 The expansion of cities is not the largest threat to 'elite' or 'high-class' productive land.

F3.10 Zoning practices that require large minimum lot sizes in rural areas may not be the best way of protecting life-supporting soils and are unlikely to encourage the most efficient use of land for housing.

F3.11 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. In some cases, the highest value use will be residential housing; in others, it will be agriculture or horticulture.

F3.12 Duplicative statutory consultation requirements make it time-consuming and costly for local authorities to translate spatial plans into RMA regulatory plans.

F3.13 Strengthening the recognition in the RMA of plans prepared under other statutes would be unlikely to significant speed up the translation of spatial plans into District Plans.

F3.14 Removing or relaxing RMA consultation and analytical requirements to enable faster translation of spatial plans into District Plans would increase the risk of poor-quality regulation.

F3.15 The best opportunity to integrate spatial planning and land-use regulation is to create a new, legislative avenue for larger cities. Such an avenue would allow a local authority to develop a plan that combined:

- 30-year infrastructure strategies;
- longer-term transport planning;
- longer-term thinking about the growth of the city; and
- the development of associated land-use rules.

F3.16 Large numbers of objectives in spatial plans, and goals that have no strong relation to the use of or demand for land, are likely to complicate the implementation of these plans and the development of efficient regulation.

F3.17 The timely and adequate provision of social services (such as education and health) matters for the growth of cities. Central government is responsible for planning for and funding these services. However, it has played a limited role in developing New Zealand's current spatial plans.

F3.18 One significant challenge in moving to an integrated planning avenue for larger urban centres is reconciling a city's longer-term development and infrastructure needs with much shorter central government planning and fiscal cycles.

F3.19 Central government could bring its regulatory expertise and capability to bear so as to properly test proposals for new land-use rules and regulations in future spatial plans. Possible options include peer review by the Treasury or the establishment of an Independent Hearings Panel.

Recommendations

R3.1 Urban local authorities that wish to set design infill/intensification targets should ensure that their District Plans provide sufficient commercially viable development capacity.

R3.2 The Ministry for the Environment should explore the potential to develop an Urban Feasibility Model that New Zealand local authorities can use.

R3.3 High-growth territorial authorities should review their zoning rules for rural land, to ensure they provide the right balance of promoting efficient use of land for housing and minimising reverse sensitivity risks.

R3.4 Large land price differentials between different types of zones, such as those observed in Auckland, should be a trigger for local authorities to review the adequacy of their land supplies and zoning decisions.

R3.5 A new legislative avenue should be designed to focus spatial plans on activities that:

- are of high importance to the functioning of cities and the provision of development capacity for housing (eg, land supply, infrastructure provision, transport services);
- relate closely to the use of land or space and the management of negative externalities; and
- are most efficiently dealt with at a local level and through local authorities.

R3.6 The new planning avenue should be voluntary to allow local authorities to choose the statutory planning mechanisms that best suit their circumstances.

R3.7 Future plans prepared under the new legislative avenue should be developed in partnership with the full set of central government actors whose services matter for the functioning of cities. Given the fiscal implications of greater central government involvement in spatial planning, both Cabinet and the relevant local authority should approve such plans.

R3.8 The new legislative planning avenue should include processes to encourage robust regulatory analysis and development, as section 32 of the Resource Management Act is designed to do.

Chapter 4 – Supplying and releasing land

Findings

F4.1 Many urban local authorities have goals for the supply of land to meet future residential growth, although the form and strength of the supply goals vary between councils.

F4.2 Only Auckland Council and the SmartGrowth partnership have quantified land supply targets.

F4.3 Local authorities provide only limited public reporting on their performance against their land supply targets.

F4.4 The readiness of land matters for the efficiency of the housing supply chain. Large amounts of un-zoned land may put little competitive pressure on land and house prices, because of the time it takes to rezone land for residential use. Zoned and serviced land will provide more pressure, as this types of land can be developed more quickly.

F4.5 A need exists for better and more regular data on dwelling production, especially housing additions and demolitions. Existing information provided through building consents is of poor quality.

