

PART FIVE: PRACTICAL SOLUTIONS TO PRESSING PROBLEMS

24. Planning for Auckland

24.1 Formal town planning for Auckland started in the 1920s, with wider metropolitan and regional planning commencing in the 1950s. Today, resource management and planning are core functions of local government in New Zealand, and those functions are particularly important in Auckland because of the scale and complexity of the city and region, and its rate of population and economic growth. Different local government arrangements have the potential to contribute to or detract from the current and future well-being of the region and its communities, and may be more or less cost-effective.

24.2 The Commission has explored the effectiveness of current resource management processes, identified the major resource management issues and constraints that face Auckland today and in the future, and examined the relationship between resource management planning and other core functions (such as integrating land use planning with the provision of transport and other city-shaping infrastructure). It has also explored various governance, institutional, and legislative changes that could be better suited to Auckland in the future. The Commission has drawn on a wealth of written submissions, oral submissions, and various commissioned papers, particularly “The Resource Management System in Auckland” by Hill Young Cooper (hereafter “the RMS paper”).¹

24.3 This chapter outlines the present state of resource management planning in Auckland and summarises the pressing issues for the Auckland region based on the views of informants, submitters, and the RMS paper. The chapter discusses how changes in planning processes could assist Auckland to become a more successful city-region. Options for change are explored and assessed, transition and implementation issues are identified, and the chapter concludes with a succinct summary of proposals needed to improve the delivery of resource management planning and services in Auckland.

The resource management process

24.4 The Resource Management Act 1991 (“RMA”) sets out a hierarchy of participants and plans in the resource management process. The preparation and enforcement of resource management is undertaken through policy statements, standards, plans, consents, and monitoring and compliance by the Crown, regional councils, and territorial authorities.

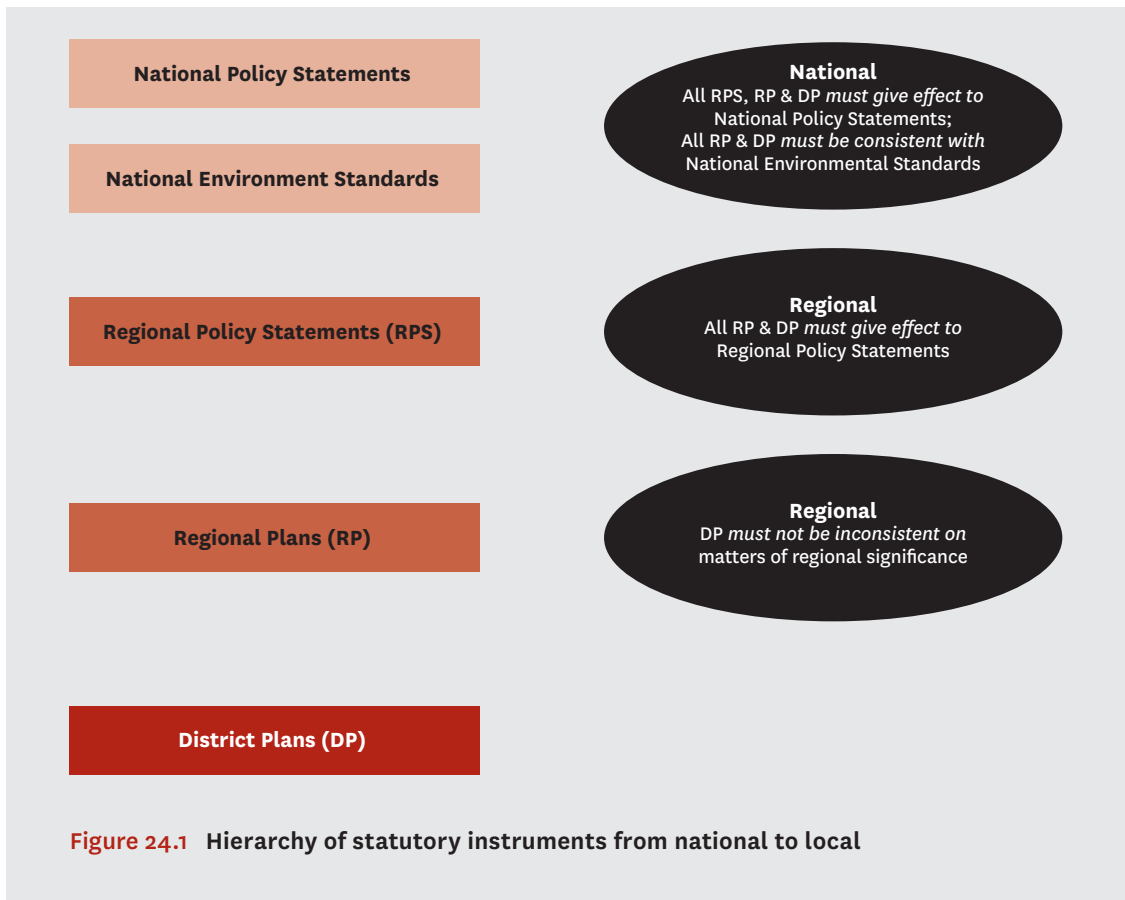
¹ Hill Young Cooper, “The Resource Management System in Auckland”, in Royal Commission on Auckland Governance, *Report, Volume 4: Research Papers*, Auckland, 2009, pp. 261–353.

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Table 24.1 Key resource management participants in Auckland

Body	Role	Key statutory instruments
Minister for the Environment	<p>Prepare national policy statements (“NPS”) and national environmental standards, including appointment of hearing body and determination of adopted policy</p> <p>Monitoring the effectiveness of the RMA including local authority performance</p> <p>Call-in of RMA applications to be heard by a board of inquiry</p>	<p>NPS – electricity transmission</p> <p>Proposed NPS – freshwater management</p> <p>Proposed NPS – renewable electricity generation</p>
Minister for Conservation	<p>Prepare New Zealand coastal policy statement, including appointment of hearing body and determination of adopted policy</p> <p>Approval of regional coastal plans</p> <p>Determining category of resource consent under regional coastal plans</p>	<p>New Zealand Coastal Policy Statement</p> <p>Proposed New Zealand Coastal Policy Statement [2008]</p>
Auckland Regional Council	<p>Integrated management of the natural and physical resources of the region</p> <p>Prepare regional policy for integrated management of natural and physical resources of the region</p> <p>Regulate soil conservation, water, natural hazards, coastal marine area, contaminated land, discharges to the environment, hazardous substances, air quality</p> <p>Prepare regional plans related to its regulatory functions</p> <p>Resource consenting related to its regulatory functions</p> <p>Inspection, monitoring, enforcement, and compliance related to its regulatory functions</p> <p>Monitoring of effectiveness</p>	<p>Auckland Regional Policy Statement</p> <p>Auckland Regional Plan: Coastal</p> <p>Proposed Auckland Regional Plan: Air, Land and Water</p> <p>Auckland Regional Plan: Sediment Control</p> <p>Auckland Regional Plan: Farm Dairy Discharges</p>
<i>Present territorial authority councils:</i>	<p>Integrated management of the effects of the use, development, and protection of land</p> <p>Regulate use of land, subdivision, and noise</p>	<p>DP – Rodney District</p> <p>Proposed DP – Rodney District</p>
Rodney District	Prepare district plans (“DPs”) related to their regulatory functions	DP – North Shore City
North Shore City		DP – Waitakere City
Waitakere City	Resource consenting related to their regulatory functions	DP – Gulf Islands
Auckland City	Administration of notices of requirements (network utilities, public works)	DP – Isthmus
Manukau City		DP – Central Area
Papakura District		DP – Manukau City
Franklin District		DP – Papakura District
		DP – Franklin District

DP = district plan; NPS = national policy statement.



The decision makers, their statutory roles, and key statutory powers are set out in Table 24.1.

24.5 The hierarchy of statutory instruments from national to local is illustrated in Figure 24.1.

24.6 The RMA became law on 1 October 2001. It closely followed the 1989 local government reform, which saw Auckland’s local government boundaries established as they are today. Among other reforms, Auckland’s 27 boroughs, counties, and cities² were reduced to the seven districts and cities. Then, as now, the relative scale of the councils varied greatly. As a result of the enactment of the RMA, a new regional policy statement (“RPS”), a regional coastal plan, and new district plans were all required to be prepared under the Act. These are termed the first-generation plans and were notified in the period 1992–2000.

24.7 The RMA has been amended several times since 1991. Over this time the role of the RPS as the overarching, integrating policy instrument for all plans has been significantly strengthened. The initial spirit of the RPS was one of guidance and integration. Today the statutory emphasis is on direction, with lower-order plans required to give effect to the

2 Tuakau, Pukekohe, Waiuku, Franklin, Papakura, Howick, Manukau, Tamaki, One Tree Hill, Onehunga, Mt Roskill, Mt Eden, Mt Albert, Auckland, Waiheke, Great Barrier, Glen Eden, New Lynn, Henderson, Waitemata, Devonport, Northcote, Birkenhead, East Coast Bays, Takapuna, Rodney, and Helensville.

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RPS.³ The Auckland Regional Council Policy Statement is explicitly expected to provide for the integration of land use and transport.⁴ All regional councils have as one of their functions the strategic integration of infrastructure with land use.⁵ It can be expected that the next version of the RPS will be significantly more important and directive than the current RPS.

24.8 Regional and district RMA policy statements and plans are subject to change and variation through a statutory process similar to that which applies to the original policy statement and plans. Throughout the Auckland region there are currently hundreds of plan changes and variations being processed to hearing and decision stage by councils, along with appeals to the Environment Court on proposed plans and plan changes and variations that are already past council decision-making stage. With extensive and lengthy public submission and hearing processes and appeal rights to the Environment Court, it typically takes five to seven years from the date that a plan is notified until it becomes operative. During this period there is overlap between the older operative plan and the new proposed plan. This can add greatly to the complexity of administration of the RMA for regulatory authorities and users alike. The cost of preparing, notifying, receiving, and hearing submissions, and dealing with subsequent appeals, runs to millions of dollars even for the smallest of plans in the region. These costs are borne by the regulatory authorities, major institutions, landowners, developers, ratepayers, iwi⁶, and communities.

24.9 All policy statements and district plans have a 10-year life from the date they become operative until the time a review must be notified for public submissions. The proposed Gulf Islands District Plan is in its second version since the enactment of the RMA in 1991, but hearings have yet to be held. The first-generation proposed Rodney District Plan is mired in appeals from council decisions and it will be some years before it is operative. The first-generation comprehensive regional plan covering air, land, and water has completed the council decision-making stage, but with many appeals it will be some years before the plan is operative. Major changes to the RPS and district plans to give effect to the Auckland Regional Growth Strategy⁷ are through to the appeal stage, and again will be some years in the resolution.

24.10 The timeline in Table 24.2 shows when the various policy statements and plans are due for review over the next 10 years. The second-generation Auckland Regional Policy Statement is under preparation, as is the Auckland Isthmus District Plan. Most of the other regional and district plans for the region are due for review in the next seven years.

3 Resource Management Act 1991, section 75(3)(c).

4 Local Government Amendment Act 2004, sections 38–40 and Schedule 5.

5 Resource Management Act 1991, section 30.

6 Iwi – tribal grouping.

7 The Auckland Regional Growth Strategy deals with growth boundaries, areas for new urban development, urban redevelopment, business land, and important city-shaping infrastructure. It also deals with the need for and priority of infrastructure investment. Areas for protection such as coastal landscapes and native forested areas are also identified as constraints to urban growth. The 1999 version has a spatial concept, rather than being a spatial plan. Available at www.arc.govt.nz (accessed February 2009).

Table 24.2 Timeline for notification of policy statement and plan reviews, Auckland region

2009	2010	2011	2012	2013	2014	Beyond 2014
Regional Policy Statement	Regional Plan – Sediment Control		District Plan – Manukau	District Plan – Waitakere	Regional Plan – Coastal	District Plan – North Shore 2016
District Plan – Papakura	District Plan – Isthmus				District Plan – Central Area	District Plan – Gulf Islands
Regional Plan – Farm Dairy Discharges	District Plan – Franklin					District Plan – Rodney

24.11 The Commission invited submissions and posed a number of questions relating to resource management and planning. Submissions received are summarised in Volume 3 of this report.⁸ In addition, Hill Young Cooper sought the views of a small number of frequent participants in the resource management and planning system in Auckland, which are reported in the RMS paper.⁹ No one advocated retaining the status quo or suggested that only small changes to the status quo were required. Rather, submitters and informants saw this as an opportunity to fundamentally improve the capacity of Auckland local government to deliver better results through altered local government arrangements and better law.

24.12 Based on its analysis and on the views of submitters and informants, the Commission has crystallised widely held views on the major resource management and planning issues which must be taken into account in proposals to improve local government in Auckland. This chapter records the changes that will be required to improve the delivery of resource management and planning in a manner that will not aggravate existing problems in the region. The following sections identify the principal issues and options for addressing them.

24.13 The issues fall into three main categories:

- complexity in the planning system
- consistency and diversity – the community role
- problems associated with integrated growth management.

Complexity in the planning system

24.14 The RMA is a devolved statute that provides for most resource management policy making and consenting to occur at local government level. In the case of the Auckland

8 Royal Commission on Auckland Governance, *Report, Volume 3: Summary of Submissions*, Auckland, 2009, Chapter 13, “Environment”, pp. 149–159.

9 Hill Young Cooper, “Resource Management System in Auckland”, in Royal Commission on Auckland Governance, *Report, Volume 4: Research Papers*, pp. 261–353.

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region, unnecessary complexity of the system is caused by several factors: the large number of key decision makers who exercise resource management powers, the overlaps in jurisdiction, the sheer number of plans and rules, each with their own style and presentation, and the number of resource consents that are often required to authorise development of land, buildings, businesses, and infrastructure. As a result, the system is difficult and costly for participants, creates barriers to community engagement, and is not justified by the outcomes achieved. Some complexity in the resource management system is the result of the relatively sophisticated Act itself, and cannot be easily addressed by altered governance arrangements. In addition, a fine-grained approach to planning will always be required in order to meet the needs of Auckland's diverse communities and to manage the wide range of natural and physical resources.

24.15 Ministers of the Crown retain certain powers under the RMA, and utility operators (such as the New Zealand Transport Agency, power companies, and telecommunication companies) also have special powers to designate and compulsorily acquire land, and to veto development of designated land (or air space) not owned by the designating authority. The RMS paper identifies 20 utility operators with these special powers in Auckland.

24.16 Auckland has eight local authorities covering a region of 1.4 million people. The RMS paper identified and discussed the Auckland specific policy statements and plans: a regional policy statement; four proposed or operative regional plans; 10 proposed or operative district plans; and hundreds of variations and changes to those policy statements and plans.

24.17 An example of the complexity of the planning system is a major land development in the rural area of Rodney District. Such a proposal would be subject to

- the operative district plan
- the proposed district plan
- variations of the proposed district plan
- the regional policy statement
- the regional air, land and water plan
- the regional sediment control plan.

24.18 One or more resource consents would typically be required under each plan, resulting in a number of resource consents from two consenting authorities – Rodney District Council and the Auckland Regional Council – and they would be subject to the objectives, policies, and rules of at least five plans and policy statements, some of which deal with essentially the same effects, but all with subtle and not so subtle differences in rules, emphasis, and desired environmental outcome.

24.19 Another example of the complexity of the planning system would be a major new energy line through the metropolitan area of Auckland. The utility operator would usually initiate a requirement for a designation. The project would be subject to

- the operative and proposed district plans of all territorial authorities it passed through
- the regional policy statement
- the regional air, land, and water plan
- the regional coastal plan
- the regional sediment control plan.

24.20 A notice of requirement would be needed for the land use designation and multiple resource consents for matters under regional jurisdiction. Designations or consents would be required from all territorial authorities through whose territory the line passed and the Auckland Regional Council. If there were works in the coastal marine area, the Minister of Conservation might also have a consenting role. A similar situation to the Rodney rural land development would prevail, with the added complexity of even more plans and three or more consent authorities having separate decision-making powers, even if heard by a combined panel.

24.21 Another example of the complexity of the planning system would be a developer and a group builder involved in similar types of housing and subdivision operating across most of the territorial authorities of the Auckland region. While the nature of the development is similar from one authority to another, the activity status of subdivisions and houses differs between authorities, as do the standards and rules controlling development. The development contributions required by councils also differ significantly.

24.22 The issue of complexity of the planning system was the most common issue raised in submissions to the Commission on the subjects of planning and regulatory functions.¹⁰

Options for removing complexity

24.23 Complexity in the planning system can be addressed in one or more of the following ways:

- reducing the number of local authorities and thus the number of plans
- requiring the production of fewer district plans whether or not there are fewer local authorities
- requiring common standards to be adopted in district plans throughout the region
- removing unnecessary overlaps in jurisdiction between territorial authorities and the regional council

¹⁰ See *Report, Volume 3: Summary of Submissions*, p. 131.

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- requiring the production of fewer regional plans/policy statements
- providing call-in powers for proposals of regional significance (discussed in a later section)
- providing for a single planning agency for growth areas of regional significance (discussed in a later section).

24.24 Reducing the number of territorial authorities should result in fewer plans simply because there would be fewer councils to make plans. However, as there is a power for an individual council to prepare several district plans (in territorial sections), a reduction in plans cannot be guaranteed. Also, the situation is not much improved for those projects or developers who deal with more than one territorial authority, especially if multiple district plans are prepared.

24.25 Requiring the production of fewer district plans (or even only one plan) could result from one or more of the following:

- fewer territorial authorities than there are today
- the removal of district plan-making powers from the territorial level of local government, this function resting instead with regional government
- combining the territorial and regional levels of local government (the unitary model already existing in several parts of New Zealand)
- a statutory direction that one (or two or three) combined district plans be prepared even if there are several or many territorial authorities.

24.26 The Commission asked the question: “Is it possible and practical to have only one district plan for the Auckland region?” This would require either agreement by all existing territorial authorities to use the existing powers of the RMA to prepare a combined plan (perhaps supported by a statutory direction that there be only one district plan), or if there were one resource management authority for the region, a statutory direction that it prepare only one district plan. The Commission is satisfied on the basis of the advice it has received that the answer to this question is “yes”, although it has little confidence in the practical ability of the existing territorial authorities to prepare a single district plan, because of timing and governance issues. Should this course be adopted, there would inevitably be considerable transitional issues and significant technical and community issues with a “one-size-fits-all plan”. Both of these issues are addressed in later sections of this chapter.

24.27 The Commission’s advisers have analysed the district plans for the Auckland region and identified many standard types of zones used by most territorial authorities, even if they go by different names, such as

- different types of residential zones
- mixed-use zones
- different types of business and employment zones

- different types of open-space zones
- different types of landscape and natural-quality zones
- different types of rural zones.

24.28 Within these zones, standards address a similar range of potential effects and have similar ways of measuring results but are not always the same in areas such as

- activities provided for
- status of activities
- building height
- density controls
- coverage controls
- permeable area controls
- yards
- outlook and outdoor areas
- access to daylight
- parking provision and layout
- landscaping
- access widths
- minimum site size
- floor area ratios.

24.29 Specialised but similar standards apply in specific zones such as a main shopping street with respect to matters such as verandahs, building form, urban design, orientation of buildings, and signs.

24.30 As an alternative to a single district plan, a high degree of standardisation in all district plans would remove some of the complexity of the planning system. This option would involve creating a standard palette of zones and zone standards for the entire region, to be applied to multiple district plans of separate territorial authorities. A regional standard set of objectives, policies, methods, and rules for zones should be able to cover the vast majority of land within the region, although the actual zoning pattern would vary according to the circumstances of each area.

24.31 In addition to a palette of zones and zone standards, a single consistent set of environmental standards would need to be developed for the entire region, recognising differing environments such as coastal, forested, rural, suburban, or urban as

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appropriate. The potential for the same activity rules and standards across the region includes

- vegetation clearance
- earthworks
- indigenous forest protection
- tree removal
- network utilities
- parking and access standards
- contaminated sites
- hazardous facilities and sites
- natural hazards
- protection of sites of outstanding natural value
- esplanade reserves and strips
- volcanic cone protection
- wāhi tapu¹¹ protection
- other heritage protection (for example scheduled buildings, objects, and sites)
- definitions
- RMA procedural information
- temporary activities
- construction activities
- performance standards that apply to all activities such as noise standards, artificial lighting, vibration
- methods of measuring compliance (for example building height in relation to boundary, height of building, net site area, yard requirements)
- management of typical zone interfaces (for example business to residential, open space to any other zone).

24.32 Standardisation of a regional palette of zones and standards, and standardising rules for activities in all zones and identified environments across a district, could be approached in a number of ways including

- the framework being set through the regional policy statement

¹¹ Wāhi tapu – sacred place, location with spiritual meaning.

- through a new mechanism similar to a national environmental standard termed a “regional resource management standard”
- through a host of non-statutory collaborative methods, although this is prone to weakening the objective of standardisation
- through the preparation of one district plan.

24.33 Apart from these areas of potential regional standardisation, there are several areas that would still require a “local” response. These include

- sites where a design-led response has resulted in a “spot zone” with a specific set of standards and rules that are in effect a “super resource consent”
- sites with sufficient uniqueness that a special zone or overlay of controls is required (to allow or constrain usual development, for example Glenbrook Steel Mill, Weiti Forest Park, Eden Park)
- centres where there is a location-specific set of standards to achieve specific design outcomes (for example town centres with developed urban design and heritage protection outcomes)
- the extent and location of zones
- heritage and/or urban design guidelines and standards that reflect the specifics of an area (for example Devonport, Ponsonby, Remuera garden suburbs).

24.34 Most of the district plans in the region would be more or less conducive to the standardisation approach set out above. The exceptions to this are the Waitakere District Plan, which has a multi-layered approach to zones, and the District Plan – Central Area Section of Auckland City, which deals with a large and very complex high-rise environment. There is considerable merit in the Waitakere approach to a two-layered zoning pattern – one that reflects the human environment and one that represents the natural environment. This is one of the options that could be considered for application on a region-wide basis.

24.35 The Commission has reached the view that the production of fewer plans and policy statements is a better way to reduce complexity than standardisation of planning approaches within existing plans. In a later section we discuss governance options that would help achieve this outcome.

24.36 There are areas of jurisdictional overlap between territorial authorities and the regional council in several areas including

- earthworks control
- discharge of contaminants to stormwater systems
- management of natural hazards.

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24.37 There are currently four regional plans, the most significant of which – the proposed Auckland Regional Plan: Air, Land and Water – is some years from finalisation, while the other regional plans are operative.

24.38 We have reached the view that there is no practical reason why a single regional plan could not be produced for the Auckland region in due course, one that includes all of the regional objectives, policies, and rules for matters within the jurisdiction of the regional council. This has been achieved in several regional councils in other parts of New Zealand. Indeed, in a coastal region such as Auckland the drawing together of all regional plans into a single, cohesive document governed by an integrated set of objectives and policies would be a desirable outcome. It would integrate the management of resources, as envisaged by the RMA. As an alternative to “regional resource management standards” in each of the region’s district plans, this same regional plan could also be the home for objectives, policies, and rules in any areas of jurisdictional overlap, providing a consistent set of regional rules. For reasons of efficiency, existing RMA powers that delegate the administration of such rules to a lower tier of government could be considered and required.

Barriers to simplifying the planning system

24.39 Moving to one district plan while there is more than one council with plan-making powers is not considered a practical option. This is because of the overall complexities and scale of the Auckland urban environment, and the political complexities of having one plan-making function carried out by several territorial authorities. It also cuts across a principle of local governance that policy makers should be accountable for the implementation of that policy.

24.40 It is not considered desirable to combine the regional policy statement with regional plans while there are separate territorial authorities. This is because the RPS should be the integrating policy document for both levels of government, and because regional plans and district plans are generally of equal status. Importantly, the RPS should provide for the integrated management of resources and environment across the region and between the two levels of government, and should resolve jurisdictional overlap issues. Where there are separate territorial authorities, this is best achieved by retaining a separate document that focuses primarily on policy rather than regulatory matters.

Consistency versus diversity in planning

24.41 As previously mentioned, the RMA gives extensive plan and rule-making powers to territorial authorities and regional councils. It provides for wide powers of delegation to committees and, where they exist, to community boards. It provides extensive opportunity for public participation both when plans are made and in relation to publicly notified resource consents.

24.42 Communities often have strong and specific aspirations for their local environments, and equally have strong and specific opposition to or support for particular

developments. Councils often have elected members who combine on a “ticket” to promote specific outcomes in their district or city, or to promote or oppose specific developments. District plans often express local preferences and aspirations.

24.43 Within the Auckland region there are widely differing environments which do not lend themselves to a “one size fits all” approach. The wild west coast is significantly different from the eastern coastline. The high density of Auckland’s central business district has very little in common with the villages of Waiheke Island. At a more strategic level, the approaches of various parts of the region to growth management and environmental protection have differed significantly in emphasis and style.

24.44 Many submitters had views about the merits of consistency of standards across the Auckland region. Many took the view that consistency was necessary only in matters of regional significance, and that there was a need to allow for differences between councils and areas. Differences and inconsistency lead to diversity and are also a result of community engagement in policy development and plan making.

24.45 Where submitters tended to operate across the region, such as developers and Māori, more consistency was favoured.

24.46 One identified problem was lack of consistency within a council between planners, or between various council departments – for example, conflicts between the regional development objectives and the environmental protection objectives of different parts of the same council.

24.47 The RMS paper reported that frequent users of the RMA system were divided on the need for harmonisation or a single district plan, perhaps in part because of their familiarity with the different plans.

24.48 The Commission supports the view that changes in governance and other arrangements for the Auckland region should strengthen and support the diversity of Auckland’s environments and communities, while achieving a high-quality urban and natural environment. We note that the RMA has a significant but limited role in shaping communities and the quality of our living and working environments. The Act has a strong influence on spatial layout, style of development, and quality of the environment over a very long period. Other major influences include

- the location and design of new or upgraded roads
- the scale, location, and design of new or upgraded open space
- public sector protection and enhancement of natural environments and places
- public sector investment in upgrading town centres
- public sector investment in civic and community facilities such as schools, council offices, hospitals, recreation centres, libraries, and museums
- public sector investment in public transport infrastructure such as ferry wharves, rail lines, busways, and new stations

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- private sector investment in land, residential, business, and similar development
- decoration, renovation, building, planting, and land development by individual households and organisations.

24.49 Although the RMA may have a shaping role through the various RMA plans discussed above, its role in achieving the diverse outcomes that diverse communities desire should not be overemphasised.

24.50 The Commission supports the view that the engagement of people, organisations, and communities in shaping the quality of their local environment is a fundamental premise of the RMA. The provisions of the Local Government Act must underpin any change in Auckland’s governance arrangements, including those that impact on the effects of the RMA.

Options for local involvement and recognising diversity under the RMA

24.51 There are many ways to ensure appropriate diversity in the administering of the RMA in Auckland.

24.52 Standardisation of RMA rules need not result in a “cookie cutter” urban and rural landscape or standardised outcomes on the ground. The Commission notes that a variety of land use zones at the district planning level would result in a mosaic of different land use patterns, such as we see today in Auckland. There is no reason why unique circumstances in one part of the region could not result in a specific zone, or the tailoring of particular environments (such as a town centre) while also maintaining a level of standardisation.

24.53 Community and tangata whenua¹² engagement in the production of plans, plan changes, and variations and notified resource consents is guaranteed through the public notification provisions of the RMA. This would continue under the proposed changes to governance arrangements. Major developments are usually publicly notified, so public submission rights ensure community views can be heard and reflected in decision making. Depending on governance arrangements and delegation, people with local knowledge – from local planners to locally elected members – may also have decision-making rights in the consent process. This is another means of keeping the local element in RMA administration.

24.54 Much of Auckland is being developed and redeveloped at higher densities. This is happening in areas that are already settled and this inevitably causes community reaction. It is important that communities be involved in changing plans for their living and working environments. This can be achieved through a variety of methods including

- consultation during the preparation of the proposed Auckland Spatial Plan (see below)
- the statutory rights of submission to plan changes enabling intensification and redevelopment

12 Tangata whenua – local indigenous people, people of the land, Māori people.

- local council representation on committees hearing submissions on changes affecting their area.

Constraints on diversity and local engagement

24.55 “Keeping the local” in the administering of the RMA would be a challenge for a large unitary authority governing all of the Auckland region. The size of the organisation could create barriers for people trying to access officials, advice, and information, and could lessen public involvement with policy development, plan making, and consent processes. To mitigate these risks, it is essential that there be involvement in RMA decision making at the local level, including through delegations to locally elected politicians and locally based staff.

Integrated growth management

24.56 Auckland is New Zealand’s largest region, has its only world-scale city, and will account for more than 60% of New Zealand’s growth over the next 30 years. Not only is Auckland the largest region by a considerable margin, it is projected to become relatively larger. Every five years an additional city with a population the size of Dunedin’s arrives in the Auckland region, fuelled by natural growth and immigration.

24.57 Managing population and economic growth is core business for Auckland governance and must be of world-class standard to ensure that Auckland can protect and enhance the well-being of the region and its communities and maximise the region’s contribution to wider, national objectives.

24.58 Policy for integrated growth management does not fall entirely within the realm of resource management. However its statutory expression is contained within the RPS and district plans. Much of the technical work in developing integrated growth management is carried out by the same sections of council responsible for resource management policy development.

24.59 Auckland has its own methods for developing policy to manage regional growth. These methods while commendable have fallen short when it comes to implementation. One of the problems in implementation is the lack of synchronisation between the regional council, the territorial authorities, and major infrastructure providers, all of which have various planning instruments, growth policies, and investment plans at different stages of development. Some policies and plans have been in conflict or have served to frustrate regionally agreed directions and priorities particularly in relation to transport.

24.60 Auckland local authorities have long recognised failures in aligning the land use side of growth management with the funding and provision of city-shaping infrastructure (motorways, regional arterial roads, the rapid transit network, regional water and wastewater networks, and open space networks), but have lacked the local government structure, and commitment to achieve regional agreement.

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24.61 The Commission frequently heard frustration expressed by submitters about the time taken to make key decisions, the relitigation of regional decisions at the district and neighbourhood level, and the difficulty of obtaining alignment of city-shaping infrastructure decisions.

24.62 The regional growth strategy (“RGS”), which was agreed in the 1990s, was an attempt by the region’s local authorities to address growth management in an integrated way, and arose from strong regional leadership and collaboration rather than from the exercise of statutory powers. The RGS was first given statutory support through an amendment to the Local Government Act, and was then more strongly supported through the Local Government (Auckland) Amendment Act in 2004. Those Auckland amendments required the regional council and territorial authorities to make specific provision for the RGS in the RPS and in district plans.¹³ The statutory process of submission and appeal is still under way with appeals to be heard by the Environment Court.

24.63 As a precursor to the new RPS, the councils of the region have collaborated to develop the Auckland Sustainability Framework,¹⁴ which provides linked and cohesive principles for the region. The framework contains a shared commitment to sustainable development for the Auckland region over the long term, a 100-year vision, eight long-term goals, eight shifts that need to occur in the way the region thinks and does things, some intermediate actions, and longer-term responses, together with some indicators to measure progress. It will provide, along with the RGS, the Auckland Regional Open Space Strategy Technical Report, the Auckland Regional Land Transport Strategy, and the Auckland Region Business Land Strategy, a good start to the work that will need to be done if a spatial plan is to be developed for all Auckland.

24.64 Integrated growth management requires the participation of major agencies and organisations such as Auckland Regional Holdings Ltd, Auckland Regional Transport Authority, New Zealand Transport Authority, Housing New Zealand, the regional and local councils, and Watercare Services Ltd and the territorial authority water businesses. It requires the implementation of provisions of resource management, the Local Government Act 2002 and the Land Transport Management Act, and the involvement of those with responsibilities under those statutes. If Auckland is to achieve world-class integrated growth management, it will be necessary to simplify and align the responsibilities referred to above.

24.65 The RGS is now being reviewed and will provide an important input to the two key statutory documents – the regional policy statement under the RMA and the regional land transport strategy under the Land Transport Management Act, both being prepared in the 2008/09 period.

24.66 Since the RGS was adopted in 1999, amendments to the RMA have strengthened the hierarchy of planning documents so that a district plan is required to give effect to a

13 Local Government (Auckland) Amendment Act 2004, sections 38 and 40.

14 Regional Growth Forum, *Auckland Sustainability Framework: An agenda for the future*, September 2007 (available at www.arc.govt.nz, accessed February 2009).

regional policy statement. This new power has not become fully effective on district plans as the comprehensive review of the Auckland RPS incorporating this power has only just begun. The notification of the reviewed RPS (late 2009) may just precede the notification of one of the most important district plans – the Isthmus Plan of Auckland City (early 2010). This timing may limit the effectiveness of this important new RMA power.

24.67 To further support integrated growth management, the RMA has been amended to provide that one of the purposes of regional councils is “the strategic integration of infrastructure with land use through objectives, policies, and methods.”¹⁵

24.68 The RPS sets out key growth management policies, such as the determination of the metropolitan urban limit (“MUL”), the promotion of a compact urban form with intensified development in “nodes” along transport corridors, and the protection of coastal and rural areas from urban development. District plans give effect to the RPS through zoning and rules. A complex set of actions between many participants is required to achieve the vision.

24.69 A particularly difficult area for the region’s councils has been planning for and managing intensification of the urban areas that are well served by public transport and have been identified for urban renewal in the RGS, the RPS, and district plans. This is a result of

- local resistance to significant change in communities, with proposals for plan changes and variations meeting staunch opposition
- too many poor examples of intensification that have led communities to have no faith that the “plans” will match the end result – this emphasises the need for proper consultation so communities are fully informed about what is proposed, followed by development which at least matches in quality what was proposed
- the difficulties of co-coordinating the necessary public sector investments at the right time and in the right order to enable comprehensive urban renewal (for example, new rail stations, transport services, increased capacity in drainage and other infrastructure, street amenity upgrades)
- private sector development constraints (significantly worse under the prevailing economic conditions), which mean it is difficult to land bank and accumulate sites large enough for higher-quality, higher-density, comprehensive urban renewal
- the difficulty of acquiring the strategic private land (on a willing buyer, willing seller basis) essential for quality urban renewal in identified growth areas.

24.70 To the above list may be added other issues identified in the discussion paper *Building Sustainable Urban Communities*, prepared by the Department of Internal

15 Resource Management Act 1991, section 30(1)(gb), as inserted by the Resource Management Amendment Act 2005.

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Affairs.¹⁶ The paper identifies the following barriers to successfully providing large-scale, sustainable urban development projects:

- limits in capacity and capability at all levels of government and the development industry – skills and expertise in this specialised field are in short supply
- limited coordination of national, regional, and local planning and implementation – complementary planning, budgeting, and action are needed to align the different forms of local government
- ineffective coordination of land use with providers of essential services – a host of providers (for telephone, street lighting, public transport, reserves, recreation, etc), each with their own priorities, must participate and coordinate
- difficulties in funding urban development – projects need significant “start-up capital” before any income is generated off land sales, while raising money and deciding who pays for what can be problematic
- the length and nature of processes for planning and the control of development – the economics of projects become uncertain for developers when opponents can re-challenge decisions, adding delays and costs
- limits to achieving desired social outcomes and public benefits (such as affordable housing) through market mechanisms – some suburbs/social housing areas needing redevelopment may be deemed “poor” and command lower prices, making it hard for investors to profit. (This last issue could be addressed with a “value uplift levy”.¹⁷ Such a levy captures part of the increase in land value created when development projects are approved, zoning changes are made, or public amenities and infrastructure provided. The principle is that some of the uplift in value that results from gaining development rights to change or expand land use should flow back to the community in payments.)

24.71 Local input helps identify areas of special need – for example, household crowding, which is a serious problem in parts of the Auckland region. Housing reform requires coordinated action by central and local government and the private sector. Local communities, iwi, and others with a stake in the land need to be involved. Good-quality planning and integrated management have an important role to play.

24.72 Local government should use transport and the placement of facilities to encourage social participation, reaching those who need the services most (for example, giving fare holidays on public transport in the weekends, putting public transport routes in more deprived communities, siting of parks and recreational facilities where people do not have the resources to create their own leisure activities).

¹⁶ Sustainable Urban Development Unit, *Building Sustainable Urban Communities*, New Zealand Department of Internal Affairs, 1 September 2008 (available at www.dia.govt.nz, accessed February 2009).

¹⁷ *Ibid.*, p. 22.

24.73 An integrated approach to planning and development also requires a full assessment of the needs of sections of the community such as children, young people, and the elderly. The activities of local government in managing the urban and suburban landscape can have a profound affect on the lives of children and their carers, and of young people. Those with fewer resources at home rely greatly on recreational facilities provided by local government. The Commission was advised that the quality of playgrounds in a neighbourhood gives an accurate picture of whether it is rich or poor. That must change. Poor neighbourhoods need quality facilities even more than wealthy neighbourhoods. Manukau City Council has recognised this in its policy of not charging admission to council swimming pools. All planning documents must take into account these socio-economic factors and ensure that the needs of children, youth, and the elderly are properly addressed.

24.74 The current regime for developing policy that integrates growth management involves many parties, suffers in the implementation, and is not adequate for the challenges of Auckland. Less than optimum management of integrated growth will continue to produce less than optimum results for Auckland: an over-reliance on greenfield land supply because of the slowness and complexity of urban intensification, a stifling of desirable economic development, key infrastructure delayed or not put in place at all, housing affordability issues, and the compromise of highly valued resources and heritage values by inappropriate use and development. Integrated growth management needs to give the highest priority to urban development and redevelopment, and to investment in public infrastructure and amenities. A world-class city-region requires world-class integrated growth management.

Options for improving integrated growth management

24.75 The Commission has concluded that the solution to the problems identified above is to create a unitary authority for the whole of Auckland as described earlier in this report. What follows are the steps that the Commission believes must be taken by the new Auckland Council to remedy the defects identified.

- The development of an agreed vision for Auckland, which will direct development and infrastructure investment, and bring into alignment the plans and spending programmes of key decision makers. The Sustainability Framework, New Zealand Transport Strategy, Auckland Regional Economic Development Strategy, and the work already done on the “One Plan” are examples of a considerable body of work that, along with other information, could form the basis of this vision. Work on the One Plan should continue.
- The production of a spatial plan for the region with a 30–50-year time frame (to be updated every five years and fundamentally reviewed every 15 years). Ultimately, this plan should analyse population, households, employment, major social infrastructure, open space networks, city-shaping infrastructure of roads, rapid transit, transport services, active transport networks including pedestrians and cyclists, water, wastewater, and stormwater networks, and major energy lines. It should identify the green and ecological network of the region, and

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areas that should be protected from all development and their natural values enhanced. It should identify growth areas for the region to accommodate urban population, and household and economic development, specifying timing, priority, methods, and agencies involved. The plan would address sustainability, outstanding urban design, a more efficient energy future, climate-resilient development, and the creation of cohesive communities. The work under way on the new RPS, the regional land transport strategy, the Auckland Transport Plan, the Auckland Regional Economic Development Strategy, and the One Plan is a bank of research that could inform this plan. All this work should continue during transition to Auckland's new governance structure, to enable early preparation and implementation of the spatial plan.

- The Commission encourages the Auckland Regional Council and the existing territorial authorities to work cooperatively over the period between the adoption of the recommendations of the Commission's report and the election of the proposed Auckland Council, to develop a vision for Auckland which can be incorporated into the spatial plan.
- The preparation of the plan will require the use of tools such as geographic information systems, linked to up-to-date information about the progress of development (residential as well as employment). This information can then be fed into the funding plans for key infrastructure (public transport, water, wastewater, stormwater, community facilities). This will enable progress across the region to be monitored and adjustments to the spatial plan to be made where needed. The spatial plan must be accessible to all agencies working in the region and to the public.
- The identification of the MUL and intensification nodes. One of the key tools to secure a sustainable future for Auckland is to identify appropriate boundaries for urban expansion. The spatial plan will identify locations within existing urban areas where "densification"¹⁸ is appropriate in order to make public transport viable. Increasing sprawl would have an undermining effect on the provision of public transport and could make improvement unaffordable. Dense cities use less energy per person than the more dispersed model. For these reasons, the MUL is a key policy and the consequent control of land use will require significant enforcement efforts.
- As mentioned below, the definition of urban limits was a common theme in the cities the Commission visited. So too was the need for densification in order to make better use of infrastructure and support public transport. The Commission is aware that within New Zealand there is quite strong opposition to both these policies. Urban dwellers resist densification and some farmers regard their properties as a superannuation investment with a view to future urban

18 Densification refers to the process where population increase in an urban area is accommodated through increasing the density of housing, either through high-rise or low-rise buildings. This can be done in a sustainable, environmental way, without compromising other urban space.

development. Some argue that urban limits push housing prices upwards. The Commission is satisfied on the basis of what it has learned from other cities, and from what it sees as a constant theme in cities worldwide, that these attitudes must change. The Commission does not regard the policies described above as an optional extra but as essential to the development of a successful city in the 21st century.

- Enforcement and retention of the MUL is a constant battle because of the powerful economic incentives to develop land beyond the MUL. At the same time, it is important to ensure that excessive rigidity does not win out over flexibility and actual outcomes. Some have criticised the Auckland Regional Council, for example, as being too removed from market conditions and needs, and lacking sufficient vision to adopt progressive solutions. The Commission observed during its visits overseas that there was significant weight given to protecting the urban limits in many overseas cities. In some places the protection was by an Act of Parliament that set the line unless amended. The Commission does not propose such a stringent line here, believing that the MUL can be protected under the ordinary RMA processes. However the Commission believes that resource consent applications affecting the MUL should be kept under direct control of the proposed Auckland Council, and a better system developed for defining urban limits which is possibly more inclusive and long-sighted.
- The production of an accompanying infrastructure investment plan to support and reinforce the spatial plan identifying projects, timing, priority and funding where appropriate.
- The production of the RPS, regional transport plan, and regional economic development plan should follow the adoption of the spatial plan and infrastructure investment plan, and at the time of notification the former documents should be consistent with the spatial plan and infrastructure plan.
- An Urban Development Agency could be created with responsibility for ensuring that urban renewal areas are developed subject to integrated planning, and greenfield areas are released so that the markets for land development, employment land and housing can operate in a cost-efficient manner. The Urban Development Agency would give effect to the spatial plan and infrastructure plan, and its activities must be consistent with the RPS, regional transport plan, and regional economic development plan. This agency could also have a role in ensuring that the more complex urban renewal in planned nodes and corridors is achieved. Compulsory acquisition powers for the Urban Development Agency should be considered under the Public Works Act.
- A separate City Centre Waterfront Development Agency (see Chapter 17).

24.76 Much greater capacity to analyse and plan the city region will be needed, particularly in gaining a more sophisticated understanding of complex urban systems, and

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developing tools to evaluate and prioritise major investment choices across all types of assets.

The Commission's proposals

24.77 The Commission has explored several options for changed governance in the Auckland region. Our preferred structure is described in Chapter 14, “The Auckland Council: Key Features”. One of the factors that led us to this choice relates to the delivery of services under the RMA and the ability to provide world-class integrated growth management. This section describes the benefits of that choice from a resource management perspective.

24.78 As outlined previously, the Commission favours the creation of a unitary authority for Auckland (Auckland Council) with six subsidiary local councils.

24.79 To improve resource management and integrated planning, the first tasks for the Auckland Council are listed below:

- There should be concurrent preparation of a spatial plan¹⁹ and infrastructure investment plan to guide growth management, planning at regional and district level, and public works investment in the region.²⁰
- This would be followed closely by the preparation of the Auckland Regional Policy Statement and one district plan for the region. Existing plans would remain in force until replaced.
- The district plan could be staged in territorial sections if justified but must be a consistent and cohesive whole on completion. The Commission believes that a staged approach would be an inferior approach. The preparation of one district plan as soon as possible after the preparation of the spatial plan would require a large commitment in resources and effort, but would deliver the benefits and results earlier, and would avoid the inertia that could come from the continuing implementation of existing plans.
- In due course, there should also be one regional plan covering the objectives, policies, and rules of all existing and proposed regional plans.

24.80 The Commission wishes to stress to the authors of future plans, particularly the district plan, the importance of having simplicity of language and controls as a central objective. This is of particular importance in residential zones. The Commission is satisfied, on the basis of the evidence it has heard, that residential zones have become unnecessarily complex often requiring expensive resource consent applications for relatively minor building additions or alterations.

19 See paragraph 24.75.

20 The regional transport plan should be prepared at the same time as the regional policy statement.

24.81 The preparation of these plans would be undertaken by the Auckland Council, after full consultation with the local councils. Local council input into the district plan in particular is essential to ensure that local aspirations and place-shaping are provided for. One of the functions of the urban local councils will be the processing of resource consents, subject to a power of the Auckland Council to call in applications of regional significance. Where consents are processed at local council level, the Auckland Council should ensure that any necessary regional consent requirements are delegated to the local council. As indicated elsewhere in this report, greater supervision by the Auckland Council will be necessary in relation to planning functions in the rural areas, given the importance of the MUL and the need to ensure that Auckland-wide policies on development and growth are adhered to. Because of the highly specialised nature of some RMA functions (such as water allocation or air quality standards), some RMA consenting will still be best handled by the Auckland Council.

24.82 The Commission has considered the possible benefit of creating a separate council-controlled organisation (“CCO”) with a specialist pool of planners, transport planners, environmental analysts, urban designers, and other supporting experts to deliver some parts of planning services. The Commission is aware of CCOs in other parts of New Zealand that successfully deliver such services. The Commission discussed this possibility with its advisers. It was told that councils have a very real problem with the recruitment and retention of highly skilled professional staff. The new Auckland Council will need to examine why this is so and ensure that its structures and culture are such that professionals find the council an exciting and fulfilling place to work. The culture of the council must focus on delivery of quality service to the citizens of Auckland. The Commission suggests that one way to address the recruitment and retention problem is through the creation of a separate business unit for planning within the council organisation. The formation of a CCO is another way. Whichever approach is adopted, the aim must be to give professionals the freedom within which to operate. It is essential too, that local body politicians must recognise and accept that there are conventions involved in the way they work with the councils’ professional staff. The Commission believes that the decision on whether a CCO would be preferable to a separate business unit within the Auckland Council is one for the council to make in due course.

24.83 Experts in this country and overseas have recommended to the Commission that there should be no right of appeal to the Environment Court from regional policy decisions. Rather, a procedure should be adopted in relation to the RPS similar to that adopted for national policy statements,²¹ but with the requirement that there will always be a hearing of submissions by independent commissioners. It is the Commission’s view that policy should be made by politicians, not by the courts. The present system means that regional policy is litigated at length and at great public expense. There are several examples in Auckland where territorial authorities and the Auckland Regional Council have opposed each other in appeals to the Environment Court over policy matters. Such appeals can involve other parties as well, and because of their complexity can delay

21 Resource Management Act, sections 45–55.

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the operation of an RPS for a period of years. Obviously, the Commission's structure recommendations would remove the possibility of disputes between territorial authorities and the regional council, but would not remove the possibility of other parties challenging regional policy.

24.84 The Commission accepts that there is considerable value in having the supervision and experience of the Environment Court, particularly when it comes to the relationship between policy and rules. The Commission is also aware that there are many regional councils that struggle to provide adequate resources in preparing regional policy statements. The Environment Court's experience can be very helpful in such circumstances. However, it is crucial that the RPS of the new Auckland Council should be able to be prepared and become operative with the minimum of delay. It is reasonable to anticipate that the resources available to the council, and the political oversight that will be available, will ensure robust policies whose adoption would be justified after their having been through a submission hearing process before experienced commissioners. It is also relevant that many of the regional policies are already well established. We conclude that in the case of the Auckland Council there should be no right of appeal against decisions relating to the RPS. The Commission recommends that the Resource Management Act should be amended accordingly.

24.85 Some submitters raised the issue of requests for private plan changes. In the Commission's view it will be important, at least until the new district plan is operative, that there be a moratorium on private plan changes. The reason for this is that there can be very significant disruption and cost involved in dealing with private plan changes while the district plan itself is going through the submission and appeal process. This, of course, would not prevent changes being made during this time, but they would be by way of variations to the proposed plan and would be instituted only if the Auckland Council was satisfied as to their appropriateness.

Benefits of the Commission's proposal

A regional approach to spatial planning and resource management

24.86 Having an integrated spatial plan and plans for strategic regional infrastructure prioritised by the Auckland Council (which would generally hold the regional purse strings) means that there would be a singular clarity of direction, with a wide range of methods by which to achieve strategic regional outcomes. This would also do away with the inevitable institutional friction created by separate units and levels of local government (regional and territorial).

24.87 This planning framework would provide for rational and evidence-based decision making in the interests of the entire region, without the difficulties that can arise from spatial decision making based on the region's current, separate territorial authority boundaries. Elected representatives would face a wider range of considerations in their policy-making roles, along with a role and duty to consider the inevitable balancing of a

broad range of environmental, social, cultural, and economic factors. This must lead to better decision making.

24.88 This, in turn, will mean that development of the regional policy statement does not need to be slowed down by the current competing financial and “council patch protection” interests and timing misalignments. Rather, it can focus on the delivery of an outstanding regional policy statement consistent with the spatial and infrastructure plans. There will be much less delay related to RMA processes, with only one council having plan- and policy-making duties and powers.

A less complex planning system

24.89 The preparation of the regional plan and one district plan by the Auckland Council will reduce complexity and provide (at the point where the regional plan and the district plan provisions come together) greater clarity for those involved in RMA processes (particularly applicants and submitters) where they operate over wide parts of the Auckland region. Even if the district plan is prepared in territorial sections, there will be a greatly enhanced ability to ensure consistency with the regional spatial plan, the regional policy statement, and the regional plan. Lack of consistency, implementation difficulties, and unintended outcomes would be more easily identified and more easily corrected.

24.90 Having only one regional plan and one district plan for Auckland could initially create a large volume of work for the Environment Court, but once settled would significantly reduce the amount of work going to the Court, reduce time frames and potentially result in quicker turnaround times for the Court on other matters.

24.91 Greater consistency in administration and decision making for consents across the region should be achieved through the simplification of plans, standardisation of rules, and cohesive RMA governance and decision-making processes (including standard delegation approaches to local councils and their staff). This could ensure that the RMA is not perceived (as at present) to be the cause of regulatory obstacles to appropriate development and growth.

24.92 Presently, applicants for resource consents face the possibility of having to prepare applications to a territorial authority and to the regional council for matters within the exclusive jurisdiction of each. There are instances, affecting infrastructure providers in particular, where applications need to be made to more than one territorial authority and possibly the regional council as well. In these cases, applicants must prepare two or more applications, and prepare for one (if the hearing is a joint one) or two hearings, and meet the cost of complying with the potentially conflicting conditions of two or more consenting authorities. The ability to create a “major” or “regional” projects approach means that critical infrastructure or growth projects can be handled by a single regional team with the appropriate level of skill and resources to advance them expeditiously. Moreover, the volume of large or complex resource consents processed in the region may actually diminish because of better alignment between regional and district plan documents.

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Lower costs and better service

24.93 The greater scale of the region and better funding (compared with the current situation in some parts of the region) would help reduce consenting time frames and costs as it would allow

- **Better customer service.** A centralised system could offer web-based transactions to be conducted at any time and on any day (for example, accessing district plans, reviewing notified consents and plan changes/notices of requirement, including all associated information such as submissions, reviewing hearing reports, appeals). It might also provide a single-access phone number and portal for general customer emails and calls to a well-resourced call centre. These would replace the multitude of application forms, websites, pamphlets, and different internal processes which currently exist across the region.
- **Establishment of a core group of specialist staff in-house.** Rather than having to engage consultants, the Auckland Council could generate its own expert input into consent processing and the development of regional and district planning documents, thus reducing delays and costs. (Finding experts who do not have a conflict of interest or are sufficiently experienced to appear in the Environment Court is a problem in certain disciplines.) Specialist staff retention would be enhanced by having a core of peers to support and mentor younger team members – at the moment, councils in the region may have one or two experts who are often under attack from applicants (and often submitters)
- **Establishment and retention of a team of experienced planners.** The Auckland Council would be able to provide planning services in relation to “called in”²² major projects and, if necessary, resource consent appeals. Enhancing the level of experience and skill in-house will ensure that there is the opportunity for professional development and will improve the level of experience and reduce shortages at team leader/senior planner level
- **Reduced legal costs.** There is potential to reduce the legal costs associated with defending council decisions on consents and plan changes, and other RMA processes, by having access to a large enough pool of resources either from an in-house legal support team or outside legal advisers
- **Consistency in relation to prosecution procedures.** Centralising processes under a single, well-resourced team and ensuring that appropriate standards are followed for investigations is likely to result in better compliance, better outcomes for the environment and reduce the amount of work going to the courts.

22 “Called in” refers to the powers proposed for the Auckland Council to call in and determine applications that would otherwise be dealt with at local council level.

Improved resource management

24.94 The preparation of the RPS, regional plan, and district plan by the Auckland Council maximises the opportunity for an integrated approach to be taken to the management of natural resources and environmental values, and to integrate land use planning with infrastructure investment across the region, producing better environmental outcomes

24.95 Having one district plan will reduce the likelihood of rules being overlooked and has the potential result of greater compliance and progress in achieving the RMA's environmental outcomes.

24.96 If compliance and monitoring are undertaken by the Auckland Council, the resulting large monitoring team would ensure sufficient focus and momentum to meet RMA requirements. At present, many councils struggle to fund monitoring of district plan effectiveness, being distracted by pressing requirements to amend plans or resource other projects.

24.97 In summary, the Commission is confident that the changes proposed in this chapter should

- improve ease of access to resource management services
- reduce costs to applicants and ratepayers
- improve the consistency and quality of regional and district plans
- facilitate timely decision making and ensure the prompt implementation of projects essential to Auckland's progress
- enable a holistic approach to the development and growth of Auckland
- provide the framework for a more inclusive and sustainable city.

Recommendations

Auckland needs robust, considered and consistent planning to support the region's ongoing growth and development.

- 24A** The Auckland Council should, immediately following its establishment,
- a) prepare a regional spatial plan and infrastructure investment plan to provide a vision for the Auckland region and to guide growth management, regional and district planning, and public works investment in the region
 - b) begin developing one district plan for the Auckland region (with existing plans to remain in force until replaced).
- 24B** Simplicity of language and controls should be a central objective in the preparation of plans.
- 24C** After the commencement date of the Auckland Council, there should be a moratorium on private plan changes, until the new district plan for the whole of Auckland becomes operative.
- 24D** The Resource Management Act 1991 should be amended to remove the right of appeal to the Environment Court from regional policy statement decisions made by the Auckland Council.
- 24E** The Auckland Regional Policy Statement should be subject to a submission process similar to that which applies to national policy statements and those submissions should be heard by independent commissioners.
- 24F** Auckland Council should consider creating an Urban Development Agency, to operate at the direction of the Auckland Council, with compulsory acquisition powers.

Transition

- 24G** The Establishment Board should undertake preparatory work on the development of the Auckland regional spatial plan and consider the new planning and regulatory requirements when designing Auckland Council's organisation and unified service arrangements.

25. Transport

25.1 The perceived deficiencies of governance for roading and public transport in Auckland loomed large in the submissions made to the Commission¹ and in other material supplied to it by a variety of individuals and organisations. As a consequence, the Commission was concerned to ensure that it was fully apprised of the current governance arrangements and the improvements that were needed.

25.2 In addition to considering the many submissions received regarding this issue, the Commission spoke to representatives of both national and regional government agencies, and interviewed people involved in roading and public transport in the cities that it visited in Australia, Canada, the United States, and England.

25.3 The Commission obtained a research paper on transport issues from a highly regarded expert. A copy of that paper may be found in Volume 4 of this report.² The Commission later evaluated a range of options for a new transport authority, and after considering the various advantages and disadvantages, adopted a preferred path, which forms the basis for the Commission's recommendations in this chapter.

25.4 The primary objective of the Commission's recommendations is to bring all elements of transport, including roading, rail, public transport, and planning for pedestrians and cyclists, under the management of one body, which would be a council-controlled organisation owned by the proposed Auckland Council. The key to the success of that body will be central government participation in important parts of its activities (which are detailed later in this chapter). It is envisaged that this will be achieved through a joint management structure. High-level policy will be the responsibility of the Auckland Council through its Infrastructure Committee. It is intended that local roads will be under the control of the local councils, subject to general policy direction of the Auckland Council.

25.5 The Commission is aware of the Government's intention to promote the construction of infrastructure. At the time of writing, the implications of the Government's proposals for the Auckland region have not been detailed and are therefore not taken into account in this chapter.

Submissions on transport

25.6 More than 25% of all submitters mentioned transport issues. (Further details of the submissions received may be found in Chapter 17, "Transport", in Volume 3.) The majority of them considered there were problems with transport governance. The main concerns with governance were lack of integration between transport modes, slow decision making

1 See Royal Commission on Auckland Governance, *Report, Volume 3: Summary of Submissions*, Auckland, 2009, Chapter 17, "Transport".

2 Mein, Barry, "Transport Governance in Auckland: Situation Analysis", in Royal Commission on Auckland Governance, *Report, Volume 4: Research Papers*, Auckland, 2009, pp. 191–260.

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for upgrades to the system, and what was seen as the complicated and chaotic nature of current arrangements. The Auckland Regional Transport Authority (“ARTA”) said in its submission,

The duplication of functions within the system results in silo decision-making, some of which is carried out by organisations who may not be best positioned to understand regional needs, and an inability to deliver major and system-wide initiatives. These issues combine to limit the capability of the region to deliver improved outcomes to transport users and the community and increase transaction costs.³

25.7 A common complaint was that there were too many disparate organisations involved in transport decisions. The Employers and Manufacturers Association gave an example of the parties involved in railway development:

As well as ARTA having the electrification and rolling stock responsibilities it is also responsible for station buildings. But ONTRACK is responsible for the tracks and signalling, and local councils (eg Auckland, Waitakere and Manukau city councils) are responsible for the station surrounds such as ‘park and ride’ facilities.⁴

25.8 The commissioned paper by Barry Mein identified deficiencies of the present system. It noted that a large number of organisations have a statutory responsibility for transport in the Auckland region and that the two areas with the most potential for confusion are strategic planning and funding, where responsibilities are divided between different statutory bodies. The Regional Transport Committee of the Auckland Regional Council (“ARC”) prepares the regional land transport strategy (“RLTS”) but is limited in its ability to refer to individual activities or their prioritisation, and has no statutory authority to require other parties to comply with the strategy. Funding responsibilities are also split for local roads and public transport. There is a general shortage of local funding and complexity in the way it is channelled to transport activities. Mein’s report said it is in the area of public transport infrastructure that arrangements are most complicated. Responsibilities for rail infrastructure are divided between ONTRACK (below the track) and ARTA (above the track). For bus and ferry infrastructure, responsibilities are split between ARTA and the territorial authorities. In addition to the statutory organisations with transport responsibilities in the region, there are a number of other government agencies and regional or project-specific groups or forums that engage in transport matters from time to time. These include a number of ad hoc groups established to coordinate the actions of different statutory bodies. A “wiring diagram” was prepared by one of the submitters to demonstrate the complexity of the present system and is reproduced as Figure 25.1.

25.9 Fragmented decision making was identified by all submitters and by the Commission’s consultant as the primary deficiency of the present system.

3 Submission to the Royal Commission on Auckland Governance from Auckland Regional Transport Authority, p. 2. (All submissions are available at www.royalcommission.govt.nz.)

4 Submission to the Royal Commission on Auckland Governance from Employers and Manufacturers Association (Northern), p. 8.