F4.6 Covenants established in new subdivisions (building schemes) are increasingly common and impose ever more detailed restrictions on purchasers.

F4.7 Covenants established in building schemes can reduce the supply of land for housing now and in the future, and increase the cost of constructing dwellings.

F4.8 With the exception of Auckland and Christchurch, there does not seem to have been a stocktake of public land holdings in high-growth cities to identify land that could be released for residential development.

F4.9 Opportunities may exist to use Crown and local authority land holdings in other cities to help offset the nationwide shortfall of lower-priced housing.

F4.10 High-growth councils take longer, on average, than other local authorities to make plan changes operative. Consultation obligations and appeals are significant drivers of longer timeframes for plan changes.

F4.11 Reforms that limit the ability of directly affected parties to make further submissions on proposed plan changes would be undesirable.

F4.12 Giving local authorities 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.

F4.13 Both engagement with affected parties on proposed plan changes ahead of their notification and circulation of draft plan changes for comment are leading practices that may help to reduce the incidence of appeals.

Recommendations

R4.1 High-growth local authorities should express their land supply targets in terms of zoned and serviced land and report publicly on their performance.

R4.2 Local authorities should monitor and report on dwelling completions and net changes in the dwelling stock, relative to expected and actual population and household growth.

R4.3 The Ministry of Business, Innovation and Employment, Statistics New Zealand and territorial local authorities should work together to improve the quality of official statistics available from the building consent form as a priority.

R4.4 The Ministry of Business, Innovation and Employment, in conjunction with relevant local authorities, should inventory public land holdings in all high-growth cities to identify sites that could be used for housing.

R4.5 Local authorities should set policies for the publishing of and consulting on draft plan reviews or plan changes of interest to the wider community ahead of notification, unless compelling reasons exist for not doing so.

R4.6 The Ministry of Business, Innovation and Employment and the Ministry for the Environment should, once the work of the Auckland and Christchurch Independent Hearings Panels (IHPs) is complete, evaluate the IHP processes, with a view to deciding whether IHPs should become a permanent feature of the planning system.

Chapter 5 – Regulations and approval processes

Findings

F5.1 Balcony or private open space requirements for apartments create costs that appear to outweigh any likely benefits.

F5.2 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 the Building Code.

F5.3 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.

F5.4 Building height limits contribute to housing shortages and higher house prices, and force cities to move outwards, increasing transport costs for some members of the community. 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.

F5.5 Multiple and conflicting objectives in RMA plans reduce the ability of those plans to provide sufficient land and development capacity.

F5.6 Inadequate underpinning analysis for District Plan rules and provisions is a key source of unnecessary regulatory costs for developers.

F5.7 District Plan provisions which impose controls on the internal design and construction of building that are more stringent than standards set under the Building Act may be unlawful.

F5.8 Auckland Council's commissioning of detailed benefit-cost 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.

F5.9 Strongly diverging views exist about the appropriate weighting given in the RMA to urban growth outcomes and housing relative to other outcomes.

F5.10 Arrangements to bring all parts of council with a potential impact on a development project together and provide a "one-stop shop" for developers can help reduce transaction costs and unnecessary delays.

F5.11 Opportunities exist in New Zealand to reduce costs and delays by making greater use of electronic planning tools.

F5.12 The Commission is not convinced that the benefits of nationally consistent land use rules for specific types of residential development outweigh the costs.

F5.13 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.

F5.14 Inclusionary housing policies are sometimes characterised as compensation for the negative impacts on the poor of the planning system. If the planning system is the proximate cause of declining affordability, planning system reform should be the priority response.

F5.15 Even with reform, some planning systems may continue to impose a degree of restriction on the supply of housing or struggle to resolve longstanding supply deficits quickly. Inclusionary housing policies may therefore be a "second best" response to housing affordability issues in these areas.

F5.16 Inclusionary housing policies that require negotiations between councils and developers, or high degrees of discretion on the part of local authorities, are likely to create uncertainty and delays.