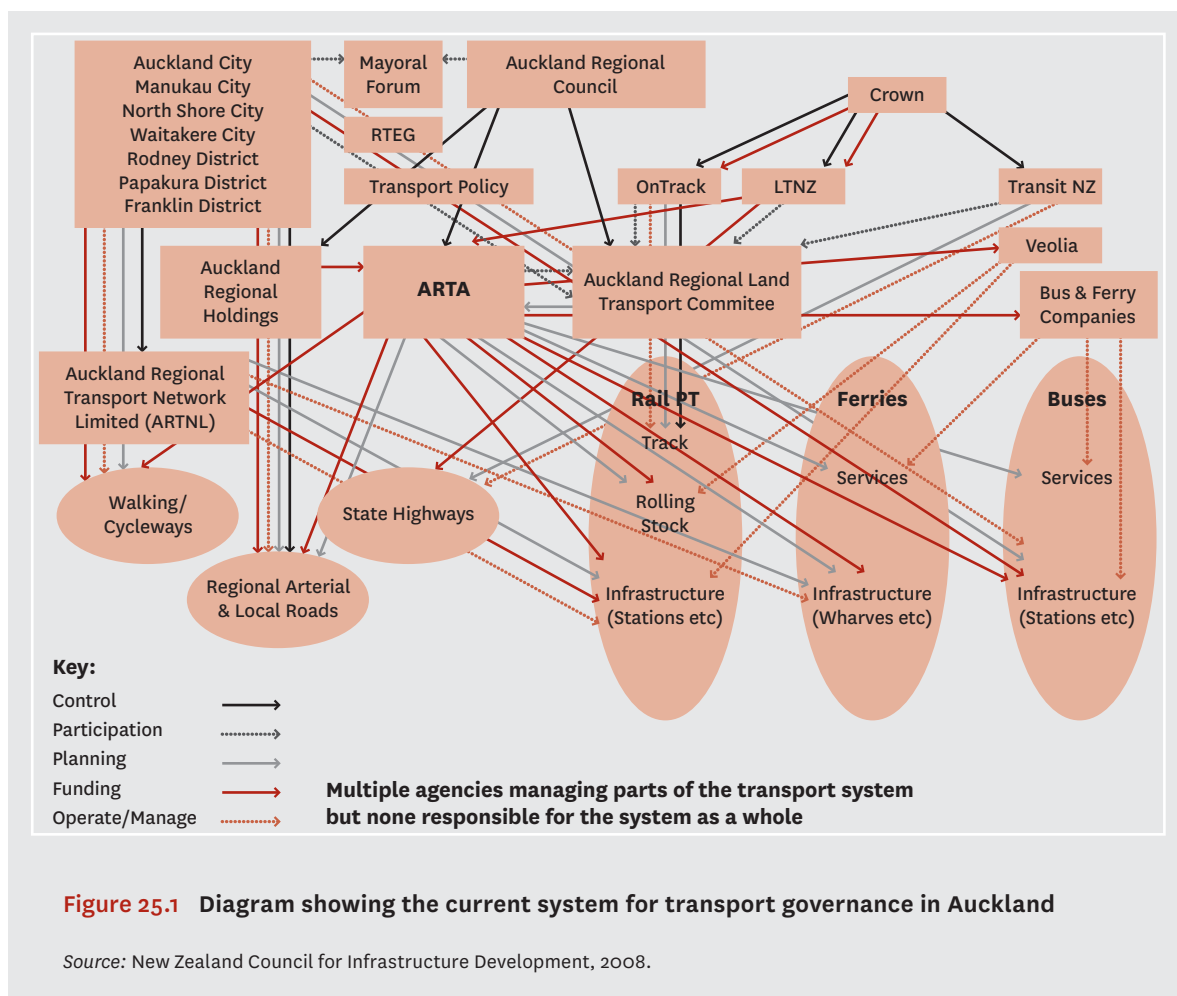


Figure 25.1 Diagram showing the current system for transport governance in Auckland

Source: New Zealand Council for Infrastructure Development, 2008.

25.10 Other deficiencies identified included

- the lack of linkage between roading and land use decisions
- lack of consistency between territorial authorities in the management of arterial roads across the region
- the lack of a clear organisational mandate to take all of the actions necessary to implement a particular transport policy including prioritisation of projects
- the separation of asset management responsibility and associated funding arrangements for different transport modes (road, rail, bus, ferry, cycles), which constrains the ability of decision makers to take an integrated view and can lead to suboptimal outcomes.

Transport case studies

25.11 Several case studies were submitted to the Commission and others are included in Mein's transport paper in Volume 4. One such case study was the central business district ("CBD") to airport link, which was included in submissions by the Committee for Auckland

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and Auckland International Airport Ltd. The importance of this access route was stressed in both submissions. Factors that contributed to its priority as a transport issue were detailed: Auckland International Airport contributes \$19 billion annually to the economy, with 70% of all international travellers arriving or departing through Auckland. A 90% increase in airport traffic to and from the airport precinct is predicted by 2015.⁵ This being the case, it is critical that there be good access to and from the airport to the central city.

25.12 Auckland International Airport's submission expressed frustration at a lack of progress on this important route:

- (a) The provision of a designated clear route between the Airport and the CBD is a priority requirement, and is of city-wide and national significance. However, there is no city-wide policy or guidelines on how this route should be developed, so it has been left to the Airport to advocate for progress. The Airport is now working closely with ACC [Auckland City Council] to advance this project. The Airport has committed significant staffing and financial resources to make relatively slow progress.
- (b) The Airport is very poorly serviced by public transport passenger services. Bus services to and from the Airport are minimal, which is a very unusual outcome for New Zealand's major transport hub. Again, this is a city-wide issue that should be promoted from the "top down", but that is not happening. Although the issue has been identified as a deficiency in regional strategies and plans, it is only recently that any concrete steps have been taken by the various territorial, regional and transportation bodies, to implement improved services.⁶

25.13 The Committee for Auckland reiterated the point that despite numerous studies, reports, presentations, submissions, and agreements, there is still not clarity on who has the ultimate responsibility for this project:

The CBD to Airport link should be a critical part of regional planning. ...
However there is no regional transport body empowered to take a whole network approach – including arterials and motorways – for the benefit of Auckland as a whole. This adversely impacts on the ability to make long-term infrastructural investment planning decisions, across the entire transport system.
Improving the regional focus for transport planning, to drive economic development, is a key issue.⁷

25.14 The Committee for Auckland saw the need for more transport links to the airport from the CBD as being an issue of connectivity, which is vital for successful city-regions. It commented on unclear leadership and strategy on this issue, which has major implications for the Rugby World Cup and Auckland's economic competitiveness, and

5 Submission to the Royal Commission on Auckland Governance from Committee for Auckland, "CBD to Airport Link Case Study".

6 Submission to the Royal Commission on Auckland Governance from Auckland International Airport Ltd, p. 23.

7 Committee for Auckland, "CBD to Airport Link Case Study", p. 7.

recommended “a single empowered regional transport agency with authority to make decisions across the whole transport network that support a competitive city-region”.⁸

25.15 The North Shore Busway, while praised as a concept, was held up as an example of the delays created by fragmentation of decision making. Planning for some form of busway along the northern motorway was part of regional transport plans as early as 20 years ago, in 1989. It featured in each of the RLTS documents from 1993 onwards, but very little progress was possible because of the limits on public transport funding and the asset ownership that existed in the 1990s. In 2001, the Government indicated support for the project, and Transit indicated a willingness to assist in its implementation. Because no one organisation had the responsibility or statutory authority to deliver all the project elements, an ad hoc collaborative approach was developed between Transit, North Shore City, Auckland City, and the ARC. Two further organisations, Land Transport New Zealand and Infrastructure Auckland, were also involved in funding decisions.

25.16 Although the project has been praised as a model of regional collaboration, its success was heavily dependent on the continued participation and goodwill of the individual parties – a situation that was under threat from time to time. The busway finally opened in February 2008, some 15 years after it was first proposed in regional transport plans.

25.17 The problems identified in relation to both the examples set out above will be addressed in the new structure proposed in this chapter. In brief, the proposal is for a Regional Transport Authority that will be a council-controlled organisation and will report to the Infrastructure Committee of the Auckland Council. It is proposed that it will have a partnership relationship with the New Zealand Transport Agency and with ONTRACK. It will have responsibility for regional transport, for strategic planning, and for regional arterial roads. It will have an oversight role in respect of local roads, which will be the day-to-day responsibility of local councils. It will be responsible for preparing Auckland’s transport plan. Full details appear later in this chapter. The responsibilities proposed for the new Regional Transport Authority should enable timely decision making and implementation.

Consultation

25.18 The Commission has consulted with Auckland and central government agencies involved in transport matters.

25.19 Given the high level of dissatisfaction with the present transport arrangements in Auckland, the Commission was particularly interested in the experiences of the cities that it visited as part of its research.

25.20 Perhaps surprisingly, the Commission did not learn much of assistance in either Brisbane or Melbourne. In both places transport arrangements are fragmented and both

8 *ibid.*, p. 9.

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cities are still searching for solutions. The same may be said for Seattle. In Vancouver the importance of the relationship between urban density and public transport provision was emphasised to the Commission. The Commission was told that frequent public transport services required a greater density of population. Vancouver also emphasised the importance of providing for pedestrians and cyclists in a complete transport system. Vancouver has placed a high priority on making its city attractive to pedestrians and cyclists. Traffic lights in the main streets have been phased so that a pedestrian walking at a normal pace does not have to wait for any length of time before the lights change in the pedestrian's favour. Some streets have been designed to give priority to pedestrians and cyclists. In most of the cities we visited, there was a realisation that building more roads is not the appropriate answer to the problems that cities face. Various commentators have likened building more roads as a cure for traffic congestion to loosening one's belt as a cure for obesity. The point being made is that it is essential to look for alternatives rather than assuming that the answer to such problems will always lie in the construction of more roads. In London, congestion charging is used to manage demand on the roading system, and that city now has a policy that no new roads will be built unless they are necessary for the regeneration of areas.

25.21 Transport in the Vancouver metropolitan area is planned by the South Coast British Columbia Transportation Authority known as Translink. It has responsibility to plan, finance, implement, and operate an integrated transportation system for the Vancouver metropolitan area, which is much greater than just Vancouver city. Translink provides public transport services through contractors and through its own wholly owned subsidiaries. It is governed by a board of directors who are selected for their skills and expertise, and who are required to act in the best interest of Translink. They do not represent any other interests or constituencies. Twelve of the 15 board members are appointed by the Mayor's Council on regional transportation, which is made up of the 21 mayors of the municipalities within the Vancouver metropolitan area. The other three board members are appointed by the provincial government. The governance structure enables Translink to expand beyond its current area to include other municipalities in the future, subject to agreement of the province.

25.22 The Mayor's Council appoints an independent commissioner who is responsible for approval of fare increases where these are above inflation, approval of Translink's plans for annual customer satisfaction surveys, a customer complaint process, and any proposed sale of major assets. The commissioner reports annually to the Mayor's Council on the performance of Translink. Some features of these arrangements commend themselves to the Commission.

25.23 The Commission was impressed by what it learned in Vancouver of the role of the police in relation to bus and train stations. Translink collects incident statistics of crime and public disturbance, which are immediately available and enable the police to be deployed to trouble spots. As a consequence there is a high expectation of safety at Translink's stations. In an interview with the Commission, Assistant Police Commissioner Rob Pope indicated that New Zealand Police would be very happy to cooperate with local government in responding to a similar system.

25.24 An important element in Vancouver's apparently very successful public transport system is the adoption of an integrated ticketing system. There is currently no such system in Auckland although one is planned. The Commission has no doubt that the adoption of an integrated ticketing system is a matter of urgency.

25.25 In London, transport is managed by Transport for London, a statutory body created by the Greater London Authority Act 1999. That Act gives the Mayor of London a wide range of executive powers including the general duty to develop and implement policies to promote and encourage safe, integrated, efficient, and economic transport facilities and services to, from, and within London. Transport for London's role is to implement the mayor's transport strategy. It is directed by a management board whose members are chosen for their understanding of transport matters. The board is appointed by the Mayor of London who also chairs it.

25.26 There has been significant investment in transit over the past 10 years in London. Examples are the Jubilee Line, the Heathrow Express, and the Dockland Light Rail, as well as general improvement to underground and bus systems, together with congestion charging. Efforts are being made to make city streets more attractive to pedestrians and cyclists.

25.27 In Toronto, recent governance reforms have led to the formation of the Greater Toronto Transportation Authority known as Metrolinx. This organisation was created by the Government of Ontario in 2006 and is responsible for transportation planning and public transport in the greater Toronto area and Hamilton, Ontario. Metrolinx is governed by a board made up of appointees from provincial, regional, and city government in the Greater Toronto area. There has been some criticism of this arrangement as the local constituencies of board members constrain their ability to make effective decisions in the interests of the wider metropolitan area. However, in November 2008, the Metrolinx board unanimously approved the regional transportation plan and is now about to start a \$50–80 billion undertaking that will result in continuous transit construction for the next 25 years.

25.28 After his review of international approaches to transport governance in metropolitan regions, the Commission's consultant reached a number of conclusions, two of which are of particular relevance to the Commission:

- **Governance structures appear to be more successful where decision makers are obliged to represent the interests of the metropolitan area as a whole. For Auckland this suggests that political accountability should be at the regional level, rather than to a federation of local councils.**
- **The more successful overseas models have the mandate to both develop and implement strategic plans. For Auckland this implies a stronger alignment between the regional land transport strategy and a broader range of regional**

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responsibilities including public transport, major roads and demand management.⁹

The Commission's proposals

25.29 The Commission's proposals are dependent upon the following assumptions:

- The New Zealand Transport Agency ("NZTA") will continue to perform its statutory functions under the Land Transport Management Act 2003 ("LTMA"; as amended in 2008). The NZTA will therefore have overall responsibility for the planning, development, and management of the State highway network (subject to the joint management arrangements proposed in this chapter); and for the distribution of funding for land transport activities from the National Land Transport Fund.
- Funding for transport activities will continue to be mainly sourced from road users via the NZTA, and from rates collected by the elected regional body. In future, direct user charges (including tolls and congestion pricing) are also expected to provide revenue for transport activities.
- While ONTRACK will continue to be responsible for the development and maintenance of the national rail network, funding for rail infrastructure and services will become part of the responsibilities of the NZTA.

Overview

25.30 The proposal in this chapter is for a new Regional Transport Authority ("RTA") for Auckland, which would replace ARTA, and provide a wider range of regional transport functions. It will be a council-controlled organisation owned by the Auckland Council. The RTA will be responsible for the preparation of the regional transport plan that will be required to give effect to an overarching regional spatial strategy prepared by the Auckland Council. (For further details on this strategy, see Chapter 24, "Planning for Auckland".)

25.31 The RTA will also be responsible for implementing the key elements of the regional transport plan, including the planning, development, and management of arterial roads and all public transport infrastructure, service planning, and procurement. It will have a joint role with the NZTA in the planning and management of State highways and arterial roads in the region.

25.32 The RTA will also be responsible for approving funding for local transport activities undertaken by the local councils, and ensuring that these activities are consistent with the regional transport plan.

⁹ Mein, "Transport Governance in Auckland: Situation Analysis", in Royal Commission on Auckland Governance, *Report, Volume 4: Research Papers*, p. 199.

25.33 The Auckland Council will appoint the RTA Board, and monitor the RTA's performance. It will be responsible for preparing a high-level spatial strategy for the region and a regional infrastructure strategy, setting out regional outcomes and objectives and identifying the level of public funding that will be committed towards achieving those objectives. Within this context, the Auckland Council will be responsible for approving the regional transport plan prepared by the RTA (and the funding requirements associated with that plan).

25.34 A similar approach is now taken by central government, with the preparation of a (non-statutory) New Zealand Transport Strategy, and a statutory Government Policy Statement ("GPS"), to which the NZTA and other Crown agencies are obliged to give effect.

25.35 The Auckland Council will fund the RTA's activities through rates and other revenues (for example, investment incomes).

25.36 It will be apparent from the above that the RTA has major responsibilities and will play a very important role in Auckland's future. It will be essential, therefore, that the new RTA has strong, efficient, and visionary leadership at both the board and management level.

25.37 The following sections provide further details on the RTA's functions.

Strategic planning

25.38 The RTA will have the responsibility for preparing a regional transport plan that will set out the requirements for the management and development of the regional land transport system for the next 10 years, and the associated expenditure and funding requirements. In preparing the plan, the RTA will be required to consult with the bodies referred to in section 78 of the LTMA.¹⁰

25.39 The New Zealand Transport Strategy, which forms the basis for the Government Policy Statement on Land Transport Funding, has seven key components:

- integrated planning
- making best use of existing networks and infrastructure
- investing in critical infrastructure and transport sector workforce
- increasing the availability and use of public transport, cycling, walking, and other shared and active modes
- considering options for charging that will provide general revenue for investment in transport infrastructure and services
- using new technologies and fuel

¹⁰ These bodies include adjoining regional councils and territorial authorities, Accident Compensation Corporation, Ministry of Health, New Zealand Historic Places Trust, New Zealand Railways Corporation, district health boards in the region, Māori, and the public in the region.

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- maintaining and improving international links.¹¹

The RTA has a role to play in relation to each of these components.

25.40 The regional transport plan would be required to give effect to the regional spatial strategy prepared by the Auckland Council, and be consistent with national statutory and policy requirements, including the LTMA and the GPS. In future, the GPS may require some Auckland-specific policies to ensure the Crown's interests in the operation of the State highway and rail networks within the region under the proposals in this chapter are adequately protected.

25.41 The plan would be subject to the approval of the Auckland Council to ensure that

- the plan meets the requirements of the regional spatial strategy, and
- the regional funding required to implement the plan will be made available.

25.42 Currently, section 13(2) of the LTMA requires ARTA to prepare an Auckland regional land transport programme every three financial years and to approve that programme by a date set by the NZTA. Schedule 7 of the Act contains special provisions relating to Auckland. Clause 11 of the Schedule requires the ARC to establish a regional transport committee for the Auckland region and sets out the membership of that committee and the interests that must be represented. Schedule 7 requires the ARC to ensure that the Auckland regional transport committee prepares every six financial years an RLTS for the Auckland region that covers a period for at least 30 financial years. The ARC is required, after considering it, to approve that strategy. The Schedule sets out matters to be taken into account in the preparation of the strategy, the contents of the strategy, and the consultation requirements.

25.43 The establishment of the RTA with responsibility for the regional transport plan would remove the need for a separate regional transport committee and RLTS. Many of the elements of the RLTS can be incorporated into the regional spatial strategy, and matters of detail, including activities and their prioritisation, can be included in the plan. The regional land transport programme required by section 13 of the Act can also be included in the plan. This will require some amendment to the LTMA, but that Act already contains separate provisions for the Auckland RLTS and regional land transport programme. To ensure national consistency, the statutory provisions relating to the plan should be aligned as closely as possible with those of the RLTS and regional land transport programme for other regions.

25.44 The RTA would also be responsible for preparing Auckland's regional public transport plan as required under the Public Transport Management Act 2008. This carries forward the responsibility currently held by ARTA.

¹¹ Ministry of Transport, *Government Policy Statement on Land Transport Funding 2009/10–2018/19*, Ministry of Transport, Wellington, 2008, p. 9.

25.45 In addition to these two statutory plans, the RTA would be responsible for preparing corporate plans including an annual statement of intent (“SOI”) for approval by the Auckland Council.

25.46 Table 25.1 at the end of this chapter summarises the proposed changes to strategic and statutory planning arrangements under this proposal.

Roading

25.47 For the RTA to have effective control over the region’s transport system, it needs to be in a position to influence the development, management, and operation of the major parts of the road network, where the operational needs tend to be focused on efficient movement of people and goods rather than access to private property. The efficiency and effectiveness of these roads can be enhanced by a regionally consistent approach.

Regional arterials

25.48 The RTA will become the road controlling authority for the major arterial roads in the region. ARTA has prepared a draft Regional Arterial Road Plan, which defines regional arterial roads (as roads that link districts or urban areas within the region and connect regionally significant facilities) and identifies the road network within that category. These roads all perform a regional transport function, and this would be the logical starting point for defining regional roads to be controlled by the RTA.

25.49 As the road controlling authority, the RTA will take over governance and financial responsibility for the planning, development, maintenance, and operational management of these roads from the existing territorial authorities.

State highways and regional arterials

25.50 The Commission is aware that section 95(1)(c) of the LTMA provides that one of the functions of the NZTA is to manage the State highway system. It follows that it would be inappropriate for the agency to pass responsibility for the planning, development, and management of State highways to a regional transport authority.

25.51 However, there are significant risks in establishing a new RTA with control over regional arterials if State highways remain under separate management, as this would create additional operational fragmentation between the various levels of the road hierarchy, by introducing three tiers of control (State highways, regional arterials, and local roads), instead of two.

25.52 For this reason, a joint management approach for State highways and regional arterials in Auckland is proposed. This aims to protect the operational integrity of the national highway network, while providing for the maximum possible level of operational integration between State highways and regional arterial roads.

25.53 The joint management model includes the following elements:

- The NZTA retains ultimate control over the development, management, and funding of State highways.

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- Priorities for expenditure are subject to the regional strategic planning process. This is similar to the situation that has recently been established under the LTMA where ARTA is responsible for prioritising State highway projects as part of its regional land transport programme.
- A joint management structure is established between the NZTA and the RTA to oversee the operational management of the State highway and arterial road system in the Auckland region, including maintenance, minor improvement works, traffic operations and management (including traffic signal coordination, ramp signalling, access management, information, signage, and intelligent transport system development), and travel demand management (potentially including toll and congestion pricing mechanisms). The “Alliance Principles” (which provide for joint responsibility) should apply.¹²
- The joint management structure will need to ensure that a close relationship between land use activities and highway function is maintained. In particular, this will require that its activities are consistent with regional resource management decisions and the control of land use activities that impact on the regional network.
- The joint management structure will also be responsible for recommending development proposals for the State highway and regional arterial network for consideration as part of the transport planning process.
- The joint management structure would involve a formal agreement between the parties, including the scope of activities, the governance arrangements between the parties (possibly including a joint management board), funding arrangements, and staff management and dispute resolution procedures.
- Staff for each of the joint activities would be brought together under the joint management structure. This would be similar to the current arrangements for the Traffic Management Unit, which is responsible for the coordinated management of the region’s traffic signals, where traffic operations staff who were previously employed by territorial authorities were transferred to the NZTA. A decision on whether the staff should be managed from within the NZTA or the RTA should be made by agreement between the parties, and should rely on the ability to utilise wider organisational skills and synergies with other functions.

25.54 One of the themes of the Commission’s report is the need for strengthened relationships between central government and the Auckland Council. This is particularly so in the area of transport. To support the joint management structure referred to above, it is the Commission’s view that it is also necessary for there to be regular meetings between the Minister of Transport (and other relevant ministers), the Auckland Council’s Infrastructure Committee, and the mayor. The Minister for Transport, who

12 The “Alliance Principles” are described in the following Transit web pages: www.transit.govt.nz/projects/mhc; www.transit.govt.nz/content/files/technical/ManualSection190_FileName.pdf

would be a member of the proposed Cabinet Committee for Auckland, would take his recommendations to that committee. The Commission suggests that such meetings should take place on at least a quarterly basis. In this way, confidence in the joint management relationship can be developed and enhanced.

25.55 The details of these arrangements will need to be further explored with the Government.

Local roads

25.56 Local councils will have road controlling authority responsibilities for roads at the lower levels of the hierarchy, where the through-movement or journeying function is less important, and the functional priority of the road is more strongly focused on property access and land service. For these local roads, issues of local amenity are a more important consideration, and local council management should enable better integration with other relevant local government functions (including land use planning, urban design, open space provision, utilities) and more responsiveness to local needs.

25.57 The RTA will still have a role in relation to these local roads including funding approvals and ensuring that local management is consistent with the regional plan, where necessary. There may also be merit in the Auckland Council establishing some regional service provision for local roads, to take advantage of possible economies of scale and staff expertise.

25.58 There will need to be a process established to determine the demarcation between regional and local roads, taking into account the functional characteristics of the road, and the size and functions of the local councils. While the “starting point” suggested in this chapter is for regional arterials as defined by ARTA (see paragraph 25.48) to transfer to the RTA, there is likely to be merit in also transferring some further existing district arterials to the RTA, where those roads have significant people and freight-moving functions (as distinct from local access roads). This process should be sufficiently flexible for the allocation of roads between the RTA and local roads to vary over time, according to changing circumstances.

25.59 Wherever the boundary is drawn, particular attention will need to be given to ensuring a consistent interface between RTA and local roads from the users’ perspective.

Public transport

25.60 The RTA would continue to perform ARTA’s existing public transport functions, including the preparation of a regional public transport plan (see paragraph 25.44) and the procurement of public transport services pursuant to that plan. The RTA will also be responsible for the development of associated public transport infrastructure, including ARTA’s current responsibilities for development of the urban passenger rail network and ferry terminals, as well as supporting projects such as the development of integrated ticketing, real-time information such as electronic display at bus and train stops of arrival/ departure times, and so on.

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25.61 In addition, the RTA will take over responsibility for all public transport infrastructure currently provided by territorial authorities, including bus priority facilities on arterial roads, bus stations, park-and-ride facilities, ferry terminals, and rail stations not already controlled by ARTA, bus stops and shelters, signage, and associated street furniture. Although the day-to-day maintenance of some of these facilities may be delegated to local councils, the RTA should retain overall control of standards, design, and development priorities, to ensure that the system is operated in a coordinated manner that is understandable to users.

25.62 The Commission emphasises the importance placed on public transport to enable cities to move to a sustainable future and to support densification. Perhaps more importantly, public transport is essential for deprived parts of the city where owning and fuelling a car are beyond the means of many families and individuals and can cause hardship for others. The Commission also considers that priority should be given to the development of an integrated ticketing system.

Rail

25.63 The Commission emphasises the importance of rail as one of the elements of public transport and again notes that the integrated ticketing system should apply to all modes of public transport.

25.64 There are parallels between rail infrastructure and State highways in the Auckland region. Both are critical elements of the regional transport network, and there would be benefits to the region from having their development and management more closely integrated with the rest of the regional transport system. Both are also part of a wider national network, with operational objectives and protocols that extend beyond the region. ONTRACK's view is that the operational integrity of the rail network is such that it is not appropriate for it to be subdivided into separate regional entities.

25.65 The proposal in this chapter is for a similar arrangement to exist for rail as that proposed for State highways, that is, the establishment of a joint management structure between the RTA and ONTRACK. This would enable a joint approach to issues such as system development, train control, and maintenance. It would also ensure that RTA and ONTRACK were required to consider the needs of both passenger and freight users on the rail network.

25.66 It should be noted that the background assumptions in paragraph 25.29 include the assumption that funding for rail infrastructure will transfer to the NZTA, rather than remaining as a separate Government funding stream.

25.67 It is appropriate in this context to refer to the importance of the road and rail links to the port. The successful operation of the port depends upon rapid and convenient access to and from the port. This is particularly the case with the movement of cargo away from the port to the port company's site at Wiri where it is broken down for onward goods movement. An integrated approach to these transport needs is another matter of high priority.

25.68 As with State highways, the details of these arrangements will need to be further explored with the Crown.

Ferries

25.69 The Auckland ferry system is an important part of Auckland’s public transport. The Commission believes that there is great potential for further development in the future. Cities such as Sydney demonstrate the great contribution that ferries can make to public transport and the part they can play in recreation and tourism. The popularity of the existing ferry system may be gauged from the fact that the services to Devonport and Waiheke Island do not need to be subsidised. Proportionally, and taking into account the number of passengers carried, the subsidy for ferries generally is very much less than that for bus and rail. ARTA’s Passenger Transport Network Plan prepared in 2006, proposes (at page 6) the following improvements to the passenger ferry system:

- upgraded terminals at Bayswater, Beach Haven, and Half Moon Bay
- new ferry terminals at Browns Bay, Takapuna, Te Atatu, Hobsonville, and Island Bay, and the introduction of services
- service improvements as new and upgraded terminals are completed.

Very few of the proposed improvements have yet been undertaken. Given Auckland’s extensive marine frontage, ferries could be expected to play a much greater role in public transport in the future, particularly if there was an intensification of population in the areas served.

Sustainable transport including walking and cycling

25.70 The need for the transport system to make provision for pedestrians and cyclists is increasingly becoming accepted as part of the movement towards sustainable cities.

25.71 The RTA will be responsible for preparing and implementing a sustainable transport plan, which will focus on the steps necessary to deliver the New Zealand Transport Strategy, GPS, and Auckland Council targets and policy associated with sustainability (particularly those related to the desired shift from single-occupant vehicles to public transport and “active” modes including cycling and walking). This includes responsibility for activities under the general heading of “demand management” in the existing RLTS, and the activities identified in the existing ARTA sustainable transport plan.

25.72 The RTA will have a strategic planning responsibility for sustainable transport as part of its transport planning function. This can be expected to include the identification of new infrastructure requirements, for example, the development of a regional network of cycleways, the development of regional standards for walking and cycling, and the development of policies for the promotion of these active modes of transport.

25.73 The RTA will also have some responsibility for the implementation of these plans, although this will be shared with local councils. As a general rule, the responsibility for walking and cycling facilities provided on roads should rest with the relevant road

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controlling authority: for arterial roads, the RTA would have responsibility, and for local roads, the local council.

25.74 Increasingly, however, there is likely to be a role for off-street facilities, especially for cyclists, to provide a safe alternative to on-street travel. To the extent that any such facilities are regionally significant (if they form a core part of the regional cycle network, or provide an alternative to a cycle route on a regional arterial), the responsibility will rest with the RTA.

25.75 Vancouver provides a good example of what may be achieved. A plan for pedestrians and cyclists forms an important part of its transport planning. The plan includes the identification of streets where cyclists and pedestrians have priority. It includes pedestrian refuge islands on roads and other measures to make walking a more pleasant experience. It includes the phasing of traffic lights so that pedestrians wait for a minimum amount of time before getting permission to cross the street. Generally it provides the same priority for pedestrians and cyclists as is provided for other forms of transport. The Commission believes that Auckland should adopt similar policies.

25.76 The RTA should also take responsibility for the coordination of travel planning and educational and promotional initiatives aimed at increasing the number of people cycling and walking, although some of the detailed implementation would be delegated to local councils, which are likely to be better placed to engage community input.

Other transport functions

25.77 The RTA would also take over responsibility for a number of ancillary transport functions, many of which are currently undertaken by territorial authorities, where these have synergy with the RTA's core functions. These functions include the provision of off-street parking (especially in relation to major centres and major arterials), enforcement of bus lanes and clearways on arterial roads, the provision of park-and-ride facilities, and demand management activities.

25.78 The detailed allocation of these functions between the RTA and local councils needs to take account of the scale at which the necessary skills and expertise can best be managed. It is important that the RTA does not become "weighed down" with minor transport functions that are better provided at the local level, as there is a risk that it could lose focus on the efficiency and effectiveness of the regional system as a whole. In general, the RTA should take responsibility for overall planning and coordination, but delegate implementation and operational management as much as possible to local councils.

25.79 The RTA would be responsible for the monitoring of progress towards transport objectives, policies, and actions contained in the regional transport plan (and the relevant parts of the regional spatial strategy). The RTA would prepare a regular monitoring report which measures performance against the targets established in the plan (and the spatial strategy). The monitoring results would be used as an input to the regular review of the plan.

25.80 The Auckland Council would be responsible for monitoring the performance of the RTA against its SOI.

Road pricing including tolls

25.81 The Commission believes that the future introduction of road pricing will be inevitable to provide a potential mechanism to manage demand on major roads, as well as providing a potential revenue stream. Road pricing includes tolling and congestion charging but it can also include charging for the use of all high-demand parts of the roading system. Road charging of that nature is appropriate only where good public transport is available and it will encourage the use of such transport. In principle the Commission is in favour of road pricing as a demand management tool and as a way of addressing the high cost of providing new roads. The concept should be the subject of an urgent Government study. The Commission understands that the technologies to implement road pricing in all its forms are available. The governance arrangements proposed should be able to manage a transition to road pricing in the future.

Governance arrangements

25.82 The RTA as proposed in this chapter would be a council-controlled organisation, responsible to its parent organisation, the Auckland Council. The RTA would be governed by a board appointed by the Auckland Council. The RTA will report to the Infrastructure Committee of the Auckland Council.

25.83 As noted above, the Auckland Council would retain responsibility for overall strategic planning for the region, and this would set the broad strategic context within which the RTA would operate, and identify the general level of public funding available. This would be subject to more detailed agreement through the council's approval of the RTA's regional transport plan and funding proposals.

25.84 The Auckland Council would have final approval of the SOI, following negotiation with and recommendations from the RTA Board. The Council would monitor the performance of the RTA against that SOI.

25.85 Board members would be selected for their individual and collective skills and abilities to prepare and implement plans for the development and management of the transport network in a manner that best achieves its statutory objectives, and meets the objectives set out in the RTA's governing documents.

25.86 In particular, board members will need to have a mix of skills and experience that enable them to make effective decisions on major infrastructure development projects, and also on the ongoing operation of transport systems including both road maintenance and traffic management, as well as public transport operations and contracting. In addition to a member appointed by NZTA,¹³ the following areas of expertise would be advantageous for the RTA Board:

- land use and transport integration

¹³ See section 105(3) of Land Transport Management Act 2003.

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- engineering and infrastructure development
- transport operations
- contracting and procurement
- financial management
- stakeholder engagement and public consultation
- the needs of pedestrians and cyclists.

25.87 The statutory provisions relating to the establishment of the RTA will need to ensure that the board is given sufficient freedom to use these skills and exercise its judgment. Wherever possible, decisions such as those relating to project prioritisation, system management, and operations should be kept free of political interference.

25.88 Because the Auckland Council has ultimate political accountability for funding the RTA however, there will need to be a mechanism that allows it to have influence over those plans where the funding or strategic implications are unacceptable. This may be achieved through the inclusion of a requirement to gain the Auckland Council's approval for decisions of a significant nature (as defined in the SOI). In addition, major projects would need to be included in the Auckland Council's long-term council community plan.

Funding

25.89 The governance model discussed in this chapter assumes that most revenues for land transport in the region will come from regional ratepayers (via the elected regional body) and road users (via the NZTA). Development contributions are also potentially available for new capital expenditure on particular roading projects.

25.90 While these funding arrangements necessitate a clear line of political accountability, it is important that this does not become confused with a detailed funding approval process for individual transport activities. As noted above, decisions on individual activities should be left to the RTA Board, within a framework and overall funding envelope that has been agreed with the Auckland Council through the SOI and annual planning process (subject to the ability to refer significant issues back to the Auckland Council for approval).

25.91 At least in the short term, it is expected the NZTA will have a role in approving funding for transport activities in the region. The RTA will have the responsibility of preparing an overall expenditure programme within the funding envelope established by the NZTA, which can then be submitted to the NZTA as a funding recommendation. Once the RTA and the NZTA have reached agreement or are close to agreement on funding issues, both bodies should then meet with key Government ministers and the Auckland Council Infrastructure Committee. That meeting should reach a decision as to funding which can be submitted for confirmation to the Government and to the Auckland Council. Over time, the approval process for individual activities should be able to move to an outcome-based model, where strategic objectives and the overall funding envelope are

established by the parent organisations, but the tactical decisions on funding priorities are made by the RTA.

25.92 It is presumed that the current funding of administrative costs of ARTA and territorial authorities will continue in favour of the RTA.

25.93 The proposed funding arrangements for the “local share” (the proportion of expenditure not funded from NZTA) will now be included in the overall rate levied by the Auckland Council. The financial assistance grants from the NZTA will all be paid to the Auckland Council. This will require the RTA to develop an agreed mechanism for allocation to local roads that reflects regional priorities and a fair and equitable allocation across the region, while minimising the potential for “pork-barrelling” as local communities compete for funds for local projects. Under this model, political accountability to ratepayers would be via the Auckland Council.

25.94 Future funding options include road pricing (see paragraph 25.81) and value capture from land development or redevelopment. Value capture represents the increase in land value that results from the rezoning of land from development or redevelopment; public agencies then “capture” a portion of that value through taxes, fees, or capital gains. Value capture is being increasingly used to fund transport in the United States¹⁴ and is a product of agencies such as VicUrban in Victoria and Landcorp in Western Australia.

25.95 Should a regional fuel tax be reinstated, it would be determined as part of the preparation of the regional transport plan, and the Auckland Council would be responsible for approving that plan and for the development of a formal proposal for submission to the Minister of Transport for approval.

25.96 It is likely that public transport will continue to be subsidised for the foreseeable future. The council will determine the amount of that subsidy after consultation with the RTA. The RTA will have the responsibility of setting public transport fare levels sufficient to meet that part of the cost of public transport not met by the subsidy. Consideration could be given in the future to the proposed Auckland Services Performance Auditor¹⁵ assuming the responsibilities of the commissioner appointed in Vancouver (see paragraph 25.22).

Alignment with central government policy

25.97 The model outlined in this chapter involves a joint arrangement between the RTA and the relevant Crown agencies (NZTA and ONTRACK) for the management of State highway and rail responsibilities within the Auckland region. The precise nature of this arrangement has not been determined at this stage, and it will need to be subject to more detailed examination with the Crown agencies and the Ministry of Transport. It is possible

14 C E Harris, “Slow Train Coming: The New Zealand State Changes its Mind about Auckland Transit, 1949-1956”, p. 20. [Originally published in *Urban Policy and Research*, Vol 23, No. 1, 2005.]

15 The Commission recommended the appointment of an Auckland Services Performance Auditor to oversee the performance of all Auckland Council activities. See Chapter 32, “Achieving a High-Performance Auckland Council”.

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that the joint management arrangement could evolve over time to allow a greater range of decisions to be made at the regional level.

25.98 However, it is clear that any such arrangement will require sufficient safeguards to be in place to assure the Government that its policy priorities will not be compromised by the regional governance arrangements. In particular, the Government will wish to ensure that the arrangements do not detract from

- the operational integrity of the State highway network
- the operational integrity of the national rail network
- the achievement of central government transport objectives
- the efficient and effective allocation of road user funds for which the Government has political accountability.

25.99 In part, these matters can be addressed through the specific arrangements that will be required for the joint management arrangements for State highways and rail infrastructure. Beyond this, however, the following statutory obligations on the RTA are suggested:

- a requirement for RTA to protect the integrity of the State highway network
- a requirement for RTA to protect the integrity of the national rail network (and, in particular, to ensure the continued functionality of the network for rail freight activity)
- obligations on the RTA (and the elected regional body) to give effect to the GPS and to national strategic objectives as articulated in any national land transport strategy (prepared under the LTMA) or national policy statement (prepared under the RMA)
- a requirement that the relevant Crown agencies be consulted at an early stage of the preparation of RTA plans and strategies.

Land use integration

25.100 The strategic planning responsibility of the elected regional body should provide for the integration of strategic planning for growth and transport at the regional level. At the lower level of the roading hierarchy, providing for the management of roads in combination with other local government functions (such as land use planning, open space, community facilities, and utilities) should also enable integrated planning.

25.101 The area where integration will be most challenging under the RTA model is likely to be on the arterial road network. While arterials have an important through-movement function, they must often also provide for property access, have a strong interface with adjacent land uses, and perform important open space and utility corridor functions. The management of these activities can have a major impact on the efficiency of the road, and conversely, the management of the road can have a major impact on those other activities.

25.102 These interfaces can lead to tensions, especially in sensitive locations such as town centres. There is also a risk that the RTA, with its statutory focus on transport, may overemphasise the transport role of the roads it manages to the detriment of other interests in the wider corridor (urban design, amenity, local land use development, town centre development, and the interests of pedestrians and cyclists).

25.103 To ensure that these tensions are recognised and appropriately managed, it will be necessary to place specific statutory obligations on the RTA to

- give effect to the high-level strategic spatial plan for urban development
- specifically recognise the functional relationships that exist between transport and land use
- consult the local community and the relevant local council in relation to proposals that impact on urban design, amenity, or local land use development near the transport corridors under its control
- prepare, with the relevant local council, joint management plans for key transport corridors
- recognise and give effect to regional sustainability policies, and policies in relation to walking and cycling.

Similarly it will be necessary for local councils to protect the integrity of regional networks when carrying out their land use planning functions.

25.104 There will also be a need to ensure close integration between the RTA and any future Urban Development Agency that may be put in place to actively promote development at key centres in the region. Because of the close relationship between the development and operation of transport infrastructure and centre development, it is important that the development plans of the respective public organisations are closely aligned. This could be achieved by requiring a formal opportunity for the RTA and the Urban Development Agency to provide comment on each others' plans prior to their approval.

Transport integration

25.105 As noted above, a potential problem with the RTA model as proposed is that it will add a third layer of road controlling authority to the existing two-layer model in Auckland, by transferring responsibility for arterial roads from local councils to the RTA. The risk is that this adds a further interface to the current arrangements.

25.106 In part, this can be managed through the proposal that State highways and arterials be subject to a joint management regime. Subject to the robustness of these arrangements, this should reduce the problems associated with the existing interface between State highway and arterial roads.

25.107 The focus then turns to the interface between arterial roads and local roads. The potential integration issues here can be mitigated by a clear delineation between RTA arterials and local roads.

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Skills and expertise

25.108 The establishment of a new RTA with a significant role in roading will require staff expertise that does not currently exist at the regional level. ARTA's current involvement in roading is only through project prioritisation. The skills and expertise in managing major roads are located in the NZTA (formerly Transit New Zealand) and the territorial authorities. There is also the Traffic Management Unit, but this is currently operated by the NZTA (which took over management of territorial authority traffic operations staff when the Traffic Management Unit was established). It would be sensible for this responsibility to be under the control of the proposed joint management regime.

25.109 It may be possible for these people to be relocated into the RTA, but this would be difficult if the NZTA continued to operate State highways separately. Under the joint management proposal for State highways and regional roads outlined earlier in this chapter, the RTA and the NZTA would agree on a staffing arrangement for the joint roading functions as part of their management agreement. NZTA has expertise that can and should be utilised rather than duplicating existing structures.

25.110 While the need for transitional arrangements for human resources is an issue that will need to be addressed for all local government functions, it is important to recognise that there are some particular shortages of skilled people in the transport sector at present, and any transitional arrangements need to be sensitive to the need to retain experienced and skilled staff. Terms and conditions for staff from different agencies will need to be aligned.

Accountability to users and funders

25.111 A further concern is that the RTA could fail to take sufficient account of transport user and community concerns, or lack accountability to those who provide the funds to the RTA. Where an appointed board that is one step removed from the direct political interface between elected members and transport users and/or funders makes the primary decisions, there is a risk that those decisions may not fully reflect their needs or concerns.

25.112 The replacement of the Regional Transport Committee of the ARC also risks losing the input of the various external interests that are currently represented on the committee (including members representing the objectives of economic development, safety and personal security, access and mobility, public health, environmental sustainability, and cultural interests).

25.113 The steps needed to mitigate these risks will be closely aligned with the statutory obligations to give effect to the regional spatial strategy, as discussed above. In addition, there will be a need for

- a clear statutory prescription of RTA and Auckland Council roles, with supporting detail contained in the SOI

- the RTA, SOI, and budget to be agreed between the RTA Board and the Auckland Council, with any funding limits and constraints to be explicit at commencement of planning processes
- a statutory requirement that the RTA Board is appointed with individual and collective expertise to enable the necessary decisions to be made efficiently and effectively
- specific limits on the ability of elected representatives to interfere with operational decisions, subject to a requirement for significant decisions to be referred to the Auckland Council
- a strengthening of the formal consultation obligations of the RTA in preparing its regional transport plan, to specifically seek submissions from people and organisations that represent economic development, safety and personal security, access and mobility (particularly for the elderly and those with disabilities), public health, environmental sustainability, and cultural interests, and from the local councils which in turn should consult with their communities
- a robust system to be set up to register and act on complaints and to monitor the response to those complaints.

Transition issues

25.114 Changes involved in moving from the existing to the proposed new transport governance model are summarised in Table 25.1.

25.115 It will be necessary for the Establishment Board, in association with the Transition Management Group, to appoint interim directors for the new RTA and to establish a proposed management structure for that authority, with the objective of ensuring that the new authority will be able to operate and assume its responsibilities upon the formation of the Auckland Council.

25.116 The Establishment Board and the Transition Management Group will need to ensure the involvement and cooperation of ARTA in the transition of its activities to the new Regional Transport Authority.

25. Transport

Table 25.1 Summary of proposed changes to transport organisations and processes

Organisation or process	Proposed changes
Auckland Council	Strategic transport planning functions and Regional Transport Committee support functions taken over by new Regional Transport Authority (RTA)
Auckland Regional Transport Authority	Existing functions incorporated into new RTA
Local authorities	Regional arterial road controlling functions and other regionally significant transport-related functions taken over by new RTA
New Zealand Transport Agency	Statutory functions retained, but joint management arrangement with new RTA for State highways; funding responsibilities for rail infrastructure added
Regional Transport Committee	No longer required in Auckland as regional land transport strategy replaced
Regional land transport strategy	No longer required in Auckland; replaced by regional spatial strategy and regional transport plan
Regional public transport plan	Continues as at present, but prepared by new RTA
Regional land transport programme	Continues as at present, but prepared by new RTA and may form part of the regional transport plan

Recommendations

25A A new Regional Transport Authority (“RTA”) for Auckland should be established as a council-controlled organisation with responsibility for the planning, development, and management of arterial roads and all public transport infrastructure service planning and procurement. The RTA should replace the Auckland Regional Transport Authority (“ARTA”).

25B The RTA should prepare, for approval by the Auckland Council, a regional transport plan which will give effect to the regional spatial plan.¹⁶

¹⁶ See Recommendation 24A.

- 25C** The RTA should assume the statutory responsibility for all regional arterial road controlling functions and other regionally significant transport-related functions within the Auckland Council area. All these functions from the abolished local authorities and all ARTA's functions (including assets and staff) should be transferred to the RTA on the establishment date.
- 25D** Local roads should be controlled by local councils with the RTA exercising a funding approval role and ensuring consistency with the regional spatial plan.
- 25E** The New Zealand Transport Agency and the RTA should establish a joint management structure to oversee the operational management of the State highway and arterial road system in the Auckland region. The RTA and ONTRACK should establish a joint management structure to oversee the operational management of rail in the Auckland region.
- 25F** The Minister of Transport and other relevant Ministers should meet with the Auckland Council's infrastructure committee and the Mayor of Auckland on at least a quarterly basis to discuss transport issues.

Transition

- 25G** The Government should promote legislation to implement the proposals in Chapter 25, by amending as necessary the Land Transport Management Act 2003 and the Local Government (Auckland) Amendment Act 2004, and other relevant Acts.
- 25H** The Establishment Board will oversee the establishment of the RTA and appoint interim directors, who will consult with the Auckland Council on a draft statement of intent at an early stage. The interim board of the RTA should appoint an interim chief executive who will work with the Establishment Board on the design of the RTA organisational structure.

26. The Three Waters

Ko te wai te ora ngā mea katoa.
Water is the life giver of all things.

26.1 The Commission's terms of reference invite it to investigate what ownership, governance, institutional arrangements, and funding responsibilities are required to ensure the effective, efficient, and sustainable provision of public infrastructure, services, and facilities.¹

26.2 Services relating to the three waters (water, stormwater, and wastewater), and the management of the infrastructure that underpins those services, are of critical importance to the well-being of the Auckland region. The supply of adequate drinking water and the removal/treatment of wastewater and stormwater are some of the most fundamental needs of towns and cities. These services play a vital role in ensuring the health and safety of the community, a productive economy, and a healthy environment.

26.3 All of Auckland's water supply and disposal infrastructure is publicly owned (including in Papakura where water service operations are contracted to a private company). It constitutes a significant proportion of the region's assets. The assets of Watercare Services Limited (Watercare) alone are valued at around \$2 billion.² In 2006/07 the Auckland water services industry had revenue of around \$600 million.

26.4 Access to water is a fundamental human right. New Zealand has ratified the International Covenant on Economic, Social and Cultural Rights and the General Comment on Water. This provides that

The human right to water entitles everyone to efficient, affordable, physically accessible, safe and acceptable water for personal and domestic uses.³

26.5 Some of the key issues the Commission addresses in this chapter are

- how the region's water service providers should be owned and governed and, in particular, whether there should be vertical and/or horizontal integration of the seven retail and two bulk suppliers

1 See Appendix A: Terms of Reference.

2 Watercare Services Limited, *Annual Report 2008*, Auckland, p. 2 (available at www.watercare.co.nz, accessed February 2009).

3 United Nations International Covenant on Economic, Social and Cultural Rights, General Comment No. 15 (2002) on Articles 11 and 12 – The right to water (available at www.converge.org.nz/pma/water.htm, accessed March 2009).

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- how demand management can be encouraged to reduce the future capital expenditure required, restraining costs and prices
- how to ensure that environmental considerations are adequately taken into account
- how Māori interests in water should be addressed.

26.6 One of the most important decisions is whether or not the industry should be integrated, with a single regional body providing all water services in the Auckland region. In making this decision, the Commission focused on whether integration would result in appropriate environmental management, better demand management, and cost savings so that prices can be restrained.

26.7 This chapter is structured as follows

- a brief overview of the state of the industry
- a more detailed consideration of the relevant issues
- the Commission's recommendations.

Appendix 26.1 provides a historical background to the water industry in today's Auckland region.

26.8 As is required by its terms of reference, the Commission's recommendations relate to the Auckland region only. The Commission notes, however, that a recent report suggests that water services should be addressed on a national basis, and that there should be a national regulatory body.⁴ It recommends that the regulatory body should, amongst other things, develop and administer pricing controls on the provision of water and wastewater services to customers when these are billed on a volumetric basis, and should administer and allocate resources available in any central government funding programmes.⁵

Overview – the state of the industry

26.9 The Auckland water services industry is not in a state of crisis, but neither is it working as well as it should.

26.10 The Auckland region is fortunate to have good sources of water. There are 10 large, water-storage lakes in the Waitakere and Hunua ranges. There are also a number of smaller, underground sources. Around 10% of the region's water is drawn from the Waikato River, and this figure is likely to increase. The Waikato River is an important

4 *National Water Industry 2008 Report Card and Road Map*, report for the New Zealand Council for Infrastructure Development by GHD Limited and PriceWaterhouseCoopers, Auckland, September 2008, p. v, (available at www.nzcid.org.nz accessed February 2009).

5 *Ibid.*, p. vi.

backstop source, although water drawn from there is more expensive because of the cost of pumping it to Auckland.

26.11 The quality of treated water in Auckland is high by both New Zealand and international standards, with a Ministry of Health “Aa” grading (see discussion at paragraphs 26.82–26.84).

26.12 The two wastewater treatment plants at Mangere and Rosedale are also of high quality, helping to minimise the environmental impact of treated wastewater entering our harbours.

26.13 Aucklanders are not profligate water users. By international standards, Auckland’s water use is fairly moderate and has remained relatively static in recent years (see paragraphs 26.114–26.115). Nonetheless, significant savings could be made if per capita demand for water were reduced. Hundreds of millions of dollars could be saved through deferred capital expenditure on water and wastewater infrastructure if water demand management were applied consistently throughout Auckland (see paragraph 26.125).

26.14 One obstacle to water conservation is the age and condition of the pipe network, which in some areas is plagued by leaks. For example, Metrowater has water-loss rates of around 18%,⁶ or more than 7 million cubic metres per year.⁷ This equates to more than \$2.5 million worth of water,⁸ which must be paid for through higher water costs for the remaining water. Metrowater is working to address this issue.⁹

26.15 The total volume of treated potable water lost each year through leaks from the networks of Auckland’s water retailers is around 16 million cubic metres, representing 11% of the water volume processed by these organisations annually.¹⁰

26.16 Another obstacle to water conservation is the different priorities applied by each of the seven water retailers in Auckland. Some are much more committed to demand management than others. It is understandable that the water retailers, who are not directly responsible for the large capital expenditure involved in sourcing and treating water, and who make money from selling water, may not always emphasise demand management principles which could help defer expenditure.

26.17 One significant operational concern, which represents a major environmental threat, is in relation to stormwater. There is no detailed plan for stormwater management and funding in Auckland. Runoff, from roads in particular, is degrading and polluting Auckland’s waterways. In wet weather, a combination of groundwater and stormwater

6 Auckland Water Group, *Auckland Water Industry Annual Performance Review 2006/07*, p. 30 (available at www.aucklandcity.govt.nz/council/documents/awireview, accessed February 2009).

7 *Ibid.*, p. 30.

8 This is the wholesale cost only, i.e. the amount Metrowater pays to Watercare.

9 Auckland Water Group, *Auckland Water Industry Annual Performance Review 2006/07*, p. 3. In 2006/07 Metrowater repaired more than 600 leaks, saving more than 1.5 billion litres per year, or about 3% of its annual purchase volume from Watercare.

10 *Ibid.*, p. 30.

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infiltrates the wastewater networks and causes overflows of sewage. Contaminant levels in some estuarine sediments and freshwater streams have reached, and often exceed, the recognised international sediment quality criteria for the protection of aquatic life.¹¹

26.18 In terms of governance, the Auckland water services industry is beset by the same problems which the Commission has encountered in relation to many other areas. In particular, numerous plans and reports have been prepared but because of the fragmented nature of the industry they have resulted in little action (see paragraphs 26.62–26.81).

26.19 There is a different water retailer in each of the seven districts/cities in Auckland. In some areas, a council department is responsible for retail water supply. In other areas, retail water supply has been outsourced to an independent provider. In each area, different philosophies and priorities apply. For example, in Manukau City priority is placed on keeping water affordable, and in Waitakere City greater priority is placed on environmental concerns. The retail price of water varies markedly across the region (see paragraphs 26.58–26.61).

26.20 The fragmentation of the industry has also led to poor regional planning and decision making. The industry has acknowledged this issue and is attempting to address it. Recently, all industry participants agreed on a joint planning initiative called the Three Waters Project. This is a voluntary process in which industry participants develop an agreed strategy to manage regional water, wastewater, and stormwater issues (see paragraphs 26.75–26.81).

26.21 The Three Waters process has been helpful, but because it is a voluntary process it is not suitable for resolving difficult or contentious issues. Even if an agreement can be reached on a particular issue, that agreement is not binding. Issues can be revisited time and time again, and often are. For example, the Three Waters process has previously identified the Rosedale Wastewater Treatment Plant, owned by the North Shore City Council, as the most appropriate choice for a second regional wastewater treatment facility once the Mangere Wastewater Treatment Plant reaches capacity. The Rosedale plant can potentially service 1.5 million people and no other option is as cost-effective for the region. Nonetheless, the adoption of the Rosedale plant as a regional facility is in doubt, because there is no entity with the power to make it happen (see paragraphs 26.88–26.94).

26.22 Similarly, the Commission was advised that proposals to develop consistent infrastructure design standards, particularly for wastewater pipelines, have been rejected. As a result, under current arrangements there is no consistency in the type of pipes used in the network, with obvious cost implications.

26.23 Since 2003, members of the industry have also cooperated to produce an extremely useful and well-presented publication called the *Auckland Water Industry Annual*

¹¹ Gardiner, Laurie and Armstrong, Bill, “Identifying Sensitive Receiving Environments at Risk from Road Runoff”, *Land Transport New Zealand Research Report 315*, Wellington, 2007, Appendix B, p. 39 (available at www.landtransport.govt.nz/research/reports, accessed February 2009).

Performance Review, which compares the performance of industry participants across a range of key indicators. Under present arrangements, however, it is not clear what use is made of this report.

Current organisational structure

Summary of structure

26.24 There is one wholesale supplier of bulk water in the Auckland region – Watercare. Watercare supplies bulk water to six of the seven territorial authorities. Franklin District Council has its own water supply scheme.

26.25 All of the seven territorial authorities provide retail water and wastewater services in their districts. Four (Rodney, North Shore, Waitakere, and Franklin) do so directly. Two others (Auckland and Manukau) provide these services through council-controlled organisations (“CCOs”), Metrowater and Manukau Water respectively. Papakura District Council provides these services under a franchise agreement with United Water, a privately-owned organisation.

26.26 Watercare provides wastewater treatment and disposal services to four of the six councils to which it supplies bulk water. North Shore City Council and Rodney District Council undertake their own wastewater treatment and disposal, and there are also a number of smaller plants across the region.

26.27 All local authorities are individually responsible for provision of stormwater services.

26.28 There is one environmental regulator for water quality and coastal water management for the whole region – the Auckland Regional Council (“ARC”). It is possible that some environmental issues will be regulated at a national level at some stage in the future (see paragraph 26.143)

26.29 All of the region’s water infrastructure is publicly owned. Some of the pipe network is regional, and is owned by Watercare. Other parts of the network are owned by the seven territorial authorities.

Watercare Services Limited – structure and functions

26.30 Watercare is a council-owned organisation (“CO”). A CO is an organisation in which a local authority (or authorities) holds or controls some voting rights or has the right to appoint one or more of the directors. In other words, a local authority has an interest in the organisation’s governance, but not necessarily a controlling interest. (This is a key difference between a CO and a CCO. CCOs are more closely controlled by their local authority owners, who hold at least 50% of the voting rights or have the right to appoint at least 50% of the directors.)

26.31 There are, however, a number of Watercare-specific provisions in the Local Government Act 1974 that make its governance structures closer to those of a CCO than

26. The Three Waters

a CO. For example, Watercare is required to have a statement of corporate intent, like a CCO.

26.32 The 1974 Act also requires Watercare to

manage its business efficiently with a view to maintaining prices for water and wastewater services at the minimum levels consistent with the effective conduct of that business and the maintenance of the long-term integrity of its assets.¹²

26.33 Watercare's governance arrangements are complex and somewhat unusual.¹³ Watercare is owned by the six territorial authorities it supplies, and the number of shares of each of the six territorial authorities is based on the number of water connections in each area. Auckland City Council has the greatest shareholding in Watercare (41.6%), followed by Manukau City Council (25.1%).

26.34 The shareholders are represented by the Watercare Shareholders' Representative Group, which comprises two representatives from each of the shareholding councils. Decisions of the Shareholders' Representative Group are binding on all shareholders provided they are made by representatives who together hold at least 75% of all shares in Watercare. The Shareholders' Representative Group is assisted by an Officers' Working Group made up of employees from the shareholding councils.

26.35 Watercare also has a seven-member board of directors who are appointed by the Shareholders' Representative Group to manage the organisation. The relationship between the board of directors and the Shareholders' Representative Group is often a point of tension.

26.36 The objectives of Watercare are set out in an annual statement of corporate intent, which is a published document that contains both strategic directions and key initiatives and performance targets that have been agreed on by both the board and the Shareholders' Representative Group. For example, Watercare's current statement of corporate intent includes the following targets:¹⁴

- to develop by 30 June 2009 a new, region-wide model for forecasting demand
- to implement a rising block-tariff pricing structure based on the long-run marginal cost of water (the first "block" of water sold is charged at a fairly low price – additional water is charged at a higher rate)
- to maintain the public health grading of water treatment and networks at "Aa"

¹² Local Government Act 1974, Part 44C, section 707ZZZS.

¹³ Watercare's governance framework is explained, including the obligations of its shareholders, by the Office of the Auditor-General in its 2001 report entitled *Good Governance – Local Authority Governance of Subsidiary Entities, Part 3: Watercare Services Limited* (available at www.oag.govt.nz/2001, accessed February 2009).

¹⁴ Watercare Services Limited, *Statement of Corporate Intent for the three year period commencing 1 July 2008*, Auckland, 2008, pp. 4–7 (available at www.watercare.co.nz, accessed February 2009).

- to ensure that during a drought with a 1% probability of occurrence, demand can be met with 15% residual capacity in its reservoirs
- to achieve 90% or more of customers who rate Watercare as “good”, “very good”, or “excellent” using an annual satisfaction survey
- to target an “A” credit rating from the Standard & Poors rating agency
- to ensure that pricing methodology enables revenue to be set so as to recover all costs and provide for an adequate level of debt servicing.

26.37 Watercare has two standing consultative and advisory committees which provide input into company plans and projects:

- the Māori Advisory Group (which represents mana whenua¹⁵ interests)
- the Environmental Advisory Group.

26.38 Watercare draws water from 12 sources (10 water-storage lakes, one underground water source, and the Waikato River). It treats the water and supplies it to six local network operators, who on-sell it to more than 1.2 million customers in the Auckland region.

26.39 Watercare also operates a regional wastewater network. It receives wastewater from four local network operators (Auckland City, Waitakere City, Manukau Water, and United Water) and treats it at the Mangere Wastewater Treatment Plant. It also regulates trade waste discharges from businesses and has over 600 trade waste customers.¹⁶

26.40 Table 26.1 summarises Watercare’s ownership structure and the services it provides to each of the territorial authorities in the Auckland region.