F5.17 Incentive-based inclusionary housing policies are more likely to fit with New Zealand's zone-based planning system and (relatively) strong property rights.

F5.18 Local authority polices on inclusionary housing are likely to struggle without a range of other supporting polices, most of which require support from central government.

Recommendations

R5.1 Urban territorial authorities should remove District Plan balcony / private open space requirements for apartments.

R5.2 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, local authorities should review minimum apartment size rules in their District Plans, with a view to removing them.

R5.3 Urban territorial authorities should remove District Plan minimum parking requirements, and make more use of traffic demand management techniques.

R5.4 Local authorities should undertake robust cost-benefit analyses before considering the introduction of building height limits, and should lift current limits where it cannot be demonstrated that the benefits outweigh the costs.

R5.5 Local authorities should review District Plan controls on the design and construction of buildings or dwellings that exceed standards set under the Building Act, with a view to removing them.

R5.6 The Government should introduce amendments to the RMA to clarify the role and importance of housing and urban environments.

R5.7 In reviewing their District Plans, local authorities should move more residential land-use activities into "permitted" or "restricted discretionary" status.

Chapter 6 – Planning and delivering infrastructure

Findings

F6.1 Infrastructure costs account for a significant share of the cost of new dwellings. Costs are location-specific and consist primarily of on-site infrastructure construction costs, development contributions and connection fees for private utilities.

F6.2 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.

F6.3 Councils are required to undertake a relatively rigorous infrastructure planning processes – a reflection of the fact that councils are asset-intensive organisations.

F6.4 Councils tightly control the supply of infrastructure to support urban growth. This is a prudent approach from the perspective of managing costs and risks. However, it can constrain the supply of land for housing. In turn, this can contribute to higher land prices by reducing competition among developers and reinforcing expectations among investors of a scarce supply of land for housing.

F6.5 Development agreements enable developers to take responsibility for building major infrastructure. This shift has the potential to generate a swifter supply of infrastructure at a lower cost.

F6.6 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 approached used by Selwyn District Council is a good example of this leading practice.

F6.7 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.

F6.8 Councils can unlock land supply by enabling growth in areas where there is spare capacity 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.

F6.9 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.

F6.10 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.

F6.11 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.

F6.12 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. Also, it has potential to reduce the operating expenditure of councils and to delay or avoid capital investments in new infrastructure.

F6.13 A number of good practices enable consistency in council infrastructure standards set by councils. These include the widespread use of the *New Zealand Standard Land Development and Sub-Division Infrastructure* and varying approaches to regional consistency.

Recommendations

R6.1 When councils refer to the supply of land for housing, they should be clear about the readiness of land for building (eg, un-zoned but planned-for future zoning; zoned; zoned and serviced; zoned, serviced and consented).

R6.2 Councils should identify areas where there is existing infrastructure capacity and ensure that planning rules do not prevent intensification from occurring in these areas.

R6.3 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.

R6.4 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.

R6.5 Government should adopt the Local Government Infrastructure Advisory Group's recommendation to amend the Land Transport Management Act to allow pricing on existing roads where there is a business case that enables effective network optimisation.

R6.6 Councils' asset management systems should feed into decision making about optimal infrastructure standards. The data used to inform standard-setting should be shared openly with the development community.

R6.7 If councils determine that a good case to change infrastructure standards exists, then developments that already have consent should be exempt from the change. Alternatively, developers should be compensated for any additional costs incurred as a result of the change.

Chapter 7 – Paying for infrastructure

Findings

F7.1 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.

F7.2 Recent assessments have not identified serious concerns regarding local authorities' use of debt.

F7.3 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.

F7.4 Considerable scope exists for councils to increase their use of targeted rates in order to recoup the costs of growth-enabling infrastructure over a longer timeframe.

Recommendations

R7.1 Evaluation of the financial prudence and reporting regulations should monitor 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.

R7.2 Councils should include information in their development contributions policy about the relationship between dwelling floor area and the cost of providing infrastructure services. If smaller dwellings impose lower costs on the infrastructure network, this should be reflected in lower charges.

R7.3 The Local Government Act should be amended to make clear that developers may formally request that councils construct growth-enabling infrastructure, to be repaid through targeted rates on the properties that benefit from the infrastructure connections, and obliging Councils to consider such requests.

Chapter 8 – Governance of transport and water infrastructure

Findings

F8.1 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 NZTA'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.

F8.2 The three waters have been identified as a relatively poor performing infrastructure class. In comparison with other jurisdictions, management of water assets in New Zealand is very fragmented. Strengthening commercial disciplines would provide greater imperative for weaknesses in the water sector's regulatory and institutional framework to be addressed, and may entail economic regulation of water services.

F8.3 The primary accountability documents for Watercare and Auckland Transport (the Statement of Intent) do not give effect to the objectives in the Auckland Plan to increase the city's supply of new dwellings.

Recommendations

R8.1 Auckland Transport and Watercare should amend their SOIs so that they are aligned with the Auckland Plan and its target for new dwellings. The SOIs should include performance measures relating to the efficient rollout of new infrastructure to support an increased supply of new dwellings.

R8.2 Auckland Transport and Watercare should include performance measures in their SOIs that encourage greater coordination between CCOs and with Auckland Council, building on Auckland Council's current review of CCOs.

R8.3 Watercare should change their approach to calculating infrastructure growth charges to better reflect the underlying economic costs of supply in different locations and for different types of dwelling.

R8.4 The requirement to consider development agreements that applies to councils should also apply to CCOs.

Chapter 9 – Shaping local behaviour

Findings

F9.1 Groups that have high home ownership rates have higher rates of participation in local government elections.

F9.2 Restricted housing supply will tend to inflate the value of existing homes.

F9.3 Existing homeowners have an incentive to be risk-averse in opposing developments that could affect the amenity and value of their home.

F9.4 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.

F9.5 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.

F9.6 The influence of homeowners in local government elections and consultation processes promotes local regulatory and investment decisions that have the effect of reducing housing supply.

F9.7 Tools such as statistically robust and representative surveys can help to offset the tendency of planning engagement processes to be skewed towards particular segments of the community.

F9.8 Local land regulation can have consequences of national importance. If a faster release of land is to be achieved, the balance between local and national involvement in the planning and development system may need to shift.

F9.9 High-growth councils tend to see accommodating population growth or new housing development as a net cost. The construction of new dwellings increases a council's ability to fund expenditure from rating those properties over time, but overall the direct financial incentives on councils to accommodate growth are weak.

F9.10 Evidence so far from the UK's New Homes Bonus Scheme does not support introducing central government payments to councils for new dwelling construction.

F9.11 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.

F9.12 Land banking is occurring in many urban areas of New Zealand. Land banking need not require a dominant market position, only that the expected increases in land value are greater than the holding costs of land.

F9.13 Land banking is a symptom, rather than a primary cause, of land supply constraints. In New Zealand those constraints are the result of local regulatory and investment decisions.

F9.14 The holding costs of land, including rates and financing, are low relative to Auckland's current rapidly inflating land values.

F9.15 The use of capital value rating systems makes it marginally less expensive to carry undeveloped and underdeveloped land. The use of land value rating systems would encourage land flowing to its highest value uses, including more and denser housing.

F9.16 Rating based on land valuation appears to be a better proxy for ability to pay than rating based on capital valuation.

F9.17 Central government rates rebates, local government rates-postponement schemes and private reverse-equity loans provide mechanisms to assist asset rich but cash poor ratepayers to pay rates.

F9.18 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.

F9.19 Because the benefits of desirable council services (such as parks) are capitalised into land value, owners of undeveloped land also benefit from these services. As a result, land value rating provides a better match for benefits received than capital value rating.

F9.20 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 efficient use of land. Arguments used to prefer capital value rating are not strong.

F9.21 The rating exemption on core Crown land does not appear to have a principled justification.

F9.22 Removing the rating exemption on land owned by the core Crown would encourage the government to undertake more active monitoring and management of its land holdings, and to release un-needed land suitable for residential development.