Water services in Manukau City

26.41 Retail water and wastewater services in Manukau City are supplied by a CCO, Manukau Water Limited. Manukau Water is wholly owned by Manukau City Council, and has around 102,000 residential and commercial customers.

26.42 The ownership of retail water and wastewater assets, and the responsibility for providing these services to the community, was transferred from Manukau City Council to Manukau Water Limited on 3 July 2006. Manukau City Council still, however, approves the level and structure of charges for water and wastewater services.¹⁷ Manukau Water advised the Commission that the adoption of a CCO model has led to increased efficiencies.

15 Mana whenua – local Māori with ancestral ties to the land.

16 Trade waste control is managed by Watercare under the Auckland Regional Council’s trade waste by-law 1991 and the Auckland Metropolitan Drainage Act 1960, pursuant to the Local Government Act 1974, Part 44C, section 707ZZZS(1)(f).

17 Manukau City Council’s rights and role in Manukau Water Limited are set out in the company’s Statement of Intent July 2008 to June 2011, at p. 7 (available at www.manukauwater.co.nz, accessed March 2009).

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Table 26.1 Watercare Services Limited's ownership structure and services

Watercare's owners	Shareholding %	Customers	Bulk water	Wastewater collection and treatment
Auckland City Council	41.6	Metrowater (wholly owned by Auckland City Council)	✓	✓
Manukau City Council	25.1	Manukau Water (wholly owned by Manukau City Council)	✓	✓
Waitakere City Council	16.7	Waitakere City Council	✓	✓
North Shore City Council	11.5	North Shore City Council	✓	–
Papakura District Council	3.7	United Water (operates under a franchise agreement with Papakura District Council)	✓	✓
Rodney District Council	1.4	Rodney District Council)	✓	–
Franklin District Council	–	–	–	–

Source: Adapted from Watercare Services Limited, *Annual Report 2007*.

26.43 Manukau Water purchases bulk water and wastewater supply, collection, and treatment services from Watercare. It manages some of its own wastewater treatment at a plant at Beachlands, and has an initiative under way for a wastewater system for the Kawakawa Bay community.

Water services in Papakura District

26.44 In the Papakura District, retail water and wastewater services are provided by a private company, United Water International Pty Limited (United Water). In April 1997, Papakura District Council entered into a 30-year franchise agreement (with a 20-year right of renewal) with United Water to provide water services to around 15,000 residential and commercial customers in Papakura. United Water is responsible for the setting of tariffs and customer billing, subject to certain contractual constraints. The most important of these constraints is a requirement that the prices charged are lower than the regional average.

26.45 Papakura District Council has retained ownership of the relevant assets, which include water and sewerage mains, one pumping station, and one header tank/reservoir. The franchise agreement requires that the assets be in better condition at the end of the franchise agreement period than they were at the beginning of this period.

26.46 The franchise agreement also requires United Water to extend, modify, replace, and repair, at its cost, the infrastructural assets as required in order to provide effective water services in Papakura District. All permanent improvements become the property of Papakura District Council.

26.47 The operation of the franchise agreement is monitored through independent reviews of United Water’s pricing structure each year, and five-yearly reviews of the condition of the assets. These reviews are carried out by Papakura District Council’s engineering consultants, who also carry out ongoing reviews of water quality in conjunction with the Department of Health and Watercare. The Commission was advised by Papakura District Council that the terms of the agreement can make it difficult to monitor the contract effectively.

Water services in Auckland City

26.48 Retail water and wastewater services in Auckland City are supplied by a CCO, Metrowater. Metrowater is wholly owned by Auckland City Council. It has a six-person board of directors, who are responsible to the council. Auckland City Council approves the level and structure of water charges.¹⁸

26.49 Metrowater supplies retail water services to around 167,000 residential and commercial customers. It also collects wastewater and transports it to Watercare’s wastewater mains for treatment at the Mangere Wastewater Treatment Plant.

26.50 The islands of the Hauraki Gulf, such as Waiheke, Great Barrier and Rakino Islands, are not connected to Auckland City’s water or wastewater networks. Island residents rely on water collected in rainwater tanks for drinking water and septic tanks for wastewater disposal. There is also a small-scale wastewater treatment plant on Waiheke, which is owned and operated by Metrowater. It services some commercial areas where on-site disposal systems had become unsatisfactory.

Water services in North Shore City

26.51 Retail water services in North Shore City are provided by the council directly, not via a CCO or third party. North Shore City Council purchases bulk potable water from Watercare and delivers it through the council’s pipe network to around 74,000 residential and commercial customers.

26.52 Wastewater is pumped to the Rosedale Wastewater Treatment Plant, which is also owned by North Shore City Council. After treatment, the effluent is discharged through an outfall pipe into the sea. The current outfall pipe is 600 m long – a \$116 million project is under way to install a new outfall pipe which is over 2.5 km long and has a capacity six times greater than the current outfall pipe.¹⁹

Water services in Rodney District

26.53 Retail water services in Rodney District are provided by the council directly, not via a CCO or third party. Rodney District Council services around 18,000 residential and

¹⁸ The company’s targets are set out in its annual statement of intent available at www.metrowater.co.nz (accessed February 2009).

¹⁹ Wayne Thompson, “Shore’s new pipeline inching way out to sea”, *New Zealand Herald*, 29 January 2009. Trade waste control is managed by the council under the North Shore City Bylaw 2000, Part 9, Trade Waste. The council regulates trade waste discharge from businesses and has over 730 trade waste customers.

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commercial customers. Being a rural area, large parts of Rodney District have neither water nor wastewater reticulation services.

26.54 Rodney District Council purchases bulk potable water from Watercare to service the Hibiscus Coast area, but otherwise relies on separate sources within Rodney District, such as bores and rivers, for the district's water supply. Rodney District Council also provides all wastewater services within its area.

Water services in Waitakere City

26.55 Water services in Waitakere City are provided by the council directly, not by a CCO or third party. Waitakere City Council purchases around 16 million cubic metres of bulk potable water from Watercare each year, which it distributes to around 61,000 residential and commercial customers. It also collects wastewater and transports it to Watercare's wastewater mains for treatment at the Mangere Wastewater Treatment Plant.

Water services in Franklin District

26.56 Water services in the Franklin District are provided by the council directly, not via a CCO or third party. The council has around 13,000 residential and commercial customers.

26.57 Franklin is unique in that it is not connected to the rest of the Auckland region's water, wastewater, or stormwater infrastructure. Franklin District Council owns, maintains, and develops its own 11 water and six wastewater treatment plants and associated reticulation systems.

Pricing structures

26.58 Throughout the Auckland region, water is metered and charges reflect the actual amount of water used. This is quite unusual in New Zealand at present. The introduction of metering and volumetric charging for water has assisted in moderating demand (see paragraph 26.116).

26.59 The price charged for water varies throughout the Auckland region. For example, it is \$1.28 per cubic metre in Manukau City, and \$1.48 per cubic metre in Waitakere City. Direct pricing comparisons are complicated, however, as there are also variations in service fees (annual fees, connection fees, and so forth), and prompt payment discounts.

26.60 Most wastewater and stormwater services are funded through rates. However, Auckland City and Papakura District wastewater charges are based on water consumption as a proxy for a volumetric charge. Non-residential users in Manukau City also pay for wastewater on the basis of a notional volumetric charge.

26.61 In Auckland City, Metrowater's residential wastewater charges are based on 75% of the total water supplied. For example, a customer using 1,000 litres of water would be charged for 750 litres of wastewater. (The other 25% is an allowance for water used in the garden, which does not enter the wastewater system.) In the Papakura District, United Water's wastewater charges are based on 80% of the total water supplied.

Previous industry reviews

26.62 Auckland’s water services industry has been the subject of numerous reviews, which were made available to the Commission.²⁰ Many of these reviews identified the same issues, such as the benefits of regional decision making, but unfortunately have resulted in little action.

26.63 In November 1998, the Government announced a review of the delivery of water services in the Auckland region. As a result, in May 2000 an industry stakeholders’ forum was held. All the territorial authorities in the Auckland region (except Franklin District Council which has its own separate structure for water services) participated in this review.

26.64 The key conclusions included the following:

- The region’s infrastructure in some of its older parts included ageing and damaged assets.
- The performance of individual operators and the industry as a whole was very difficult to assess. One of the key problems identified was the lack of mandatory or agreed standards and information disclosure.
- The region was in the process of investigating options to mitigate the effects of untreated stormwater discharges and over 1,000 wastewater overflows per year.
- The effects of the overflows and the cumulative effect of the pollutants suspended in untreated stormwater were not fully understood. The costs associated with addressing these impacts would be very significant.

20

- LEK Partnership & Northington Partners, *A Watertight Future*, 1995
- Credit Suisse First Boston, *Reform of the Water Industry*, 1995
- Parliamentary Commissioner for the Environment, *Ageing Pipes and Murky Waters: Urban water system issues for the 21st Century*, 2000
- Parliamentary Commissioner for the Environment, *Beyond Ageing Pipes: Urban Water Systems for the 21st Century*, 2001
- Worley Consultants, *The Quality and Reliability of Auckland’s Water and Wastewater Services*, 2000
- Cap Gemini Ernst & Young, *Providing incentives for efficiency and price-minimisation*, 2000
- Cap Gemini Ernst & Young, *Reducing costs by amalgamation*, 2000
- Cap Gemini Ernst & Young, *Increasing Competition in Potentially Contestable Parts of the Industry*, 2000
- Marsden Jacob Associates, *Appropriate Methodology for the Pricing of Water and Wastewater Services*, 2001
- LEK Consulting, *Commentary on report by Marsden Jacob Associates entitled “Appropriate Methodology for the Pricing of Water and Wastewater Services 12 November 2001”*, 2002
- National Economic Research Associates, *Rationalisation Options Study – A Report for Auckland City and Metrowater*, 2003
- PriceWaterhouseCoopers et al., *Funding Auckland Regional Stormwater – An Options Analysis*, 2004
- Saha International, *Review of the Auckland Water Services Industry – Current state analysis*, 2006.

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- The main driver of cost increases in the water industry was the \$4.7 billion forecast capital expenditure over the following 17 years.
- There was poor regional coordination of the capital expenditure and maintenance plans of the operators.

26.65 Many of these issues still face Auckland’s water services industry today.

26.66 In December 2000 and February 2001, the participating territorial authorities endorsed three possible options for reform, which were put to the public for consultation.²¹ These were described as follows:

- **Improved status quo:** no change to the way the region’s water industry was organised, but greater voluntary industry cooperation and coordination.
- **Shared network:** all the pipes in the region being owned by one public entity, with the retail end of water and wastewater being opened up to competition.²² Competing operators would have access to the pipe network. Bulk water supply and wastewater treatment would remain with a single entity in the short term at least.
- **One provider:** combining Auckland region’s entire water services industry into a single entity, which would be governed proportionately by current industry owners.

26.67 All three options required

- assets to remain in public ownership
- the disclosure of performance
- some form of regulatory body.

26.68 A possible fourth option (two vertically integrated entities consisting of “Northwest Water” serving Rodney, North Shore, and Waitakere, and “Southeast Water” serving Auckland, Manukau, and Papakura) was rejected.

26.69 A Cap Gemini Ernst & Young report dated 30 June 2000, which was prepared for the key industry participants, identified significant potential savings that could be achieved as a result of integration.²³ It concluded that annual operating cost savings of 5% (excluding implementation costs and tax) would be possible if the industry were fully

21 *Auckland Region Water, Stormwater & Wastewater Review – Progress Report on the General Consultation Process and Iwi Consultation*, Auckland Water Steering Group, Auckland, 12 June 2001, p. 5.

22 North Shore City did not support this option.

23 Cap Gemini Ernst & Young, *Reducing costs by amalgamation*, report for Auckland Water Steering Group, 9 June 2000, p. 5.

integrated (that is, if the “one provider” option were adopted).²⁴ It noted that establishing a fully integrated entity would ensure effective decision making concerning investment. It also observed, however, that adopting a fully integrated model would require significant reliance upon governance and regulatory frameworks to place external checks on investment decisions.

26.70 In February–March 2001, consultation was undertaken with the general public. This process included public submissions and hearings. The “one provider” option was preferred by most of the respondents (68%).²⁵

26.71 However, the industry reform and regulatory review process then stalled. In part this was because of a lack of consensus amongst industry stakeholders.

26.72 A number of other reviews have been carried out in relation to Auckland’s water services industry in recent years. The most recent of these, dated July 2006, was carried out by Saha International Limited and included a summary of 11 prior expert reports on the industry.²⁶

26.73 The Saha report highlighted a number of concerns in relation to Auckland’s water services industry, including the following:

- The industry structure was fragmented.
- There was a role for regulation.
- Considerable scope existed for greater coordination and cooperation, particularly in the area of capital expenditure.
- Different stakeholders had different priorities and objectives.
- Large-scale investment was required to deal with stormwater issues.

26.74 According to the Saha Report, investment planning needed to be better integrated, both across the “three waters” and across the region as a whole.

The Three Waters Project

26.75 The Three Waters Project is a joint planning initiative between all territorial local authorities and local network operators in the region. It started in November 2004 and

²⁴ Ibid., pp. 24 and 67. Also the report done for the Commission in February 2009 by Taylor Duignan Barry (*Financial Analysis: Re-organisation of the Councils in the Auckland Region*), adopts a range of efficiencies in water and wastewater capital expenditure of \$10 million to \$13 million per annum, based on an assumed 5% saving in capital expenditure from unified planning. (See Appendix B, p. 761.)

²⁵ *Auckland Region Water, Stormwater & Wastewater Review – Progress Report on the General Consultation Process and Iwi Consultation, Auckland Water Steering Group*, p. 7. The report noted that 2,307 written submissions were received from the public – a summary of the submissions analysis is set out in Appendix A of the report.

²⁶ Saha International, *Review of the Auckland Water Services Industry – Current state analysis*, Auckland, 27 July 2006, p. 104.

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is being led and facilitated by Watercare. The ARC, as the regional regulator of water quality, is participating as an observer.

26.76 The Three Waters Project is a voluntary process in which industry participants agree on the best way in which to approach various regional issues. Its purpose is to develop an agreed strategy for the delivery of water services in the Auckland region to the year 2100.

26.77 In order for an issue to be considered as part of the Three Waters Project, the delivery of the outcome must require significant joint planning at a regional and local level. Generally, there is a minimum requirement of \$10 million cost for an issue to qualify for inclusion in the process.

26.78 Stakeholder participation in the Three Waters Project has proved variable. Some of the organisations involved have participated actively, attended most meetings, and provided detailed responses to draft documents. They have a good understanding of the regional issues and have participated in robust, constructive debates on all key aspects. Other organisations have been less committed to the process.

26.79 A draft Three Waters Strategic Plan was published in April 2008.²⁷ It proposed a number of key strategic directions,²⁸ including

- reducing the per person demand for water by 15% of 2004 levels by 2025²⁹
- substituting rainwater and/or treated wastewater for 10% of the remaining potable water use by 2025³⁰
- continuing to use the Mangere Wastewater Treatment Plant as the primary regional wastewater treatment facility for the next 15–20 years, with a combination of both Mangere and Rosedale Wastewater Treatment Plants in the longer term.³¹

26.80 Industry stakeholders have recently provided submissions on the draft. The responses demonstrate a mixed level of support for the sort of regional initiatives outlined above. It is clearly difficult to obtain a regional consensus on strategic issues, particularly as many of the stakeholders involved are under statutory obligations to operate in the interests of their particular area.

26.81 Another difficulty is that industry stakeholders who may have supported a particular strategy at the time the draft plan was prepared, subsequently took a different view. One reason for this is the electoral cycle – the constant influx of newly elected representatives makes voluntary, long-term cooperation difficult. Naturally enough, local body members

²⁷ *Three Waters Draft Strategic Plan Discussion Version*, Watercare Services Limited, Auckland, April 2008.

²⁸ The Commission notes that the matters dealt with by the Three Waters plan are the types of policy issues that should be approved by the Auckland Council (see paragraph 26.194 concerning the statement of corporate intent).

²⁹ *Three Waters Draft Strategic Plan Discussion Version*, Watercare Services Limited, p. 57.

³⁰ *Ibid.*, p. 57.

³¹ *Ibid.*, pp. 38, 44, and 50.

are reluctant to be bound by the comments and views expressed by their predecessors, but this causes problems with long-term planning. The *Three Waters Final 2008 Strategic Plan*, which also includes the three key strategic directions referred to above, was published in December 2008.³²

Drinking/potable water

26.82 The quality of the Auckland region’s water supply is generally of a high standard, with a Ministry of Health “Aa” grading. Recent upgrades have been undertaken to collection and treatment assets in the region.

26.83 Until very recently, New Zealand had been unusual among developed nations in relying almost entirely on voluntary mechanisms to safeguard the treatment and distribution of drinking water. However, the Health (Drinking Water) Amendment Act was enacted in 2007, requiring suppliers to take all reasonably practicable steps to comply with the New Zealand Drinking Water Standards. These standards have existed since 1984 but compliance with them was not mandatory.

26.84 The introduction of this Act will increase compliance costs in relation to the water services industry nationally, but the Commission understands that most of Auckland’s water supply already complies with the new Act.

Wastewater

26.85 Wastewater is water disposed of from homes, offices, and industry. It comes from toilets, sinks, showers, washing machines, and industrial processes.

26.86 Around 133 million cubic metres of wastewater is treated in the region annually.³³ Most of this (104 million cubic metres) is treated by Watercare at its Mangere Wastewater Treatment Plant.³⁴ A further 21 million cubic metres is treated by North Shore City Council at its Rosedale Wastewater Treatment Plant.³⁵ There are also a number of smaller, local treatment plants.

26.87 The wastewater treatment plants at Mangere and Rosedale are both state-of-the-art and provide a high level of treatment. However, the wastewater reticulation network in older parts of the Auckland region is inadequate. Particularly in Auckland City, some of the pipes are too small and some are old and damaged, allowing infiltration from stormwater and groundwater.

32 *Three Waters Final 2008 Strategic Plan*, Watercare Services Limited, Auckland, December 2008 (available at www.watercare.co.nz, accessed March 2009).

33 Auckland Water Group, *Auckland Water Industry Annual Performance Review 2006/07*, p. 9.

34 *Ibid.*, p. 9.

35 *Ibid.*, p. 9.

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26.88 One of the most important challenges facing the Auckland water industry at present is identifying a second regional wastewater treatment facility. The average daily flow limits of the existing resource consents at the Mangere plant will be reached by about 2027. Even if the resource consents were extended, allowing for increased discharges, the Mangere Wastewater Treatment Plant is expected to reach its full capacity between 2050 and 2070.³⁶

26.89 One possibility for a second regional facility would be extending the Rosedale Wastewater Treatment Plant at Albany, which is owned by the North Shore City Council. It was recently upgraded to service around 225,000 people. If it were extended further, it could potentially service around 1.5 million people.³⁷

26.90 There are two other possible options (a western plant or a central plant), but these are both unproven possibilities and would be much more expensive even if they proved to be feasible. It has not yet been confirmed whether the site identified for the western plant is suitable for wastewater treatment, and no specific disposal site has been identified. In the case of the central plant option, no site for wastewater treatment has been found and no specific disposal site has been identified. There would also be major resource consent issues with both of these options.

26.91 Indicative costs for a Rosedale expansion and the two other potential options are³⁸

- Rosedale expansion \$290 million
- western plant \$460 million
- central plant \$620 million.³⁹

26.92 The Commission understands that while there would also be resource consent issues involved in extending the Rosedale plant, upgrading could be undertaken within current consent loads for nitrogen (the key constraint).

26.93 The Three Waters Final Strategic Plan concluded, after comprehensive investigation, that

In a fully regional context ... there do not appear to be any compelling reasons for not using Rosedale as a second regional facility, provided appropriate controls are put in place.⁴⁰

26.94 Nonetheless, the Commission understands that North Shore City Council is still requesting that further investigations be carried out to try and identify another site.

36 *Three Waters Final 2008 Strategic Plan*, Watercare Services Limited, p. 43.

37 Watercare Services Limited, *Information provided to the Royal Commission on Auckland's Governance*, 11 April 2008, p. 12.

38 Watercare Services Limited supplied these figures in response to a request from the Commission. The data relate to an initial treatment capacity for an extra 100,000 people at each of the plants – the costs are not directly comparable above that level.

39 This is a conservative estimate which assumes very favourable resource consent conditions.

40 *Three Waters Final 2008 Strategic Plan*, Watercare Services Limited, p. 48.

Stormwater

26.95 Stormwater is rain that runs off roofs, roads, and other impermeable surfaces. The Resource Management Act 1991 recognises stormwater as both a natural resource to be protected and a hazard to be managed carefully.⁴¹ Captured as drinking water, it is a valuable resource.

26.96 Generally, stormwater is channelled through the stormwater drainage system to outfalls in streams and on beaches – or, in areas with volcanic soils, to soak holes in the underlying rock.

26.97 Stormwater is not usually treated before it runs into the environment. Toxic pollutants from cars, as well as animal wastes, oils, and sediments, are mixed with the stormwater runoff. These substances pollute fresh and marine water environments and pose a public health risk. It is estimated that approximately 50% of stormwater contaminants are contributed by transport systems such as roads.⁴²

26.98 Population growth in the Auckland region has increased the total area of impervious surfaces. Impervious surfaces generate greater volumes and peak flows of stormwater. Where there is natural ground cover, only 10% of rainfall runs off the surface. In an urbanised environment, runoff volume can increase to as much as 95%.⁴³ Excessive stormwater flows result in

- increased flooding and overflows of untreated wastewater
- stream erosion and loss of aquatic habitat
- lower water quality and contamination of streams and coastal waters.

26.99 Each of the seven territorial authorities owns and operates its own stormwater assets, and each imposes different rules about issues such as the location of stormwater soak holes and permitted levels of impermeable surfaces.

26.100 Stormwater management and infrastructure is typically funded from rates income. This funding source has proved to be inadequate⁴⁴ and stormwater is still causing serious environmental problems across the region – stormwater runoff is often highly polluted, contaminating waterways. A 2004 report on Auckland’s stormwater observed,

Auckland’s stormwater problems have now reached a critical point. Contamination of the region’s harbours has been building over time, and has therefore escaped the attention of the Auckland community. However, the effects are difficult to reverse, and

41 Resource Management Act 1991, section 30.

42 PriceWaterhouseCoopers, Infrastructure Auckland, and the Auckland Region’s Territorial Authorities, *Funding Auckland Regional Stormwater: An Options Analysis*, Auckland, February 2004, pp. 7–8.

43 The Boston Consulting Group, Infrastructure Auckland, and Auckland Regional Council, *Auckland Regional Stormwater Project: An Action Plan to Deliver Improved Stormwater Outcomes*, Auckland, May 2004, p. 9.

44 *Ibid.*, p. 42.

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even maintaining current quality levels requires a significant increase in stormwater investment. Action needs to be taken now, to limit the levels of further degradation.⁴⁵

26.101 In 1992, the Auckland Regional Services Trust was established to manage regional assets such as the Ports of Auckland. In 1998, it was replaced by Infrastructure Auckland,⁴⁶ which was created with the objective of using funds from its investments to address Auckland's problems in relation to transport and stormwater.⁴⁷ It made available a \$150 million notional allocation for stormwater capital works, targeted at improving stormwater quality.⁴⁸ Territorial authorities were able to apply to Infrastructure Auckland for funding, and by May 2004, it had approved \$40 million in grants for stormwater management projects.⁴⁹

26.102 In February 2004, a PriceWaterhouseCoopers report highlighted the inadequacy of the remaining Infrastructure Auckland funds to address stormwater issues.⁵⁰ It recommended that Infrastructure Auckland should retain its holding of funds to leverage a larger capital fund. It also recommended implementing a charge on impervious surfaces, supplemented by an allocation of road user charges.⁵¹

26.103 In March 2004, Infrastructure Auckland engaged Boston Consulting Group to work with the ARC and the territorial authorities to develop a more effective way to use the remaining stormwater funds to address regional water quality issues.⁵² The report concluded that there would be insufficient funds to address these issues over the next 20 years, and placed a strong emphasis on the need for regional planning and leadership in this area.⁵³ It also recommended the implementation of targeted rates for stormwater, and suggested that the region should pursue additional funding sources for capital works. It suggested petrol taxes, emissions charges, or roading charges, because of the link between road runoff and stormwater contamination.⁵⁴

45 PriceWaterhouseCoopers, Infrastructure Auckland and the Auckland Region's Territorial Authorities, *Funding Auckland Regional Stormwater: An Options Analysis*, p. 52.

46 Infrastructure Auckland was created on 1 October 1998. It performed two distinct functions: first, it managed the region's investments in Ports of Auckland Ltd, America's Cup Village Limited, Northern Disposal Systems Ltd and its Treasury Fund; and second, it funded infrastructure projects in the region by way of grants generated through its revenue and capital base – although it was required to use income in preference to capital.

47 PriceWaterhouseCoopers, Infrastructure Auckland and the Auckland Region's Territorial Authorities, *Funding Auckland Regional Stormwater: An Options Analysis*, p. 18.

48 Ibid., p. 46.

49 The Boston Consulting Group, Infrastructure Auckland and Auckland Regional Council, *Auckland Regional Stormwater Project: An Action Plan to Deliver Improved Stormwater Outcomes*, p. 7.

50 PriceWaterhouseCoopers, Infrastructure Auckland and the Auckland Region's Territorial Authorities, *Funding Auckland Regional Stormwater: An Options Analysis*, pp. 49–50.

51 Ibid., p. 49.

52 The Boston Consulting Group, Infrastructure Auckland and Auckland Regional Council, *Auckland Regional Stormwater Project: An Action Plan to Deliver Improved Stormwater Outcomes*, Auckland, May 2004.

53 Ibid., Executive Summary pp. 3–6.

54 Ibid., p. 41.

26.104 Currently, issues relating to stormwater funding are still largely unresolved, and the Commission understands that at least some of the Infrastructure Auckland funds earmarked for stormwater issues were not used for that purpose. In some areas, such as Auckland City, major investment is required.

26.105 Stormwater is also an area in which close cooperation is needed between industry participants. For example, Metrowater is currently separating many of the combined wastewater/stormwater pipes in Auckland City into dedicated stormwater and wastewater systems. Keeping stormwater out of the wastewater system will reduce the number of wastewater overflows.

26.106 However, because all the pipes form part of one interconnected network such changes need to be managed carefully. Watercare needs, and has planned for, a certain amount of stormwater to dilute the wastewater it receives at the Mangere Wastewater Treatment Plant. (Also, the high level of toxic pollutants in some stormwater – particularly runoff from major roads – means that it is inappropriate for it to be flushed into natural waterways and out to sea without being treated first.)

26.107 In some cases, a more cost-effective solution to the problem of wastewater overflows is not separation of the wastewater and stormwater networks, but increasing the overall holding capacity of the system so that it does not overflow during high rainfall events. Investing in off-site holding facilities for wastewater and stormwater would enable more efficient use of the Mangere Wastewater Treatment Plant by giving greater control over its throughput at any given time. It would even out the peaks and troughs, but increase the overall average. This illustrates the importance of managing the system as a regional network.

26.108 One facility that will contribute to the holding capacity of the network is already under construction at Hobson Bay. During the design of this project, Watercare concluded that a 3.4 m diameter tunnel would be sufficient to meet regional overflow guidelines. However, through joint planning with Metrowater it was identified that building a larger, 3.7 m diameter tunnel would provide cost savings to the region of approximately \$35 million, because the additional cost of the larger tunnel would be more than offset by reductions in expenditure required by Metrowater/Auckland City in relation to sewer separation.⁵⁵ This is an example of successful voluntary industry cooperation.

26.109 Another, larger project for the construction of a “central interceptor” holding facility with significant capacity has been agreed to, in principle, by all industry participants. The more difficult issue of its funding (which will exceed \$1 billion) is unresolved, however, highlighting the limitations of voluntary cooperation as a means of decision making.

26.110 The governance of stormwater systems is fairly complex. On the one hand, stormwater forms part of the overall water cycle and needs to be considered together

55 The capital investment required would be reduced in respect of sewer separation works, inflow and infiltration reduction works, local wastewater storage facilities, and stormwater infrastructure upgrades.

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with drinking water and wastewater. (In some cases, stormwater and wastewater even flow through the same pipes, mixed together.)

26.111 On the other hand, in many cases stormwater issues such as flooding and erosion are highly localised, and stormwater management is linked closely with open space management and land use. The submission from Rodney District Council said,

Stormwater has different characteristics from those of water supply and wastewater. Typically it is closely connected to land use and development, is handled through a mixture of piped networks and open channels and there is greater public interface. Spending and capital projects tend to be discretionary also.

Because of the link to land use and development, meaning that stormwater problems can be improved or worsened by land use decisions, and because flooding issues are mostly highly localized, we consider that stormwater should continue to be the responsibility of territorial authorities.⁵⁶

Investment in infrastructure and demand management

Relationship between demand management and infrastructure costs

26.112 Most of the costs of water supply and disposal are tied up in infrastructure networks. Building new pipes, dams, and treatment plants may meet demand, but this can also have lasting negative effects on the environment. It also involves significant cost.

26.113 International priorities in water management planning are shifting from managing supply to managing demand and catchment management planning. The change in approach recognises that existing resources need to be better managed, with more efficient use of resources and less waste.

Auckland's water use

26.114 In New Zealand's climate, we need a mere two litres of drinking water each day to keep us alive and healthy.⁵⁷ In Auckland we have water networks that deliver, on average, over 300 litres per person per day of potable water (see Figure 26.1). This usage is fairly moderate by international standards,⁵⁸ but there is room for further reduction.

26.115 In the late 1980s and early 1990s, per capita water consumption dropped. This occurred as a result of drought, the relocation of high water users such as meat works and other manufacturing industry outside the Auckland region, and the introduction of universal metering/volumetric charging. Since that time, overall water consumption per person has been relatively stable.

56 Submission to the Royal Commission on Auckland Governance from Rodney District Council, p. 19. (All submissions are available at www.royalcommission.govt.nz.)

57 Office of the Parliamentary Commissioner for the Environment, *Ageing Pipes and Murky Waters: Urban water system issues for the 21st century*, Wellington, June 2000, p. iii (summary available at www.pce.govt.nz).

58 *Three Waters Final 2008 Strategic Plan*, Watercare Services Limited, p. 50.

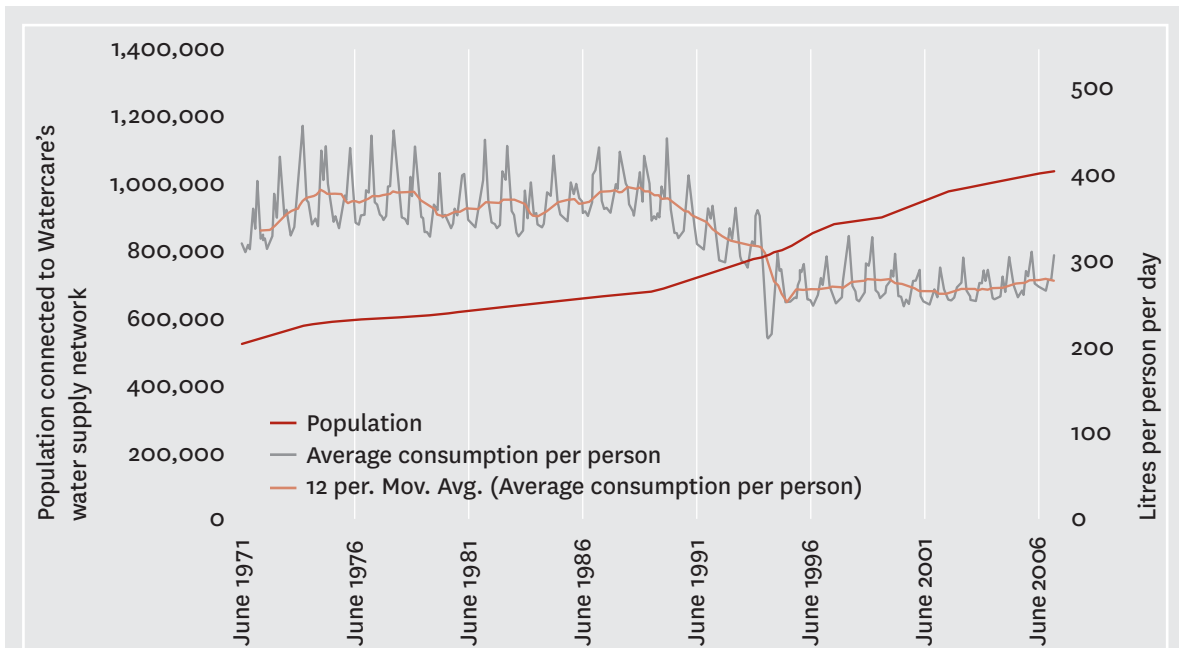


Figure 26.1 Population and average gross consumption of water per person per day

Source: Auckland Water Industry Annual Performance Review 2006/2007.

Demand management tools

26.116 In the Auckland region water is metered, and the charges customers pay for reticulated water are based on the amount of water actually consumed. This is one way of encouraging consumers to be mindful of the amount of water they use. According to a report of the Parliamentary Commissioner for the Environment, “there is substantial evidence that metering leads to a marked and sustained reduction in both peak demand and annual usage. Typically in New Zealand, reductions in annual use following the introduction of metering are at least 15% as demonstrated by Auckland City Council and Tasman District Council.”⁵⁹ Where metering and volumetric charges have been introduced both within New Zealand and elsewhere, peak demand has been reduced consistently by between 20% and 40%.⁶⁰

26.117 Besides metering and flow-based charging, there are a number of other methods of managing demand including

- water audits for large users

⁵⁹ Office of the Parliamentary Commissioner for the Environment, *Ageing Pipes and Murky Waters: Urban water system issues for the 21st century*, p. 25.

⁶⁰ New Zealand Water & Wastes Association, “Managing domestic water demand – the case for metering and volumetric charging”, media release, 22 December 2008, p. 1 (available at www.nzwwa.org.nz/comment_and_submissions.html#mediareleases, accessed March 2009).

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- reducing leakage
- managing water pressure
- encouraging conservation through communication and education
- using rainwater tanks and/or locally treated wastewater, especially for non-drinking water purposes such as toilet flushing or garden watering
- using surface runoff and grey water for irrigation
- using treated wastewater for certain industrial uses
- promotion of efficient appliances and systems
- pricing mechanisms such as block tariffs and volumetric charging for wastewater, as well as water.

26.118 International trends favour more stringent building regulations to help reduce water demand in the home. For example in Australia, Victoria was the first state to implement a national efficiency standard (the 5 Star Standard) in its building regulations.⁶¹ Since July 2005, all new houses and apartments in Victoria have had to meet the 5 Star Standard energy efficiency and water management requirements. The 5 Star Standard requires

- 5 Star energy efficiency for the building fabric
- water-efficient taps and fittings
- either a rainwater tank for toilet flushing or a solar hot water system.⁶²

26.119 From 1 May 2008, the 5 Star Standard was extended to apply to all relocated homes and alterations to existing homes.⁶³ (Only partial compliance is required for some smaller-scale renovations.)

26.120 According to the Victorian Building Commission, residents who install a rainwater tank use 20% less reticulated drinking water.⁶⁴ The use of rainwater tanks also reduces the volume of stormwater runoff from roofs.

Current demand management initiatives

26.121 The 2004 Auckland Water Management Plan “From the Sky to the Sea”, (a joint initiative by Watercare, the ARC and the six local network operators), set out an agreed approach to water efficiency for the region.⁶⁵ This is not proving successful. The objective

61 What you need to know about – 5 Star for new houses, home renovations and relocations, Building Commission, Victoria, Australia, March 2008, p. 2 (available at www.buildingcommission.com.au, accessed March 2009).

62 Ibid., p. 3.

63 Ibid., p. 3.

64 Ibid., p. 3.

65 *From the Sky to the Sea*, Auckland Water Management Plan by the region’s water authorities, Auckland, 2004, p. 12 (available at www.watercare.co.nz, accessed March 2009).

was to reduce per capita water demand by 5% over 20 years. A review of the Plan was carried out in late 2006, and showed that per capita consumption had increased slightly, not decreased.⁶⁶

26.122 Watercare’s strategic performance objectives, set out in its statement of intent, require it to promote conservation of the region’s water resources.⁶⁷

26.123 As discussed in paragraphs 26.79–26.81, the Three Waters Final Strategic Plan, published in December 2008, proposes

- (a) a per person demand reduction of 15% of 2004 levels by 2025
- (b) meeting 10% of total demand by using treated wastewater and stormwater.

26.124 Regional priorities for demand management include the completion of a household study on residential water use, continued leakage reduction, initiatives for industrial water efficiency, formulation of pricing strategies that would reduce waste, and promotion of water-efficient appliances and systems.⁶⁸

Potential cost-savings

26.125 One of the largest potential efficiency gains to be realised in the Auckland water services industry is through demand reduction, leading to a slower rate of investment in new major capital expenditure. If the Auckland region were able to achieve 15% reduction in water demand and 10% beneficial use of stormwater and treated wastewater by 2025 as proposed in the Three Waters plan, the next major upgrade of the Waikato River source (requiring full duplication of the existing system including a new intake and raw water main, a new treatment plant, and a new treated water pumping station and pipeline into Auckland costing about \$300 million) could be postponed from 2026 to around 2046. (See Figure 26.2.)

Effect of integration

26.126 A crucial issue for the Commission to determine is whether it would be easier to monitor and regulate demand if water services planning and delivery were undertaken by a single entity (this is discussed further under the heading “Integration”).

26.127 There are differing views on this. For example, the Commission received a well-researched submission from Waitakere City Council opposing vertical integration of the water industry on the basis that (amongst other things) it would work against demand

66 *Three Waters Final 2008 Strategic Plan*, Watercare Services Limited, p. 55.

67 Watercare Services Limited, *Statement of Corporate Intent for the three year period commencing 1 July 2008*, Auckland, 2008, p. 4, (available at www.watercare.co.nz, accessed February 2009).

68 The agreed regional priorities are set out in Watercare’s December 2008 Asset Management Plan, p. 25 (available at www.watercare.co.nz, accessed March 2009).

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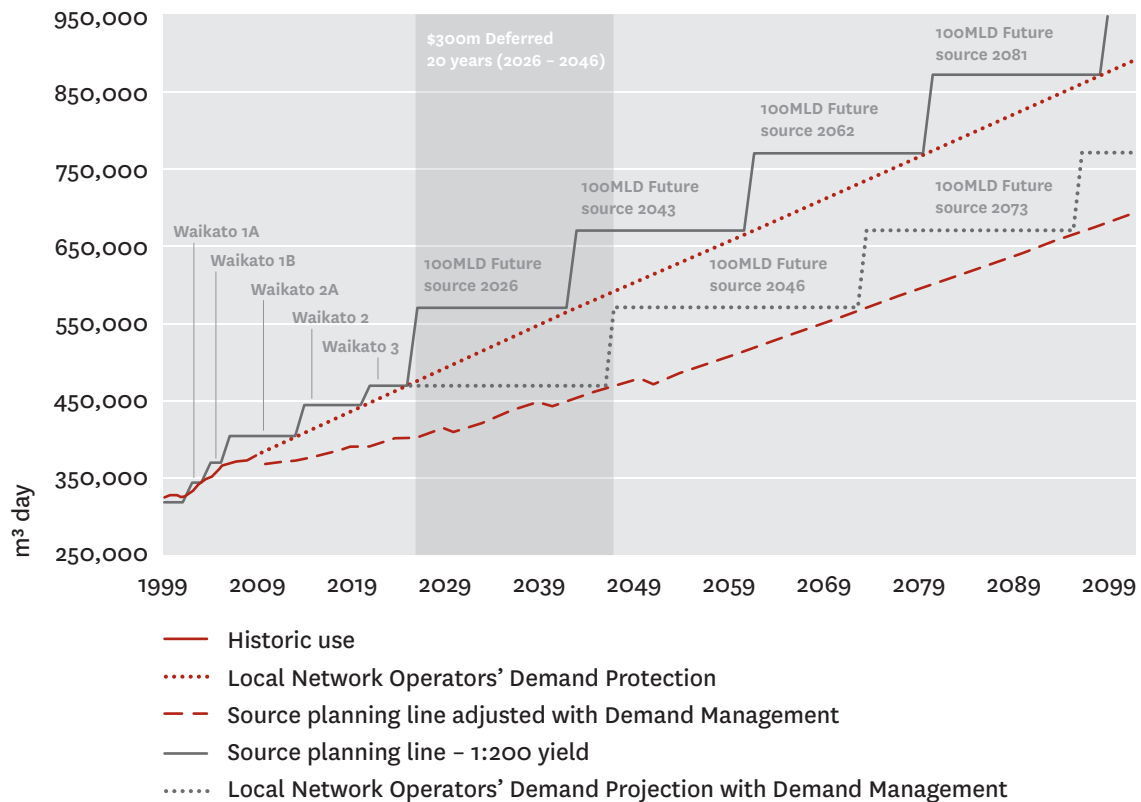


Figure 26.2 Water demand table

Source: Watercare Services Limited.

management.⁶⁹ The submission identified two paradigms of water management that are prevalent worldwide:

- **Predict and provide:** This has been the dominant model over the past 100 years in an environment where supply was relatively unconstrained. It is based on projecting demand by looking at past trends and lifestyles, and building capacity to deliver to that projected demand. This model leads to large-scale, capital-intensive infrastructure solutions.
- **Sustainable use:** This model is based on understanding the ecology of water resources as complex systems with multiple sources, multiple demands, multiple impacts and constraints. This model tends to lead to smaller-scale, locally sensitive responses to both the supply and demand of water consumption. It is the underlying paradigm informing integrated water resource management (“IWRM”).⁷⁰

69 Submission to the Royal Commission on Auckland Governance from Waitakere City Council, p. 29. This submission is discussed further in paragraphs 26.151–26.155.

70 Integrated water resource management was adopted as best practice in 1992 by the United Nations Conference on the Environment in Rio de Janeiro and has been re-endorsed by every international UN conference on water since then (information supplied to the Royal Commission by Waitakere City Council).

26.128 The Commission needs to ensure the governance structures for Auckland’s water services industry reinforce and support the paradigm shift away from “predict and provide” to “sustainable use”.

26.129 Some people consider that it would be easier for a single, regional body to manage the water cycle sustainably, treating it as one interconnected network and promoting demand management consistently across the region. The Commission agrees with this view.

Pricing

26.130 Water and wastewater affordability for households is an indicator which is increasingly being examined internationally.⁷¹ In the Auckland region, the average annual residential water and wastewater bill of \$670 represents 0.8% of the total average household income before tax.

26.131 In real terms, water and wastewater charges have remained fairly constant in recent times. In fact, from 1999 to 2006/07 there was an effective (real) price decrease of 8% across the region. The Consumers Price Index increase from 1999 to 2006/07 was 18.7% and the cost increase in the weighted average standard residential water and wastewater bill was 10.7% over the same period.⁷² (See Figure 26.3.)

26.132 Water prices are now increasing in real terms, however, as a result of ongoing increases in the cost of planned maintenance, chemicals, energy, capital expenditure, and the cost of providing for growth in the Auckland region. Future water and wastewater costs are expected to exceed the rate of inflation.⁷³

26.133 Water is an essential service, which must be made available to all residents in the Auckland region regardless of income. Water affordability will need to be monitored closely no matter what sort of governance structures are implemented.⁷⁴

71 Water affordability is used as a key indicator for sustainable development in the United Kingdom.

72 Auckland Water Group, *Auckland Water Industry Annual Performance Review 2006/07*, p. 37 (available at www.aucklandcity.govt.nz/council/documents/awireview, accessed February 2009).

73 Watercare Services Limited, *Annual Report 2008*, p. 55 (available from www.watercare.co.nz, accessed February 2009).

74 In its statement of intent July 2008 to June 2011 at p. 5, Metrowater has an annually monitored target that a household water bill remains less than 2% of average household income (see www.metrowater.co.nz).

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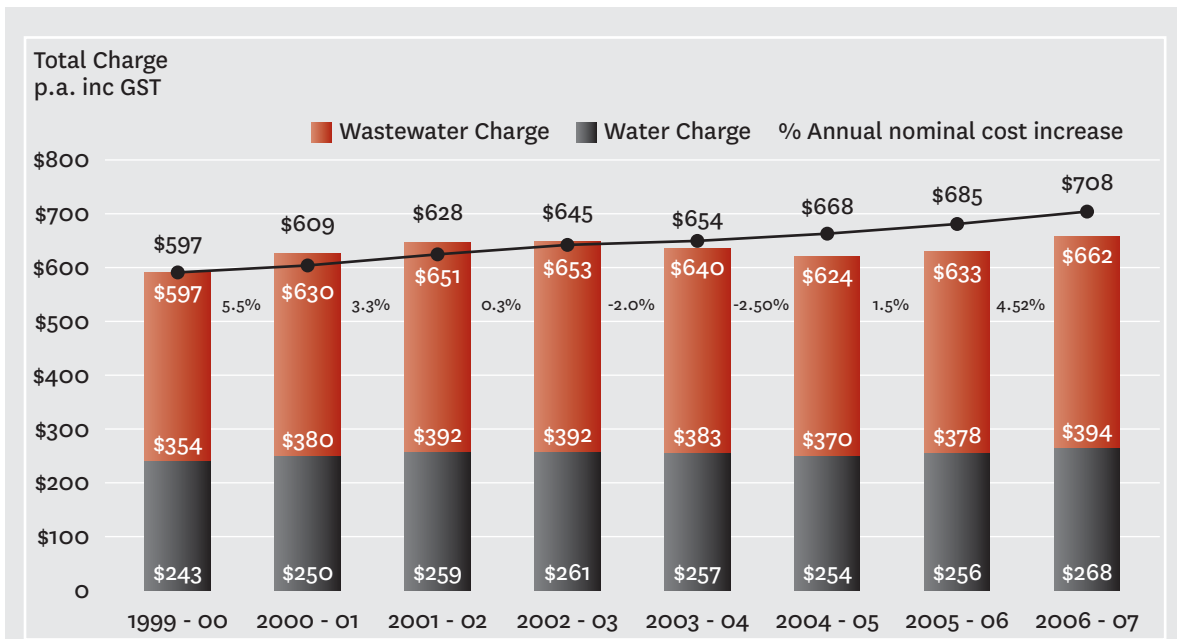


Figure 26.3 Weighted average costs for standard residential users of water and wastewater

Source: Auckland Water Industry Annual Performance Review 2006/2007 (prepared by North Shore City Council).

Māori issues

26.134 Māori have always valued water for practical purposes such as drinking, mahinga kai,⁷⁵ transportation, and irrigation.⁷⁶ Water is also a tāonga⁷⁷ and is central in ritual and healing processes.⁷⁸

26.135 Māori distinguish between seven different categories of water. In the context of claims before the Waitangi Tribunal, and other environmental management cases, the mixing together of different types of water has been a major concern. Practices such as diverting and combining waters from different sources or catchments, or discharging water that contains or has contained human, animal, toxic or industrial wastes into another body of water, both degrade and damage the mauri⁷⁹ of the water, and are offensive to Māori.⁸⁰ Māori believe that waters containing wastes and pollutants should be discharged onto the land for proper purification by Papatūānuku.⁸¹

75 Mahinga kai – places where food and other resources are traditionally gathered.

76 Office of the Parliamentary Commissioner for the Environment, *Ageing Pipes and Murky Waters: Urban water system issues for the 21st century*, p. 11.

77 Tāonga – valued resources, assets, prized possessions both material and non-material.

78 Office of the Parliamentary Commissioner for the Environment, *Ageing Pipes and Murky Waters: Urban water system issues for the 21st century*, p. 11.

79 Mauri – essential life force, the spiritual power and distinctiveness of each person and object.

80 Office of the Parliamentary Commissioner for the Environment, *Ageing Pipes and Murky Waters: Urban water system issues for the 21st century*, p. 11.

81 Papatūānuku – the ancestral elemental Mother, the earth, the land.

26.136 As noted above, Watercare has a Māori Advisory Group, which was established to provide independent advice to Watercare’s management on activities that affect mana whenua. The Māori Advisory Group consists of individuals who meet the following criteria:

- iwi⁸² affiliation within the Watercare operational area
- knowledge of tikanga Māori⁸³
- knowledge of Resource Management Act processes
- knowledge of water-related issues
- knowledge of their geographical area.

26.137 Currently, the Māori Advisory Group comprises representatives from Ngāti Whātua, Ngāti Pāoa, and Tainui.

26.138 The Commission received at least one comment expressing the view that while it is positive that this advisory group has been established, it needs to be strengthened to ensure Māori concerns are given appropriate consideration. The Commission agrees with this view, as discussed in paragraphs 26.208–26.210.

Environmental issues

26.139 Some of Auckland’s most valuable assets are its beautiful harbours, beaches, rivers, and streams. Aucklanders value being able to swim, play, fish, and collect food in and around our waterways. Clearly, it is incumbent on the citizens and leaders of the region to maintain and enhance its environmental integrity for the future.

26.140 Discharges and overflows from wastewater systems, and polluted stormwater entering waterways, all have adverse environmental effects on Auckland’s water system.

26.141 Climate change may worsen the situation. High rainfall events put pressure on stormwater systems, causing flooding and erosion.⁸⁴ They also cause stormwater and groundwater to infiltrate wastewater systems, resulting in overflows. Drought has obvious negative impacts. In addition, there is a strong relationship between air temperature and demand for water.⁸⁵

26.142 The ARC controls the discharge of contaminants into water through the issue of resource consents. It also undertakes investigations and monitoring of the impact of stormwater quality in the Auckland region, and undertakes a programme of monitoring coastal receiving waters in Auckland urban areas. As discussed in paragraph 26.100,

82 Iwi – tribal grouping.

83 Tikanga Māori – customary correct way of doing things, traditions.

84 *Three Waters Draft Strategic Plan Discussion Version*, Watercare Services Limited, p. 21. Work undertaken by North Shore City Council suggests a wet weather wastewater overflow occurring once a year at present could occur twice as often in the future.

85 *Ibid.*, p. 21.

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the effects of contamination of the region's harbours are now difficult to reverse, and even maintaining current quality levels will require a significant increase in stormwater investment.

26.143 The Commission understands that the Government is proposing to expand the existing Environmental Risk Management Authority into an environmental protection agency with increased responsibilities, including developing national policy statements and national environmental standards.

Integration

26.144 The Commission received a number of submissions suggesting that all water services in the Auckland region should be delivered by one, fully integrated regional entity. The reasons given included gaining operating cost savings through efficiency and economies of scale, better decision making, consistency of standards for design and construction (for example, a single software application to model all networks), and ability to focus on the bigger issues such as demand management.

26.145 In the Commission's view, the industry should be integrated if that would lead to appropriate environmental management, better demand management, and cost savings. These three considerations were the main focus of the Commission's inquiry.

26.146 As noted above, the Cap Gemini Ernst & Young report "Reducing Costs by Amalgamation" (2000) concluded that integration would lead to annual cost savings of around \$9.9 million.⁸⁶

26.147 Some of these cost savings would be in relation to operating expenditure, for example reducing duplication in areas such as billing, geographical information systems, call centres, and management structures.

26.148 However, the most significant cost savings would be likely to arise in relation to capital expenditure, not operating expenditure. If a single entity controlled the entire network, it could plan much of its capital expenditure more effectively. For example, if the bulk water supplier were also responsible for the relationship with customers and had direct control over the various factors which impact on water demand, it would be in a better position to plan and predict future water requirements and the capital expenditure required.⁸⁷

26.149 The most obvious disadvantage of integration is that it would concentrate monopoly power.

26.150 Of course, even under the current regime, most users do not have the option of switching between water service providers – each local network operator has an effective

86 Cap Gemini Ernst & Young, *Reducing costs by amalgamation*, report for Auckland Water Steering Group, p. 5.

87 Ibid., p. 67. The Cap Gemini Ernst Young report reinforced the benefits of unified asset and investment planning to optimise savings on capital expenditure.

monopoly within the particular part of the Auckland region it services. Although it is possible (to some extent) to compare and contrast the performance of the different local network operators, it is unlikely their effective monopoly status affects pricing.

26.151 The Commission received a detailed submission from Waitakere City Council, which suggested a number of other potential disadvantages arising from vertical integration.⁸⁸ These included

- claims of cost efficiency through vertical integration are mostly unsubstantiated with savings unlikely to be achieved – increased efficiency in administration and maintenance functions is not guaranteed
- the vertical integration of water would result in a loss of market tension between the wholesale provider and retailers (although the Commission notes that whether this tension has a competitive effect is questionable)
- a larger, more centralised entity would be more distant from local democratic control, resulting in a loss of community focus and engagement – large entities with a single focus do not have the culture, competencies, or closeness to achieve conservation-focused demand management
- a larger, more centralised entity would be more likely to implement capital-intensive solutions, rather than small-scale, diverse, and community-based solutions that follow best international practice for sustainability (IWRM, described below)
- vertical integration is unlikely to address the key issues associated with land use planning and stormwater management (although the Commission observes that neither do present arrangements).

26.152 The Commission does not accept the view of the Waitakere City Council for reasons set out in other parts of this chapter. The Commission has given particular consideration to the assertion that integration would hinder the adoption of IWRM, which is regarded internationally as representing best practice for the industry, particularly from an environmental perspective. There are suggestions in the literature that IWRM requires a decentralised approach:

IWRM ... also seeks to introduce an element of decentralised democracy into how water is managed, with its emphasis on stakeholder participation and decision making at the lowest appropriate level.⁸⁹

26.153 However, there is no specific IWRM blueprint or model – rather, it is a system to be tailored to particular circumstances. It could be implemented at a regional level, and there may be benefits in doing so. A regional body with responsibilities across all

88 “Vertical Integration: Three Waters and Sustainable Catchment Management”, information supplied to the Royal Commission on Auckland Governance by Waitakere City Council, April 2008, pp. 4-5.

89 See Integrated Water Resource Management website at www.archive.cap-net.org (accessed March 2009).

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the three waters is well placed to take a broader, holistic view of the “water cycle” as an interconnected system.

26.154 The Parliamentary Commissioner for the Environment has commented that one of the specific environmental issues that needs to be addressed in relation to New Zealand’s urban water systems is

the lack of integrated management of catchments, wastewater and stormwater, eg total water cycle planning and integrated water supply, wastewater and stormwater.⁹⁰

26.155 He went on to say,

Successful long-term management of the urban water system will require integrated management of water services ... Solutions are needed to support more efficient resource use and to recognise the important linkages between the different water service components of water supply, treatment, use, and disposal of wastewater and stormwater. The water service supply and disposal components cannot be considered as separate entities and split like the electricity and gas generation, distribution and retail networks if the services are to be ecologically and economically robust and socially just.⁹¹

Proposed organisational structure

26.156 Some submitters suggested that in order to ensure the greatest possible accountability, the regional tier of council (that is, as proposed, the elected Auckland Council) should take direct responsibility for supplying water services in the Auckland region rather than employing a CO or CCO structure.

26.157 On the other hand, some submitters suggested that a CO or CCO structure would lead to better decision making in a “long-term” industry such as the water services industry, especially in relation to decisions about investment in infrastructure. It was suggested that these decisions need to be taken at some distance from the political whims of the day; the short electoral term means that there is a fairly constant “churn” of elected representatives.

26.158 One option would be for Watercare to expand its operations, and to provide retail water services as well as bulk water and wastewater services across the region. A number of submitters indicated that they thought Watercare was functioning well.

- [Watercare has] a record of achieving sustainable development and a robust system of accountability in the form of quadruple bottom line reporting to stakeholders.⁹²

90 Office of the Parliamentary Commissioner for the Environment, *Ageing Pipes and Murky Waters: Urban water system issues for the 21st century*, p. 18.

91 Ibid., p. 31.

92 Submission to the Royal Commission on Auckland Governance from the Property Council New Zealand, p. 56.

- Watercare delivers required outcomes efficiently and is considered to be one of the more effective of the Auckland entities ... However, it is difficult to measure cost effectiveness.⁹³

26.159 However, if Watercare were to provide retail water services as well as its current services this would involve a major “scaling up” of its operations. At the moment, it supplies bulk water to six customers and has around 600 trade waste customers. There would be significant organisational changes required for Watercare to provide retail water and wastewater services to hundreds of thousands of customers across the Auckland region.

Performance oversight

26.160 Some industry reports have suggested that if the water services industry were to be integrated, an independent regulatory body should also be established to offset the concentration of monopoly power.⁹⁴

26.161 It has been suggested that regulation would be truly effective only if an informed regulatory body had price-setting or price-capping powers, rather than merely advisory powers.⁹⁵

26.162 One disadvantage of a price-based system of regulation, however, is that it can sometimes remove the incentive for suppliers to invest in maintaining and improving infrastructure. Suppliers may try to keep costs as low possible by cutting corners in areas such as customer service and maintenance. Another disadvantage is that if a price cap is imposed, actual pricing can often tend to match or closely approach that cap, regardless of other market factors. It would also be very difficult for the independent regulator to set or adjust prices appropriately in the absence of any direct comparators.

26.163 Another possible form of regulation is a rate-of-return model, in which the prices charged are based on the actual costs incurred, plus a certain profit margin or rate of return.

26.164 The advantage of this model is that it does not encourage suppliers to skim on areas such as the quality of service provided or investment in infrastructure. On the other hand, it may encourage suppliers to move too far in the other direction, as it

93 Submission to the Royal Commission on Auckland Governance from the Employers and Manufacturers Association (Northern), Appendix 5.

94 The “Final Report of the review by LEK Partnership and Northington Partners Report on the Structure of the Auckland Water Industry” (1995) recommended regulation should be based on a “light handed” approach with implementation through a review by the Ministry of Commerce involving an “expert auditor” to assess performance and fair customer contracts to cover service standards and delivery. The CS First Boston Report (1995) recommended any market power problems caused by monopolisation should be regulated through a light-handed regulatory regime relying on the Commerce Act and information disclosure requirements.

95 The options for regulation are set out in the findings and recommendations to councils arising from the *Auckland Region Water, Wastewater and Stormwater Review*, March 2002, p. 29.

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does not reward efforts to improve efficiency. Infrastructure managers are more likely to face adverse consequences from service failure than from substantial cost overruns (the causes of which are less apparent). This can result in utilities “gold-plating” their systems.⁹⁶

26.165 A third possible model is a “light-handed” approach based on, for example,

- the establishment of a region-wide customer service charter
- performance monitoring through a rigorous statement of corporate intent
- mandatory disclosure of certain information, such as asset management plans, leakage rates, and response times to customer queries and complaints (the type of information currently published voluntarily in the annual Auckland Water Industry Annual Performance Review)
- the establishment of an independent Auckland Services Performance Auditor, with responsibility for monitoring the performance of the industry and providing information to the public and other interested parties.

26.166 There are also international benchmarking models which can help assess performance. Watercare has adopted an annual benchmarking framework developed by the Water Services Association of Australia, which compares four aspects of the business (civil maintenance, mechanical and electrical maintenance, customer service, and asset management processes) on a four-yearly rotation. Watercare’s statement of corporate intent requires it to achieve upper quartile ranking against its peers through this benchmarking process, which it has achieved.

26.167 In 2008, the Water Services Association of Australia combined with the International Water Association in benchmarking water companies not just in Australia and New Zealand, but also the United States, Singapore, Hong Kong, and the Middle East. The Commission was advised that interim results demonstrate that Watercare’s performance place it in the top 10% of companies benchmarked for its approach to the forward planning, acquisition, operation, maintenance and replacement, and rehabilitation of assets.

26.168 One example of a highly regulated water industry is in Britain, where the water market is fully privatised. The regulatory body, the Office of Water Services, compares and contrasts the results of different water companies, and requires poorly performing suppliers to do better. In addition, large water customers (users of more than 50 million litres per year) have the option of choosing their water supplier from a range of companies.

96 National Economic Research Associates, *Rationalisation Options Study: A Report for Auckland City and Metrowater*, Sydney, December 2003, p. 9.

Commission's views

Integration of drinking water and wastewater services

26.169 The Commission considers that it is essential to have an integrated approach to planning and investment in infrastructure at the regional level. Accordingly, it considers that the Auckland Council should have overall responsibility for setting policy relating to the three waters. The Auckland Council will be well placed to take an overview of how land use, transport, and other interventions impact on the three waters.