Recommendations

R9.1 The Treasury, in consultation with the Department of Internal Affairs, should investigate removing the rating exemption on land owned by the core Crown, including on land used for health and education purposes.

Chapter 10 – Planning and funding our future

Findings

F10.1 Large-scale developments offer 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.

F10.2 There is a coordination failure preventing many large residential developments. Amalgamating land is a challenge in both greenfield and brownfield sites, particularly in Auckland.

F10.3 Compulsory acquisition powers can facilitate a negotiated sale, and often do not need to be exercised to be effective.

F10.4 There are a range of compulsory acquisition approaches used by authorities around the world to assemble greenfield and brownfield land for development.

F10.5 The existence of an agency with compulsory acquisition powers can encourage landowners to develop their land or to sell it to those who will.

F10.6 Any proposal for compulsory acquisition of Māori land would face sensitive Treaty issues. Any regime to compulsorily acquire land for housing developments needs to recognise both the associated risks and positive partnership opportunities.

F10.7 Circumstances exist in which the economic and societal harms that result from a housing shortage should be considered sufficient to justify the compulsory acquisition of land for the construction of housing.

F10.8 Urban development authorities can play an important role in de-risking development and bringing land to market.

F10.9 No territorial authority within the scope of this inquiry currently has an urban development agency in place. However, the Auckland and Wellington City Councils are actively considering establishing such agencies.

F10.10 It is justifiable for the public to capture some of the increase in private land value that is created by public actions.

F10.11 No reasonable argument exists for capturing increases in property values resulting from infrastructure builds that developers are required to fund through contributions, as the uplift is not "unearned".

F10.12 A good case exists for the public to capture unearned land value increases that result from public action. But land value increment taxes and betterment levies have proved difficult to sustain in other countries.

F10.13 An Urban Development Authority may be able to capture some portion of unearned land value increases through participation in the land market.

Recommendations

R10.1 The Treasury should investigate the possibility of providing an exemption from the foreign investment screening regime for developers purchasing land, providing the land is developed into housing and resold within an acceptable timeframe.

R10.2 There is a place for a UDA to lead and coordinate residential development at scale in both greenfield and brownfield settings, working in partnership with private sector developers. Legislation would be required to establish and give powers (such as compulsory acquisition) to one or more UDCs in New Zealand.

Appendix A Public consultation

Submissions

INDIVIDUAL OR ORGANISATION	SUBMISSION NUMBER
A L Christensen	007
Allison Tindale	008
Auckland 2040	028
Auckland Council	071
Auckland District Council of Social Services	022
Auckland Transport	068
Bay of Plenty Regional Council	046
Bluehaven Holdings Limited	042
BusinessNZ	016
Canterbury Earthquake Recovery Authority	061
Carrus Corporation Limited	010
Chorus	072
Commercial and Industrial Consultants Ltd	067
Community Housing Aotearoa	034
Construction Strategy Group	013
Dale Smith	031
Development Advisory Services	075
Donald Ellis	044
Environment Canterbury	020
Evan Keating	035
Federated Farmers of New Zealand	051
Foodstuffs	050
Future Proof	039
Glenn Broadbent	058
Glenn Metcalf	066
Greater Christchurch Urban Development Strategy	018
Greater Wellington Regional Council	038
Hamilton City Council	070
Hill Young Cooper	065
Horticulture New Zealand	064
Hughes Developments Limited	043
Hutt City Council	017
Insurance Council of New Zealand	009
IPENZ Engineers New Zealand	019
Jenny Campbell	006
Local Government New Zealand	054
Mike Greer Homes Ltd	048
New Zealand Council for Infrastructure Development	057
New Zealand Housing Foundation	069
New Zealand Institute of Surveyors	074
New Zealand Planning Institute	052
New Zealand Property Investors' Federation	062
New Zealand Transport Agency	073