26.170 The Commission considers that (subject to certain limited exceptions⁹⁷) all water and wastewater services in the region should be provided by a single council-controlled organisation owned by the Auckland Council.

26.171 The Commission believes that these arrangements will lead to better demand management, better environmental management, and cost savings.

Demand management

26.172 The Parliamentary Commissioner for the Environment has identified the current fragmentation of the industry as an impediment to demand management:

Where there is a wholesaler/retailer split in water services as in Auckland, the absence of a requirement to undertake demand management at both regional and territorial level means that demand management can be given a lower priority except in times of drought. This represents a lost opportunity to increase the overall efficiency of the water system.⁹⁸

26.173 Certainly, demand management initiatives are not proving to be successful under the current fragmented industry structure. Leaving demand management in the hands of retailers, be they independent commercial entities (such as United Water), CCOs (such as Metrowater), or local authorities themselves – all of which benefit from the profits of water supply – creates conflict between the application of demand management tools and the desire to maximise profits.

26.174 The Commission believes that if a single entity were responsible for the supply of both bulk and retail water and wastewater services, demand management targets are much more likely to be achieved. One reason for this is that capital works relating to water supply and disposal will be funded by the same entity that sells the water and disposes of it, so there will be financial incentives to keep demand within steady, planned parameters.

⁹⁷ The Auckland Council will decide whether the CCO will service rural areas such as the Franklin and Rodney Districts (see paragraph 26.181). Also, Papakura District Council has entered into a long-term contract with a private water services company (United Water) and that agreement will remain in place (see paragraphs 26.44–26.47 and 26.189–26.190).

⁹⁸ Office of the Parliamentary Commissioner for the Environment, *Ageing Pipes and Murky Waters: Urban water system issues for the 21st century*, p. 32.

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26.175 In light of the importance of demand management, and the financial and environmental implications it has for the region, the Commission recommends that the region's water services provider should be required by legislation to promote demand management.

Environmental management

26.176 Better demand management will, in itself, have positive environmental effects. These include a reduced water take, reduced use of electricity for pumping water, reduced use of chemicals for treating water, less construction of capital works such as dams, and less wastewater to be treated and discharged into the environment.

26.177 In making Watercare a part of the Auckland Council, it is necessary to ensure that environmental concerns are properly addressed. There will be a separate committee and cost centre to deal with regulatory issues. It will be important, as well, that there be a code of conduct advising councillors on the appropriate limits of interference with the regulatory role of the Auckland Council. Additionally, in this instance there will be separation between Watercare as a CCO and the environmental regulatory functions of the Auckland Council.

26.178 The Commission considers that Watercare's Environmental Advisory Group should remain in place.

Cost savings

26.179 The Commission also expects that integration will give rise to efficiencies. Better demand management will lead to opportunities to defer investment in infrastructure, and integrated planning in relation to infrastructure investment will result in available capital being applied in the most effective manner.

26.180 Duplication in management structures, billing, asset management and network control systems, call centres, and information and communication technologies systems will also be eliminated. Operating efficiencies will be gained through integrated master planning, and shared services (with Auckland Council) and purchasing.⁹⁹

Franklin and Rodney Districts

26.181 The Commission considers that the Auckland Council should decide whether the more rural areas of Franklin and Rodney should be included in the regional arrangements – that is, whether, or to what extent, homes and businesses in those areas should have their water and wastewater services provided by Watercare.

99 The potential efficiencies are set out in Chapter 32, "Achieving a High-Performance Council", and the Taylor Daignan Barry financial report, *Financial Analysis: Re-organisation of the Councils in the Auckland Region* (appended as Appendix B, pp. 746–776).

Corporate structure

26.182 The Commission considers that the region’s water and wastewater service provider should be operated as a CCO, with expert directors. The Auckland Council should make decisions on policy objectives and provide strategic direction.

26.183 The water industry involves long-term planning and investment decisions. These decisions should be made by Watercare’s board within the overall policy and financial framework adopted by the Auckland Council.

Watercare Services Limited

26.184 The Commission considers that Watercare is the obvious choice as a vehicle to provide water and wastewater services to the Auckland region. Watercare already has regional functions and appears to be operating well under current arrangements.

26.185 The Commission recommends that Watercare should continue to control the regional dams, weirs, bulk water and wastewater reticulation and treatment systems. Subject to any exceptions determined by the Auckland Council, Watercare should have new statutory rights to control all water assets and operations,¹⁰⁰ wastewater assets and operations,¹⁰¹ and retail assets and functions within the Auckland region.¹⁰² Inevitably, it will also have some responsibility for stormwater given that many of the wastewater pipes in Auckland City also carry stormwater.

26.186 In common with all other asset transfers, no question of payment will arise (see Chapter 20, “Funding and Financial Management Arrangements”).

Scaling up

26.187 In order for Watercare to take over the supply of retail water services in addition to its current operations, significant changes will be required. At present, it has only a few, large customers (the six water retailers and some trade waste customers). Under the proposed arrangements this would increase to hundreds of thousands of customers across the region with the related complexity of managing customer enquiries, metering, billing, collections, and communication.

26.188 The requisite scaling up will be a complex task, which is likely to involve a transition period of at least 12 months. This is an area that will require close attention by the Establishment Board (see Chapter 33, “Managing the Transition”). The Commission envisages that the Establishment Board will take an oversight role in relation to the integration of retail water suppliers into Watercare, providing such assistance as

100 Including pump stations, reservoirs, transmission mains, and “small bore” distribution network, telemetry systems and meters.

101 Including collection and storage assets, reticulation systems, trade waste regulation and management, and wastewater treatment plants at Rosedale, Army Bay, and Kawakawa Bay.

102 Including appropriate information and communications technology systems, billing systems, metering systems, and call centres.

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necessary to the Watercare Board and chief executive through the Transition Management Group (see Chapter 33, paragraph 33.55).

Relationship with United Water

26.189 The Commission received a submission from Papakura District Council noting that any transition to an integrated provider would require careful negotiation with existing suppliers. Naturally, this issue is of particular importance in Papakura because in 1997 the Papakura District Council entered into a 30-year contract with a private water company, United Water. This contract includes a 20-year right of renewal.

26.190 The Commission expects that, for the time being at least, the long-term contractual arrangements entered into between United Water and Papakura District Council will remain in place. It will be a matter of commercial negotiation between Watercare and United Water whether Watercare will take over retail water services in Papakura District before the end of United Water's contractual term.

Ownership and governance of Watercare

26.191 Currently, Watercare is owned by six territorial authorities in various shares. As noted above, the Commission recommends that in future it should be owned by the Auckland Council and operated as a CCO.

26.192 At present, Watercare is a CO, but there are a number of Watercare-specific provisions in the Local Government Act 1974 that require it to operate in a way that gives it greater similarities to a CCO than a CO.¹⁰³ For the sake of consistency and simplicity, the Commission recommends that, under the new arrangements, Watercare operate as a CCO.

26.193 The Auckland Council, with advice from an independent Appointments Advisory Panel¹⁰⁴ would be responsible for appointing the board of directors and setting Watercare's statement of corporate intent. The Shareholders' Representative Group would no longer be required.

26.194 The Commission envisages that the policy decisions to be made by the Auckland Council and agreed with Watercare's board for inclusion in the statement of corporate intent, will include matters such as

- any pricing targets (such as the "CPI-x" model adopted by Watercare in the past¹⁰⁵ – this sort of target is likely to be particularly applicable in the period after

¹⁰³ Local Government Act 1974, Part 44C, sections 707ZZZR–707ZZZS.

¹⁰⁴ See further discussion in Chapter 21, "Council Organisations and Council-Controlled Organisations".

¹⁰⁵ CPI-x is an incentive-based form of price/revenue control. Changes in price or revenues of controlled goods or services are limited to the increase in a general price index, such as the Consumers Price Index ("CPI"), minus a factor (x) determined by either the board of a public good company or a regulatory authority (such as the Commerce Commission), in order to reflect anticipated efficiency gains or productivity growth which will lower the cost of producing the regulated goods and services.

For six years from 1 July 2001, Watercare implemented a voluntary CPI-x price regulation. This initiative was proposed by Watercare's management and endorsed by its board. A CPI-x pricing regulation system also applies in the United Kingdom, although it is imposed by a regulator rather than being implemented voluntarily. The regulatory authority, Office of Water Services, sets the efficiency factor "x".

amalgamation, when it should be possible for significant efficiency gains to be realised)

- efficiency targets in relation to unit costs (for example, labour and capital productivity, unit costs of outputs)
- the relevant “drought standard”
- credit rating targets
- water quality targets (within the parameters permitted by the Health (Drinking Water) Amendment Act 2007)
- policy guidelines for ameliorating the financial impact of water pricing on vulnerable customers
- demand management targets
- IWRM principles
- customer satisfaction surveys.

26.195 The Commission believes that it is important that all assets relating to Auckland’s water services remain in public ownership. Section 130(3)(a)–(c) of the Local Government Act 2002 provides that a local government organisation must not

- use assets of its water services as security for any purpose
- divest its ownership or other interest in a water service except to another local government organisation
- lose control of, sell, or otherwise dispose of, the significant infrastructure necessary for providing water services in its region or district, unless, in doing so, it retains its capacity to meet its obligations.

26.196 These provisions should continue to apply.

Stormwater

26.197 Stormwater services are complex and involve different considerations from those of water and wastewater. At present, the region is lacking a definitive, detailed plan for stormwater management.

26.198 The Commission agrees with the conclusion reached by the Boston Consulting Group that regional leadership and coordination, along with local implementation, are integral to successful stormwater management.¹⁰⁶

26.199 The Commission recommends, therefore, that the Auckland Council should be responsible for stormwater policy and setting regional priorities, and determining the extent to which responsibilities for the delivery of stormwater services should be shared

¹⁰⁶ The Boston Consulting Group, Infrastructure Auckland and Auckland Regional Council, *Auckland Regional Stormwater Project: An Action Plan to Deliver Improved Stormwater Outcomes*, Auckland, May 2004, p. 17.

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between local councils and Watercare.¹⁰⁷ Watercare will need to be involved with both planning and service delivery, especially in relation to Auckland City, where much of the stormwater system comprises combined stormwater and wastewater pipes. As discussed further in Chapter 8, “Environment, Urban Design, and Heritage”, the Commission recommends that Watercare should be required to prepare a stormwater action plan.

26.200 The Commission notes that a report prepared by PriceWaterhouseCoopers in 2004 recommended that stormwater services should be funded by implementing a charge on impervious surfaces, supplemented by an allocation of road user charges. It is outside the Commission’s terms of reference to make any recommendations on this issue.

Pricing

26.201 Watercare has a statutory obligation to maintain its prices at a minimum level, subject to obligations to be an effective business and to maintain its assets in the long term (see paragraph 26.32).

26.202 As mentioned at the beginning of this chapter, New Zealand has ratified the International Covenant on Economic Social and Cultural Rights and the General Comment on Water, which entitles everyone to affordable water for personal and domestic uses. Given New Zealand’s ratification of this covenant, coupled with concerns about the negative social impact of unduly high water prices, the Commission considers that Watercare’s current pricing obligations are an appropriate mechanism for the future.

26.203 Demand management (which should be achievable notwithstanding restrictions on price increases) and the resulting impact on restraining capital expenditure should assist in holding tariffs.

26.204 In the Commission’s view, both water and wastewater charges should be calculated on a volumetric basis¹⁰⁸ in accordance with the total amount of water consumed. This will assist with demand management.

26.205 In the interests of demand management, Watercare should continue to have the flexibility to use “block tariffs” in its pricing structures.¹⁰⁹ This would mean that the first “block” of water is charged at a fairly low price, but any water used over and above that amount is charged at a higher rate. The purpose of block tariffs is to ensure that everyone has access to enough water for basic necessities at a reasonable rate, but this cheaper rate does not apply to additional, more discretionary use. This system already applies in Franklin, where the first 200 cubic metres per six months costs \$1.93 per cubic metre, and every cubic metre above that costs \$2.44 per cubic metre.

107 This is supported by recommendations in the Government-initiated *Auckland Region Water, Wastewater and Stormwater Review (1999–2002)*, which found that stormwater catchments and infrastructure need to be planned in an integrated way but stormwater should not be amalgamated with water and wastewater without a technical review.

108 As wastewater is not metered, this would be a notional volumetric assessment based on water consumed.

109 Watercare introduced a block tariff on 1 July 2008, but Auckland’s water retailers have not introduced the tariff at the retail level. For block tariffs to be effective in terms of demand management they need to operate at the retail level.

26.206 The Commission has given careful consideration to the issue of whether there should be uniform charges for water services across the region despite

- differing costs of delivery
- different condition of infrastructural assets
- different historic costs that ratepayers in various areas have met.

26.207 The Commission considers that it would be unworkable for different tariffs to apply, and that one of the main benefits of an integrated structure is consistency across the region. It recommends, therefore, that there should be uniform charges for water and wastewater across the region.

Māori representation

26.208 The management of water is an important kaitiaki¹¹⁰ issue and mana whenua engagement is essential.

26.209 The Commission considers that the approach taken by Watercare to date is sensible, and it recommends that the role and functions of the Māori Advisory Group should continue.

26.210 As discussed in Chapter 22, “Māori”, the Commission considers that representatives to the Māori Advisory Group should in future be appointed by the Mana Whenua Forum, using the existing criteria set out in paragraph 26.136. It recommends that these arrangements be safeguarded in legislation (see Chapter 22).

26.211 The Commission notes that Māori interests in the provision of water services throughout the region will also be safeguarded as a result of having guaranteed mana whenua representation on the Auckland Council.

Environmental issues

26.212 The Commission considers that the Auckland Council will be well positioned to establish, monitor, and enforce appropriate environmental standards.

26.213 It will have a strong focus on policy and direction rather than service delivery, which will be carried out by the CCO, Watercare. Its broader, regional focus will give it greater options. It could, for example, investigate initiatives similar to those in Australia that require all new houses to install rainwater tanks, low-flow taps and shower fittings, and water-efficient toilets.

26.214 The Commission does not recommend the establishment of an Auckland Regional Environmental Protection Agency at this stage. It is possible that this type of body may be established at a national level at some point. (The Commission notes that the Government is proposing a national environmental protection agency.)

110 Kaitiaki – guardianship.

26. The Three Waters

26.215 As noted above, the Commission recommends that Watercare should be under a statutory obligation to promote demand management. This will have significant environmental benefits.

26.216 The Commission believes that it is highly desirable that the principles of IWRM be translated into Watercare's statement of intent to the greatest extent possible.

Performance oversight

26.217 The Commission recognises that Watercare will have increased monopoly power under the new structure. Without appropriate checks and balances, this could lead to

- over- or under-investment in assets and in maintenance
- poor quality of service to the consumer
- inefficient operations
- unjustifiably high prices to the consumer
- unjustifiably high dividends to the shareholder.

26.218 The Commission considers, therefore, that some form of regulation will be necessary. It recommends a relatively light-handed regulatory approach at the outset (see below), with the potential for stronger regulation if required over time. The effectiveness of this initial light-handed approach should be reviewed within 5 years of the establishment of the Auckland Council.

26.219 Heavy-handed regulatory regimes (such as that of the Office of Water Services in Britain) involve significant cost and, in the absence of real concern about the way in which an industry is operating, may be of questionable value. The Commission notes that the need for regulation is greater in a privatised industry, such as the water industry in Britain.

Current protections to continue

26.220 Watercare's monopoly power can be tempered in part by continuing the "public good" design principles entrenched in Watercare's current governance model. The Commission recommends that the following features be retained:

- A professional board of directors is responsible for the company achieving its statutory purpose, which is to "manage its business efficiently with a view to maintaining prices for water and wastewater services at the minimum levels consistent with the effective conduct of the business and the maintenance of the long term integrity of its assets".¹¹¹ Thus Watercare remains a minimum price operator whose retained surpluses and returns on assets are minimal.
- The board has an express obligation to maintain asset integrity, minimising the risk of under-investment in the city's water and wastewater infrastructure.

111 Local Government Act 1974, Part 44C, section 707ZZZ(1)(a).

- There is a prohibition on paying a dividend (thus removing potential subsidisation and high-rate-of-return issues evident in the current Metrowater arrangements). It is anticipated that efficiency surpluses will be applied to reducing customer prices.
- There is a constitutional requirement that the directors govern the company in accordance with the statement of intent and that its financial strategies must be consistent with the achievement of economic efficiency, intergenerational equity, and the optimal cost of capital.

Auckland Services Performance Auditor

26.221 In addition, the Commission recommends that an Auckland Services Performance Auditor should be appointed. This person would have oversight not only of Auckland's water services industry, but all Auckland Council activities to provide assurance to the elected council and the public that the Auckland Council is providing high-quality services in a cost-effective way. This would be a very senior role, which would need to be undertaken by a person who enjoys the trust and confidence of the Auckland public. The role of the Auckland Services Performance Auditor is discussed in more detail in Chapters 21, "Council Organisations and Council-Controlled Organisations", and 32, "Achieving a High-Performance Auckland Council".

Legislative changes that will be required

26.222 Legislative amendments will be required in order to

- grant Watercare the power to provide retail water and wastewater services
- require Watercare to promote demand management
- provide for the Māori Advisory Group as a statutory body
- establish an Auckland Services Performance Auditor.

26.223 Existing statutes that will need to be amended or repealed include the Local Government Act 1974, the Resource Management Act 1991, the Auckland Metropolitan Drainage Act 1960, and the North Shore Drainage Act 1963.

26.224 In due course, the overall legislative regime for the three waters will require a complete overhaul, but at this stage the Commission is recommending only those changes necessary to give effect to the proposals in this report (see Chapter 31, "Statutory Reform").

Transitional arrangements

26.225 The transitional arrangements to be put in place in respect of the three waters are discussed in Chapter 33, paragraphs 33.30 and 33.55.

26. The Three Waters

26.226 These arrangements will include asset and staff transfers from the existing territorial authorities to Watercare (such as retail water and wastewater assets) and to the Auckland Council (such as stormwater assets).

26.227 Engineers, planners, and scientists are crucial to Auckland's infrastructure plans, and it is critical that robust retention arrangements are made to secure these skills during the transition period.

Recommendations

- 26A** The Auckland Council should have overall responsibility for setting policy in relation to the three waters.
- 26B** Subject to Recommendations 26C and 26D, Watercare Services Limited should assume statutory responsibility for all water and wastewater services within the Auckland Council area. The water and wastewater operations (including assets and relevant staff) of all abolished local authorities should be transferred to Watercare Services Limited on the establishment date. This includes the water and wastewater operations of Rodney District Council, North Shore City Council, Waitakere City Council, Papakura District Council, Franklin District Council, Metrowater, and Manukau Water Limited.
- 26C** In urban areas, all drinking water and wastewater services should be supplied by one council-controlled organisation (Watercare Services Limited) owned by the Auckland Council. (This is subject to existing contractual arrangements in Papakura.)
- 26D** The Auckland Council should determine whether and/or the extent to which Watercare Services Limited will supply retail water and wastewater services in rural areas such as Franklin and Rodney.
- 26E** No compensation should be payable for the transfer of water-related assets from the existing territorial authorities to the Auckland Council.
- 26F** All assets relating to Auckland's water services should remain in public ownership.
- 26G** The Auckland Council should determine the extent to which responsibilities for the delivery of stormwater services are shared between local councils and Watercare Services Limited.

- 26H** The current obligation on Watercare Services Limited to maintain prices for water and wastewater services at minimum levels (subject to obligations to be an effective business and maintain its assets in the long term) should continue. So too should the prohibition on paying a dividend.
- 26I** Watercare Services Limited should be required by legislation to promote demand management.
- 26J** Both water and wastewater charges should be calculated on a volumetric (or notionally volumetric) basis.
- 26K** Uniform charges for water and wastewater should apply across the region.
- 26L** The “public good” protections in Watercare Services Limited’s current governance model should continue. These protections relate, amongst other things, to efficient management of the business, pricing, and maintaining asset integrity.¹¹²
- 26M** Watercare Services Limited should be required to prepare a stormwater action plan.

Transition

- 26N** The Establishment Board will have an oversight role in relation to the integration of local water network operations into Watercare Services Limited. This integration will be undertaken by Watercare Services Limited. Watercare Services Limited should consult with the Establishment Board on the development of a draft statement of intent and agree on appropriate efficiency targets for the integration.

¹¹² See discussion at paragraph 26.220 of this volume.

Appendix 26.1: Historical background

Auckland constructed its first significant water reticulation system sourced from the Auckland Domain in 1866. In 1877, the water reticulation system was supplemented by the construction of a storage lake at Western Springs supported by a pump station and two city reservoirs. In the early 1900s, Auckland City Council started work on the construction of a series of dams and storage lakes in the Waitakere Ranges designed to use gravity to supply Auckland's growing needs. The Waitakere sources were stretched by the post-war economic boom of the 1950s. With the urbanisation of Auckland, further water storage capacity was created with the construction of a number of dams forming lakes in the Hunua Ranges and a new water treatment plant at Ardmore.

From 1880, sewer systems were developed in a number of Auckland's original suburbs. In 1914, construction was completed of Auckland's first reticulated sewerage network including the Hobson Bay pipeline, the storage tanks at Okahu Bay (now Kelly Tarltons) and the main outfall works at Ōrākei. Oversight of the work was provided by a new municipal authority comprising representatives from Auckland City Council and the suburban boroughs. The authority was called the Auckland and Suburban Drainage Board.

Capacity for the system was reached in the 1930s with Ōrākei becoming polluted with the volume of raw sewage being pumped into the sea. In 1944 the board (now known as the Auckland Metropolitan Drainage Board) resolved to replace the Ōrākei outfall with a controversial plan to build tanks and treat the sewage with sludge drying beds on Browns (or Motukorea) Island in the inner Hauraki Gulf and dispose of the residue into the sea. After a number of petitions, inquiries, and reports the Browns Island option was abandoned in favour of a treatment plant at Mangere. The Mangere Wastewater Treatment Plant was opened in 1960. Subsequently, the Mangere plant has undergone a significant upgrade which has included the decommissioning of the oxidation ponds and the restoration of the Manukau Harbour foreshore.

In 1962, the North Shore Drainage Board authority comprising representatives of a number of North Shore boroughs, built and commissioned the North Shore's first treatment plant at Rosedale with its associated trunk sewers to serve the growing north-harbour suburbs. Rosedale and its associated infrastructure has since undergone significant and ongoing upgrades to meet demand and environmental requirements.

In 1965, the bulk water supply assets of the Auckland City Council (which comprised the majority of the region's bulk water supply assets, including the city-wide reticulation system) were vested in the then recently formed Auckland Regional Authority. Since then, councils have managed distribution of water supply from the bulk metering points to households and premises within council boundaries.

In the late 1980s, the local government regime underwent nationwide reorganisation. The Auckland Regional Authority was dissolved, together with numerous "borough" and "city" councils, and was replaced with the ARC and seven territorial local authorities. The ARC was made responsible for the bulk water and wastewater functions of the Auckland region and all the related assets were transferred to the ARC.

In 1992, ARC's bulk water and wastewater assets were transferred to a new organisation, Auckland Regional Services Trust. In 1992, the trust formed Watercare Services Limited as a local authority trading enterprise to manage the provision of regional bulk water and wastewater services across Auckland. In 1998, ownership of Watercare was transferred from Auckland Regional Services Trust to the Auckland, Manukau, North Shore, Papakura, Rodney, and Waitakere councils.

In the past eight years Watercare has constructed significant new regional bulk water and wastewater infrastructure. Since 2002, the Waikato Water Treatment Plant and pipeline have been commissioned and the plant's capacity incrementally developed. The Mangere water treatment plant has been upgraded and the replacement of the Ōrākei main sewer with the construction of a tunnel is under way.

In 1997, a CCO (Metrowater) was established by the Auckland City Council to provide retail water services in Auckland City. In the same year, United Water was awarded a 30-year contract (with a 20-year right of renewal) by Papakura District Council to provide retail water services in that area. In 2006, Manukau City set up a CCO (Manukau Water) to provide retail water services to Manukau City. Water remains a council-managed service in the other territorial local authorities.

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“Jobs, knowledge use and economic growth will gravitate to those societies that are the most connected, with the most networks and the broadest amount of bandwidth – because these countries find it easiest to amass, deploy and share knowledge in order to design, invent, manufacture, sell, provide services, communicate, educate and entertain. Connectivity is now productivity.”

Thomas Friedman, *The Lexus and the Olive Tree*, HarperCollins, London, 2000.

27.1 The Commission’s terms of reference invite it to consider what governance and funding responsibilities are required to “support and enhance ... the performance of the Auckland region as a growth engine in the New Zealand economy”, including the ability of the region to “compete internationally as a desirable place to live, work, invest, and do business”.¹

27.2 This chapter considers the importance of information communications technology (“ICT”) to the international competitiveness of Auckland.² It considers New Zealand and Auckland’s progress in implementing broadband infrastructure.³ It examines the various roles local government is playing in developing ICT infrastructure delivered by high-speed broadband. Policy and governance issues are considered and recommendations made. The chapter then turns to a brief review of e-government.⁴ It examines government policy and Auckland Council’s progress towards making more online services available to the public. Finally, the chapter outlines the Commission’s recommendations for broadband and an e-government strategy.

27.3 In the past, network infrastructure such as roads, rail, electricity, postal services, and the telephone have become vital to modern economies. ICTs, particularly broadband, are considered to be this millennium’s critical network infrastructure. Governments are

1 See Appendix A, Terms of Reference.

2 ICT refers to a combination of telecommunications networks, devices, and services that capture, transmit, and display data, information, and pictures electronically. ICT includes infrastructure networks (including the internet and the transmission networks), mobile phones, personal computers, data centres, and software applications and digital services.

3 Broadband is commonly referred to as high-speed data transmission service, which allows users to access the internet and other digital services at significantly higher speeds than through a dial-up modem. Broadband internet access to homes and business premises is delivered over five types of technology, namely digital subscriber lines (DSL) using copper wire connections, wireless, satellite, cable, and optic fibre.

4 “e-government” refers to the use by government of information technologies (such as telecommunications, the internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business, citizen empowerment through access to information, or more efficient government management.

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likening broadband to electricity and the telephone in its economic importance to future competitiveness. It is the major driver of the move from production-driven industry towards service and knowledge-based enterprises where skill, speed, and innovation are required to develop information-based services.

27.4 In New Zealand there are numerous studies assessing the long-term benefits of broadband and ICT.⁵ The Auckland Regional Broadband Advisory (“ARBA”)⁶ has estimated that if 60% of Auckland households and businesses used ultra high-speed broadband there could be up to a \$1.7 billion gain in regional gross domestic product over the long term.⁷ The New Zealand Institute estimates high-speed broadband could produce annual economic benefits of \$2.7 to \$4.4 billion for New Zealand.⁸

27.5 For cities, ICT infrastructure, particularly broadband, is an important element in attracting businesses (particularly the multinationals), people, and investment, and improving access to global markets. As people gain access to high-speed broadband they are developing new and innovative services based on technology and knowledge.

27.6 In addition to its economic potential, ICT has a social dimension, shaping the design of “connected” cities and communities. High-speed broadband coupled with e-commerce, videoconferencing, and teleworking has further potential to reduce environmental impacts by reducing the need for air travel, roads, and public transportation infrastructure.⁹ It can help reduce the costs of running a business and improve people’s productivity. All sectors of the community are benefiting from ICT services delivered by broadband “anyplace, anywhere at anytime”.

Broadband

27.7 The broadband industry in New Zealand has two components – the fixed or mobile network wholesale infrastructure on which data is transmitted, and the broadband retailers who access the infrastructure to provide the broadband internet packages to consumers. Telecom New Zealand is the dominant wholesale broadband infrastructure

5 Notable examples include the Covec Report, *Open Access Broadband in Auckland: Demand, Costs and Benefits*, prepared for the Auckland Regional Broadband Advisory, June 2008 (available at www.tuanz.org.nz), *The Auckland Regional Broadband Advisory Report*, *The Auckland Broadband Imperative – Enabling Transformation in the Auckland Region* (a white paper for broadband in Auckland, version 1.0), January 2008 (available at www.aucklandplus.com), the ICT Taskforce report, *Breaking Through the Barriers*, June 2003 (available at www.nzte.govt.nz/common/files/ict-final-report.pdf).

6 ARBA has representation from all Auckland councils and the Ministry of Economic Development.

7 Covec, *Open Access Broadband in Auckland: Demand, Costs and Benefits*, p. 8.

8 The New Zealand Institute, *Assessing New Zealand’s Current Broadband Path: The Need For Change*, March 2008 (available at www.nzinstitute.org).

9 The Climate Group, *Smart 2020: Enabling the low carbon economy in the information age*, April 2008 (available at www.theclimategroup.org).

The Smart 2020 report notes that teleworking can reduce the commuting car mileage travelled by teleworkers by up to 77% and reduce traffic congestion at peak times. The report suggests that video conferencing has the potential to replace local road trips and up to 20% of air travel.

provider using copper wires and digital subscriber lines (“DSL”)¹⁰ technology to deliver broadband services to the home and businesses. Copper wire technology is used in 69% of all broadband connections.¹¹ Seventeen percent of users access a wireless broadband service to connect remotely to the internet.¹² Wireless offers portability in metropolitan areas and a low-cost alternative to reach rural areas. Cellular networks also provide wireless broadband internet access via a cellphone or a computer. Eighteen percent of the total users in the country have fibre optic or coaxial cable direct to the home or business, which provides the highest quality and fastest data transmission.¹³ Fibre optic to the home or business premises is considered to provide the highest quality broadband. Telecom and Vodafone are the two dominant wholesale cellular providers. Broadband retailers include TelstraClear, Slingshot, Woosh, Orcon, Telecom, and Vodafone among others.

27.8 High-speed broadband has three related factors: the transmission speed of the connections, the quality of the access device, and the information services and content being accessed over the connections.