Northland Regional Council	049
Otago Regional Council	015
Palmerston North City Council	026
Pam Johnston	060
Peter McDermott	014
Phil Hayward	041
Porirua City Council	024
Property Council New Zealand	033
Queenstown Lakes District Council	056
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
Stuart Kinnear	029
Tainui Group Holdings Limited	053
Tasman District Council	025
Tauranga City Council	047
Te Rūnanga o Ngāi Tahu	063
Te Tumu Landowners Group	040
Vanessa Scott	037
Vector Limited	011
Vincent Mullins	055
Waikato District Council	012
Waikato Environment Centre	059
Waimakariri District Council	032
Water New Zealand	030
Wellington City Council	021
Western Bay of Plenty District Council	036
Wilson Penman	001

Engagement meetings

INDIVIDUAL OR ORGANISATION

Absolute Energy Limited
Arthur Grimes
Auckland Council
Auckland Transport
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
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
McConnell Property
Mike Greer Homes Limited
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 Housing Foundation
New Zealand Planning Institute
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
Stonewood Homes Nelson
Shotover Country
SmartGrowth
Spraggs Group Limited
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
Watercare
Water New Zealand
Wellington City Council
Wellington Electricity
Wellington Water
Western Bay of Plenty District Council
Whangarei District Council
Woodlot Properties

Australia

Brisbane City Council
City of Melbourne
Department of Planning & 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

Appendix B Measuring density

Density is an important concept in urban planning, as it captures the extent to which a city is making the fullest use of its available land. However, the various approaches to measuring urban population density lead to different measures. The most commonly used method estimates average density with the following formula:

$$\text{Average Density} = \frac{\text{Population}}{\text{Urban Area}}$$

This method can lead to counter-intuitive results. According to the Demographia's *World Urban Areas* report (2015), Melbourne's density is 1 500 people/km^2 while Christchurch has a density of 2 000 people/km^2 and Auckland, 2 400 people/km^2 (Demographia, 2015). These results stem largely from the fact that Melbourne's urban area consists of many peripheral suburbs that are lowly populated.

An alternative approach is to measure population-weighted density. This method weights specific regions in the urban area on their population level. As a result, it reflects the density of the neighbourhood in which the city's average resident lives. Its application can be seen in the following example. Consider a city made up of three areas, each 10 hectares in size. The three areas contain 50, 50 and 200 people. Under average density measures, density = 300/30= 10 people/hectare. This hides the fact that two-thirds of the population lives in a region with a density of 20 people/hectare. Under population-weighted density measures, density = 15 people/hectare, a better reflection of true residential intensification (Table 10.6).

Table 10.6 An example of population-weighted density

Area	Population	Population weight	Density of area (people per ha)	Population weighted density
A – 10ha	50	50/300 = 16.6%	5	0.166x5 = 0.83
B – 10ha	50	50/300 = 16.6%	5	0.166x5 = 0.83
C – 10ha	200	200/300 = 66.6%	20	0.666x20 = 13.3
Total – 30ha	300	100%	10	Approx. 15

Nunns (2014) used a population-weighted density measure to assess major Australasian cities (Table 10.7).

Table 10.7 Population-weighted density in New Zealand and Australian cities

Year	City	Urban pop. (m)	Urbanised area (ha)	Average density	Population-weighted density
2013	Auckland	1.31m	48 642	27.0	43.1
2013	Wellington	0.40m	18 864	21.3	37.8
2013	Christchurch	0.37m	16 967	21.6	26.9
2011	Sydney	3.93m	104 137	37.8	76.3
2011	Melbourne	3.76m	136 879	27.5	45.0
2011	Brisbane	1.87m	85 319	21.9	34.2
2011	Perth	1.62m	70 798	22.9	29.8
2011	Adelaide	1.17m	50 640	23.1	29.4

Source: Nunns, 2014.

Another way to assess the intensity of cities is to measure the density of housing (eg, by measuring the number of dwellings in each hectare or square kilometre). This method provides an insight into how

efficiently land is being used in cities. Also, it avoids the pitfalls of population-based indicators, which may misinterpret overcrowding in existing dwellings as a housing supply response.

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