Economic importance

27.9 New Zealand has been slow to invest in high-speed broadband. New Zealand and Auckland lag behind other countries and cities that are more advanced in rolling out broadband networks that are capable of transmission speeds that will keep up with a dynamic and ever-changing technology.¹⁴ Figure 27.1 illustrates New Zealand’s position relative to other developed countries including Australia. The OECD data show New Zealand has

- a relatively low number of broadband subscribers
- a high level of dial-up internet connections
- a low level of fibre optic cable-based high-speed internet access
- a high level of copper-based DSL broadband internet access.¹⁵

27.10 Until recently New Zealand has lacked competition in broadband infrastructure provisioning, with Telecom New Zealand dominating in the key telecommunications service and infrastructure areas (including ownership of the copper wire link between the exchange and the home or business premises). As a result of recent reforms, including the

10 DSL is a broadband technology that enables high-speed internet access to a home or business over a standard copper telephone line.

11 Statistics New Zealand, *Information and Communication Technology in New Zealand: 2006*, Wellington, 2007, p. 74 (available at www.stats.govt.nz).

12 Ibid., p. 74.

13 Ibid., p. 74.

14 The *Economist* magazine’s Intelligence Unit has recently published its 2008 assessment of e-readiness (being a measure of the quality of a country’s ICT infrastructure). New Zealand ranks 16th behind Australia (which ranks 4th), representing a fall in ranking from 14th place in 2007. Economist Intelligence Unit, *E-readiness rankings 2008: Maintaining momentum*, 2008, p. 5.

15 www.oecd.org/sti/ict/broadband.

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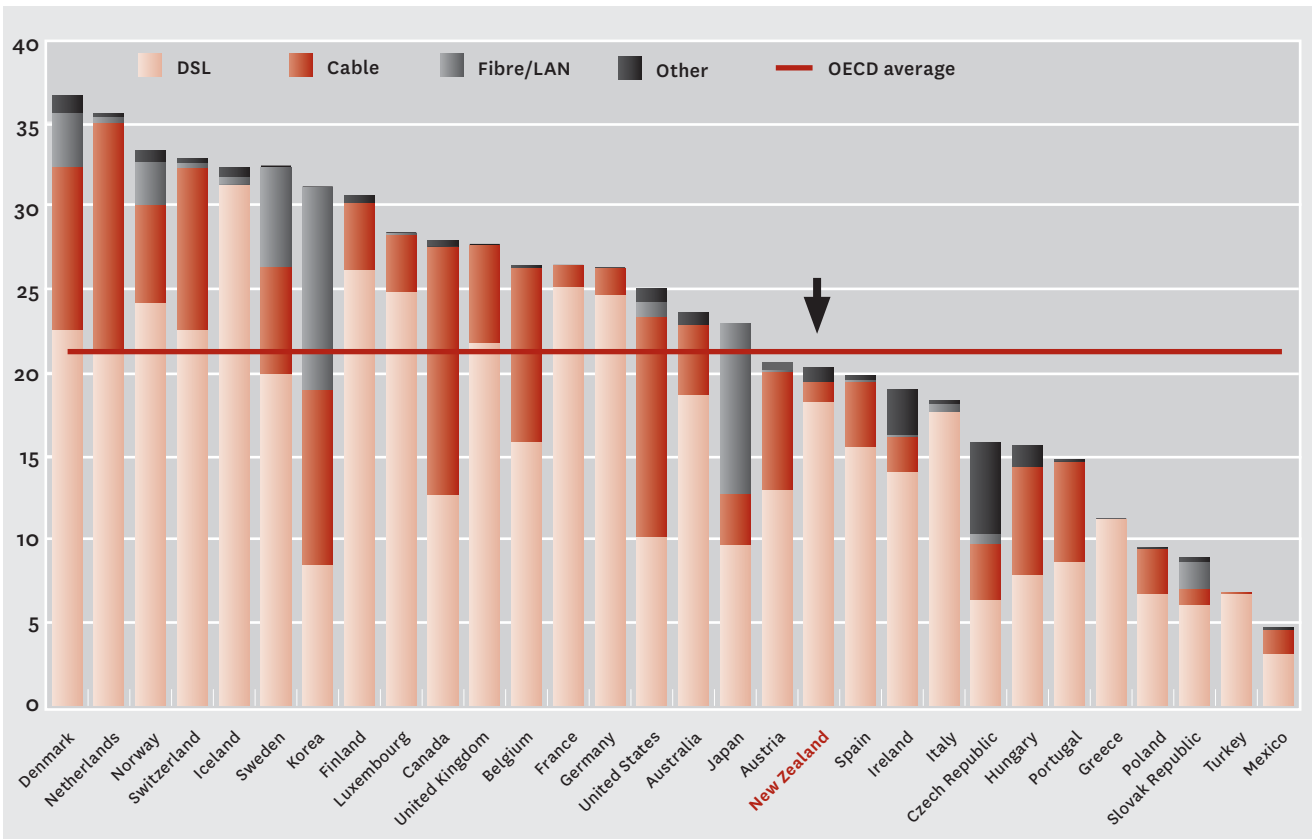


Figure 27.1 Broadband subscribers per 100 inhabitants, by technology, June 2008

Source: Organisation for Economic Co-operation and Development, *OECD Broadband Statistics* (available at www.oecd.org/sti/ict/broadband).

introduction of the unbundling of Telecom’s wholesale services giving “open access”¹⁶ to local loop circuits and bitstream services, competition is improving.

27.11 However, there has been relatively slow development in advanced broadband services, and there are a relatively small number of service providers and high comparative prices for internet access in New Zealand. This is of concern to the New Zealand Government, which intends to invest up to \$1.5 billion in an ultra-fast broadband network with a “fibre-to-the-home” aspiration connecting 75% of New Zealanders as an important part of its economic strategy.¹⁷

27.12 Notwithstanding the slow start for broadband, the internet is already playing a large role in New Zealand. Over one million New Zealand homes now have access to it. Public libraries provide public access to it. More than 69% of New Zealanders use

16 “Open access” is a term generally meaning that access to a broadband cable (and sometimes network hardware) is available to service providers on an equal footing.

17 See national.org.nz/Article.aspx?articleId=28767 and www.beehive.govt.nz/release/government+readies+new+moves+broadband.

it or have access to the internet via a mobile phone.¹⁸ The widespread use of mobile technologies is driving the convergence of previously separate information communication technologies. For example, voice, data, and video are now shared on devices such as mobile handsets, personal digital assistants, and televisions.

Performance issues

27.13 The OECD has found that the value of broadband is particularly significant in the large service sectors such as financial services, business services, and transportation, which comprise a large part of the Auckland economy.¹⁹ An improved service is therefore important to expanding this part of Auckland's economy. According to Statistics New Zealand, 43% of households in the Auckland region subscribe to broadband services, which is a low level compared with leading international cities.²⁰ Access to broadband is limited over a significant area of the Auckland region, particularly the rural area, largely because of the distance of homes and premises from Telecom's broadband exchanges.

27.14 As broadband services develop they are creating new ways for people to do business and are opening up new markets for products and services. For example, services such as Skype telephone and videoconferencing services,²¹ digital film production such as that carried out by Weta Workshops in Wellington, internet banking, on-demand television and video content all rely on high-speed, high-quality broadband. Auckland's lack of high-speed, high-quality broadband is constraining Auckland from participating fully in the new "digital" economy.

27.15 Telecom plans to spend \$1.4 billion nationally to roll out upgraded broadband infrastructure over its copper wire lines to homes and businesses over the next four years. It has been noted that in total the private sector has signalled new investment of \$3 billion in broadband and mobile networks by 2012.²² The Ministry of Economic Development notes that while this new investment will create a better platform for competition, "some form of supplementary action to leverage faster and greater private sector investment in ultra-fast broadband is needed if New Zealand is to continue to close the gap with other OECD countries".²³

27.16 There are two underlying concerns with current broadband investment. The first is that it is insufficient to achieve the Government target of servicing 75% of New Zealand homes and premises. The New Zealand Institute estimates this broadband target

18 Statistics New Zealand, *Information and Communication Technology in New Zealand: 2006*, pp. 8 and 14.

19 OECD Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, *Broadband and the Economy – Ministerial Background Report DSTI/ICCP/IE(2007)3/FINAL*, 2008, p. 24 (available at www.oecd.org/dataoecd/62/7/40781696.pdf).

20 Statistics New Zealand, *Information and Communication Technology in New Zealand: 2006*, p. 74.

21 Skype is a voice over internet protocol which allows users to make free voice and video calls over the internet to anyone else who has Skype (www.skype.com).

22 Ministry of Economic Development, "Briefing for the Incoming Minister", November 2008 (available at www.med.govt.nz, accessed February 2009).

23 *Ibid.*, p. 7.

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requires an investment of between \$4 to \$5 billion.²⁴ The second concern is that Telecom's technology is designed to deliver a maximum 20 Mb/s broadband by 2011. Given that comparatively, international broadband speeds are getting faster and faster, the 20 Mb/s target is not sufficient to place New Zealand in the top half of OECD broadband service by 2012. Top-performing OECD broadband services are delivering speeds of around 50 Mb/s today. It can be expected that those speeds will soon increase by up to 1 Gb/s as the top half of the OECD improves its infrastructure to meet demand.²⁵

27.17 There are a number of structural challenges for New Zealand in its broadband roll-out. First, as countries increase the pace of investment in broadband, the bar continues to be raised for New Zealand in terms of population reach and standards of transmission speed. Today's targets will be redundant tomorrow. Secondly, Auckland's sprawl and geographic features present permanent challenges to achieving a ubiquitous broadband network that allows access for the majority of households and businesses. Finally, unlike the United States, Asia, and Europe, there are no significant fixed-line cable operators offering competition with Telecom New Zealand for fixed-line services to the home.

27.18 Faced with similar structural challenges, an increasing number of cities and governments internationally are building and operating publicly owned broadband networks. Johannesburg is in the final stages of a tender for the provision of a municipal broadband network. Singapore, Korea, and Sweden are well advanced with plans to have open-access national fibre networks. Singapore is planning a minimum speed of 1 Gb/s and already has a high level of broadband uptake with over 76% of households able to access the internet at home and 99% of those households able to connect to broadband.²⁶

27.19 In Australia, Government is funding broadband "aggregation brokers" to generate and promote demand for broadband services by communities. These brokers include local councils which are being extensively used to generate community demand (particularly institutional demand) for broadband services and negotiate deals with service providers in advocacy and facilitation roles.²⁷

The role of local government

27.20 A number of New Zealand local authorities are well advanced in developing urban fibre networks as investors and owners. Wellington City Council has invested funds in broadband infrastructure. It is well ahead of Auckland in the planning and roll-out of broadband infrastructure. Wellington's broadband infrastructure plan has been in place for over 12 years and has been credited with enabling the growth and success of its thriving digital film industry. Investment started in 1995 with the CityLink project which

24 www.nzinstitute.org/Images/uploads/Delivering_on_the_broadband_aspiration.pdf, p. 12.

25 A 1 Gb/s data transfer rate is equivalent to 1,000 Mb/s (megabits per second).

26 Infocomm Development Authority of Singapore statistics (available at www.ida.gov.sg, accessed February 2009).

27 Department of Broadband, Communications and the Digital Economy, *Demand Aggregation Broker broadband program, 2007* (available at www.dbcde.gov.au, accessed February 2009).

provided open access broadband to the Wellington central business district and Petone. Smartlinx 3 Limited was established in 2004 as a joint public and private initiative. Porirua, Hutt City and Upper Hutt City councils are shareholders. Wellington City has been active in advocating the deployment of the second trans-Tasman fibre cable to the city, as one of two projects critical to its regional economic development strategy.

27.21 Christchurch City Council has formed a special-purpose subsidiary, Christchurch City Networks Limited, to deploy an open access fibre network within the central business district. Hamilton City Council has a joint venture company with private investors and the company has an outsourcing arrangement for the operation of its open access fibre network.²⁸

Broadband in Auckland

27.22 Research has found widespread user dissatisfaction with Auckland's current broadband capacity – its speed (both download and upload capacity), availability, reliability, and inflexible charging regimes. Auckland households reported the following reasons for not having broadband access – unavailable in their local area (5%); high cost (58%); dial-up access was considered sufficient (30%); and concern about suppliers and service (16%).²⁹

27.23 The Commerce Commission's 2008 Broadband Performance Report rates New Zealand's internet service providers' performance across all New Zealand's city centres.³⁰ Broadband performance between New Zealand cities showed variability. Auckland's performance is lagging behind Hamilton's and only marginally outperforms the other three city centres as illustrated in Figure 27.2.

27.24 The role of local government in broadband infrastructure development varies with councils playing advocator, facilitator, and investor roles. In the past, Government funding has been provided to local government by way of a grant from a funding pool. Auckland local government has allocated \$20 million in the various annual plans to broadband initiatives.³¹ This, however, is a small part of the estimated \$1.1 billion investment Auckland needs to deliver an internationally competitive high-speed broadband service to households and businesses with ducted fibre to the home or to premises.³²

28 Local Government New Zealand, *Councils in the digital age: A progress report on local initiatives relating to the Digital Strategy*, May 2008, pp. 47 and 48 (available at www.lgnz.co.nz).

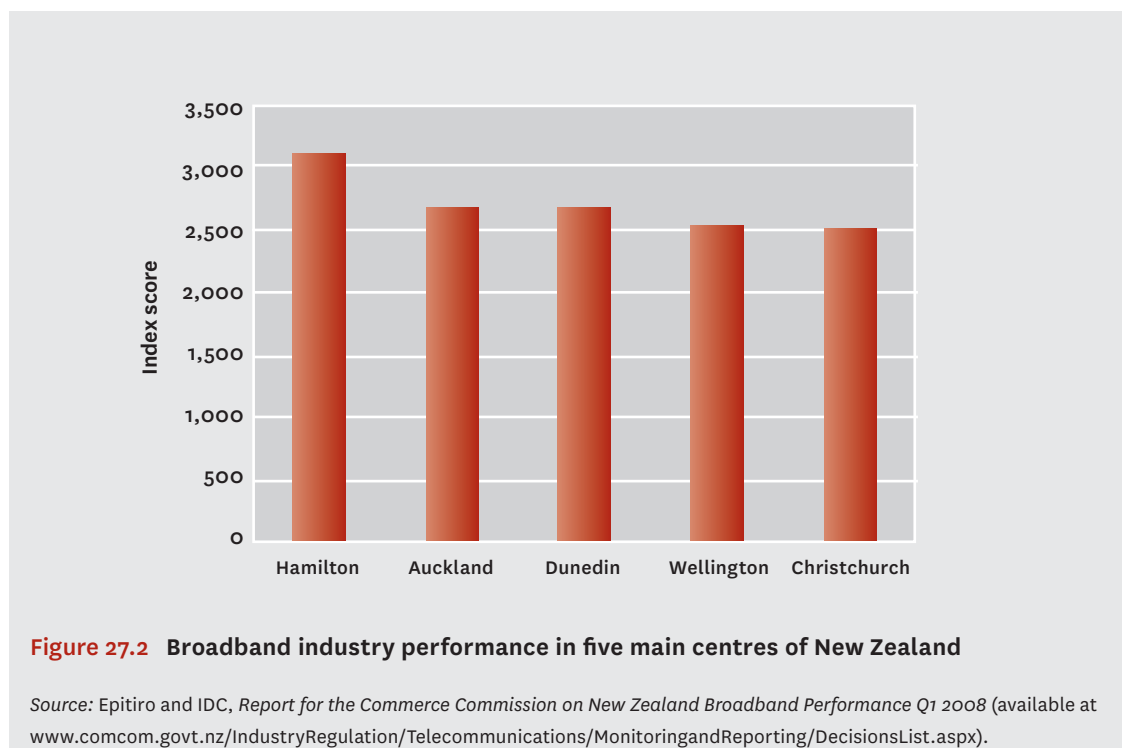
29 Statistics New Zealand, *Information and Communication Technology in New Zealand: 2006*, p. 77.

30 Eptiro Technologies and IDC, *A Report for the Commerce Commission on New Zealand Broadband Performance Q1 2008*, March 2008, pp. 13 and 14 (available at www.comcom.govt.nz/IndustryRegulation/Telecommunications/MonitoringandReporting/ContentFiles/Documents/March%2008%20broadband%20report.pdf). The index measures the technical performance of internet service providers over a number of locations and at different times.

31 Assessed from current long-term council community plans.

32 Covec, *Open Access Broadband in Auckland: Demand, Costs and Benefits*, p. 68.

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27.25 The Auckland region’s councils have recognised the strategic importance of broadband to the region in the “One Plan”.³³ The Auckland Regional Broadband Advisory, a group of local and central government officials, is advocating the use of a common approach across Auckland. However, progress in implementing a unified plan has been slow. ARBA’s recommendations are not binding on councils in the region, many of which have gone their own way in broadband infrastructure investment.

27.26 Steps taken by ARBA to date include research, promotion, and lobbying.³⁴ ARBA research has found that there are grounds to regard broadband network provision in Auckland as a case of market failure justifying some degree of public sector involvement and investment.³⁵

27.27 There are a number of private and public sector initiatives under way involving broadband infrastructure within the Auckland region.³⁶ These have largely been undertaken as separate projects by individual councils supported by Government funding. North Shore City Council is particularly well advanced with its partnership with Vector Limited. Vector has an open access 500 km fibre optic network including a 50 km urban fibre network in partnership with the North Shore City Council. This network has been partially funded by central government and provides high-speed broadband services to

33 The “One Plan” is a strategic framework for multi-agency infrastructure planning for Auckland.

34 The Auckland Regional Broadband Advisory Report, *The Auckland Broadband Imperative – Enabling Transformation in the Auckland Region*.

35 Covec, *Open Access Broadband in Auckland: Demand, Costs and Benefits*, pp. 98–99.

36 Local Government New Zealand, *Councils in the digital age: A progress report on local initiatives relating to the Digital Strategy*, p. 17.

council offices, 40 schools, public libraries, and community-owned facilities on the North Shore. The objective of the council is to provide a degree of revenue certainty to Vector to encourage it to invest further in high-speed broadband in its area.

27.28 ARBA has facilitated a collaborative approach with councils to develop a framework for the development of broadband infrastructure across the region. Confidentiality constraints have inhibited councils from sharing information for a number of each other's projects. ARBA's advocacy role is weak. Policy and funding fragmentation, the slow pace of converting regional plans into action, and the inability to quickly leverage joint council planning, tendering, and shared network approaches in the region represent a significant economic constraint for Auckland.

27.29 Manukau City has an optic fibre pilot in Flat Bush and will be requiring fibre-to-premises in new greenfield housing developments. The council is also considering laying a conduit in all new road works. Waitakere City Council has developed an online portal to encourage residents and businesses to establish websites. It is working to promote digital literacy and is advocating private sector investment in the district. The council is currently evaluating funding needs for inclusion in council plans. Within the ARBA planning framework, Auckland City Council is currently negotiating with a preferred partner to deliver a publicly accessible wireless network in the central business district. It is understood that this will be offered free of charge.

27.30 It is imperative, if Auckland is to progress to a state where broadband can be delivered as regionally critical infrastructure, to draw together all the various local government and central government initiatives into a regional framework, with a view to obtaining the best economies of scale and network technology outcomes.

Submitters' views on broadband

27.31 Submitters to the Commission highlighted the importance of a world-class broadband network to facilitate private and public sector productivity and performance, and to promote citizen participation in global communities. An open access network infrastructure and fibre-to-premises were seen as the key components of improving Auckland's connectivity competitiveness. It was argued that using public-private partnerships for communications infrastructure would deliver the optimal mix of performance, transparency, and accountability.

27.32 Submitters expressed a strong and consistent view that broadband should be considered by local government as a key infrastructure asset alongside transport and water. On this basis they considered that it should be handled at regional level with regional responsibility for budget, plans, and strategies related to broadband infrastructure development.

27.33 A range of options were put forward for how broadband should be managed. Some envisaged an infrastructure authority which would include responsibility for a broadband plan. Other submitters suggested that the provision of broadband infrastructure should be run along commercial lines, in partnership with the private sector or as some form of

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State-owned enterprise. Some submitters proposed that local government should own infrastructure assets including broadband.

The Commission's view

27.34 There is wide recognition that the pace of investment and delivery of high-speed broadband in Auckland will need to be accelerated for businesses in particular to be internationally competitive.

27.35 The key question is: what role should Auckland Council play in the development of broadband infrastructure? Local government has been involved in a range of roles including promoting and investing in broadband infrastructure. Auckland Council can also play a significant role in streamlining the regulatory aspects of a critical infrastructure roll-out and will be a significant purchaser of ICT for operational needs.

27.36 It is apparent that broadband, even at current service levels, is playing a significant part supporting and connecting economic and social activity in Auckland and internationally. Auckland has improving levels of broadband access, but broadband quality, price, and speeds are not internationally competitive. The problem is that the world is moving faster than Auckland to adopt high-speed broadband. Auckland's broadband infrastructure needs to be improved, quickly.

27.37 The policy challenges for Auckland are to

- ensure ICT planning is integrated into the region's economic development and infrastructure planning framework
- develop a broadband policy, funding, and delivery strategy for the region
- assess the cost/benefit trade-offs that may need to be made between competing infrastructure needs (such as transport, stormwater, water and wastewater, and broadband)
- exploit critical mass and raise the level of funding and investment across the region
- have sound collaboration and partnering processes with Government agencies and the private sector on rolling out broadband infrastructure
- develop the organisational capacity to perform the various roles required by public policy.

27.38 It is apparent to the Commission that investment in broadband infrastructure will involve a mix of central, local, and private sector funding. Given infrastructure's economic significance to the city, it requires closely co-ordinated public sector advocacy and planning with the telecommunications industry on a national and regional scale.

27.39 Auckland needs a change of approach to the current disconnected policy development for broadband infrastructure investment across the region. Planning and

delivering an integrated high-speed broadband network needs to harness scarce, expert resources for the region, and the current approach acts as an impediment. Voluntary cross-council collaborative initiatives are slow and lack the formality and certainty needed if a mix of public and private investment is to be sought and leveraged.

27.40 The Commission notes that Auckland will need to have a more cohesive regional strategy that is capable of driving co-investment, and generating adequate funding and economic incentives to encourage improved deployment of broadband by the private sector. The challenge is to ensure Auckland has the appropriate public sector governance mechanisms and expertise in place to

- take a regional network view of broadband infrastructure
- work in collaboration with central government and the private sector to ensure Auckland's broadband infrastructure needs are addressed.

The Commission considers that it is up to the Auckland Council to decide what position it will take in investing in broadband infrastructure. This will depend on a number of considerations including the Government's as yet unannounced policy on broadband.

e-government

27.41 The Commission considers e-government has considerable potential to transform the way council services are delivered and to provide better quality public services at lower cost.

Government policy

27.42 In conjunction with the digital strategy, the Government has developed an e-government strategy to improve the public's on-line access to public services.³⁷ The New Zealand e-government strategy has two ambitious targets for central and local government. The first is that by 2007, ICT will be integral to the delivery of government information, services, and processes. This target has not been achieved by local government. The second is that by 2010, the operation of government will be transformed as Government agencies and their partners use ICT to provide user-centred information and services and achieve joint outcomes.

27.43 Central government has implemented a number of new service initiatives using the internet including

- the use of smart forms to incorporate companies online
- a single central government website that gives the user the ability to access information and the capability to search for information available across all central government departments³⁸

37 Details of the New Zealand Government's e-government strategy can be found at www.e.govt.nz.

38 The New Zealand Government portal is available at <http://newzealand.govt.nz/>.

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- a web-based earthquake and volcanic hazard monitoring and information system
- a public consultation “Wiki” website³⁹ to promote public engagement allowing online feedback on the drafting of the new Police Act for consideration by a government Select Committee reviewing submissions.

27.44 To achieve e-government targets, Government has adopted a whole-of-government approach to ICT to create an integrated information infrastructure. The Government has also implemented a mandatory set of common standards and policies for cross-agency collaboration, citizen engagement, authentication, identity, privacy, and data sharing protocols called the e-Government Interoperability Framework.⁴⁰ These tools allow public services to be networked across departmental boundaries to make information more accessible to people, with robust governance controls.

The significance of e-government

27.45 In New Zealand, the e-government strategy has been designed to demonstrate the strategic significance of digital infrastructure.⁴¹ It seeks to improve the quality of public administration and services and to provide greater opportunities for the public to participate in democratic institutions and processes. It is designed to make public information more accessible through the use of the internet. A high-speed broadband network is acknowledged as an essential enabler for effective e-government services. The strategy expressly includes local government. There is no current e-government strategy for Auckland. The Commission considers e-government is of strategic importance to the region. It underpins the effectiveness and efficiency of 21st century governance for Auckland.

27.46 In 2008, the United Nations undertook a comparative survey of 192 countries for e-government readiness.⁴² The survey evaluated the application of ICT by governments. New Zealand ranked 18th overall. The top 10 included Australia, Sweden, Denmark, Canada, and the United Kingdom. The survey’s introduction explains why e-government is important:

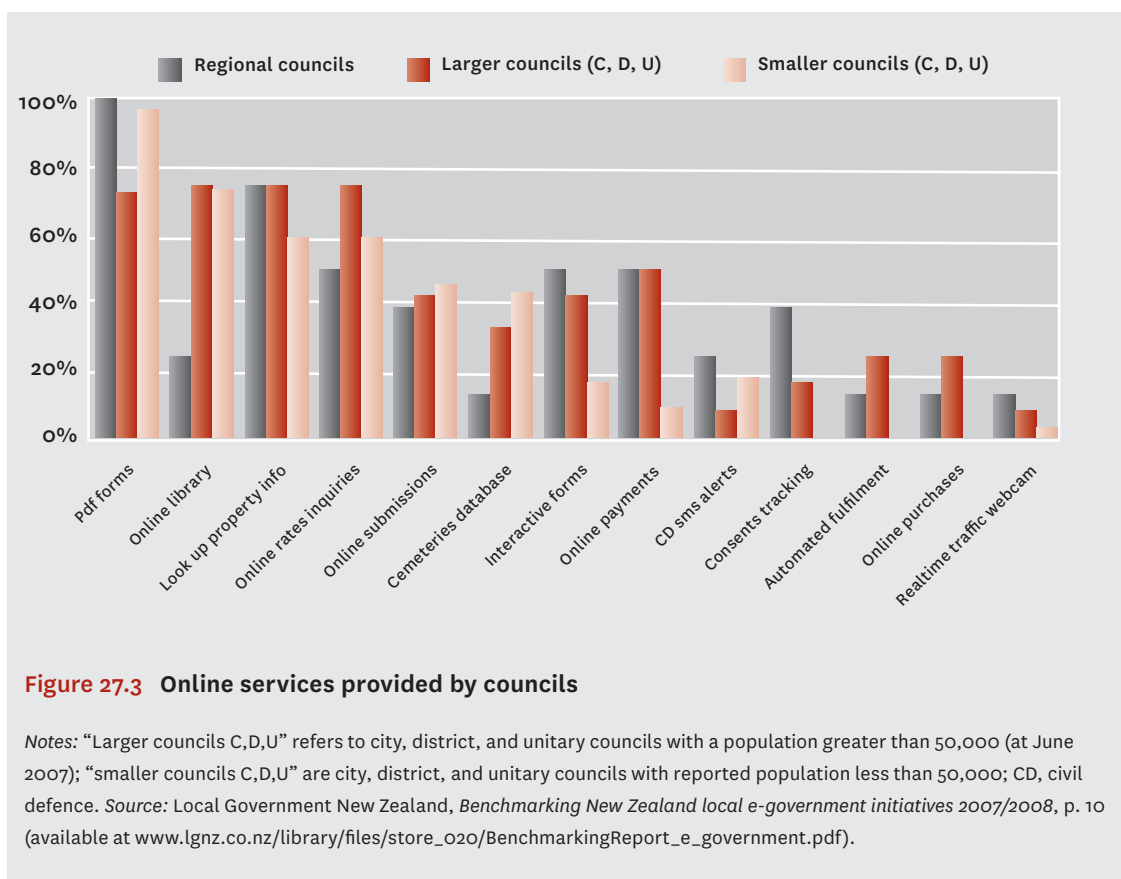
E-government can contribute significantly to the process of transformation of the government towards a leaner, more cost-effective government. It can facilitate communication and improve the coordination of authorities at different tiers of government, within organizations and even at the departmental level. Further, e-government can enhance the speed and efficiency of operations by streamlining processes, lowering costs, improving research capabilities and improving documentation and record-keeping.

39 A social networking tool.

40 Details of the Government framework can be found at www.e.govt.nz/standards/e-gif.

41 www.e.govt.nz.

42 Department of Economic and Social Affairs Division for Public Administration and Development Management, *United Nations e-Government Survey 2008: From e-Government to Connected Governance*, United Nations, New York, 2008, pp. 19–21 (available at <http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN028607.pdf>).



However, the real benefit of e-government lies not in the use of technology per se, but in its application to processes of transformation – including greater citizen participation and harnessing constructive knowledge exchange.⁴³

The significance of online service delivery

27.47 A recent survey by Local Government New Zealand has showed only 15% of the councils surveyed had e-government service policies and strategies.⁴⁴ The survey identifies a lack of resources as the primary reason for the low up-take of e-government services. A few councils provide online payment facilities for rates and other charges (see Figure 27.3). Most of the council websites offered downloadable application forms. Few councils offer online interactive application forms or consents tracking.⁴⁵ The majority of service interactions with councils surveyed are relatively high-cost face-to-face visits (47%) and by telephone (24%).⁴⁶

43 Ibid., Executive Summary, p xii.

44 Local Government New Zealand, *Benchmarking New Zealand local e-government initiatives 2007/2008*, p. 4, (available at www.e.govt.nz/resources/research/benchmark-2007-2008.pdf).

45 Local Government New Zealand, *Benchmarking New Zealand local e-government initiatives 2007/2008*, p. 10.

46 *Public Satisfaction with Service Quality 2007: The Kiwis Count Survey*, State Services Commission, Wellington, April 2008, p. 14 (available at www.ssc.govt.nz/upload/downloadable_files/Public-Satisfaction-with-Quality-2007-_Kiwis-Count.pdf).

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27.48 The survey noted that the adoption by councils of the technologies required to drive increased interactive online services has been slow.⁴⁷

27.49 Generally, local government's progress towards achieving the e-government targets lags behind central government. Adoption of central government's interoperability framework and common ICT standards is poor.⁴⁸ Adoption of these elements of ICT infrastructure is essential in achieving cost-effective online delivery for Auckland Council services.

27.50 There is a high level of ICT duplication in Auckland local government with at least 10 call centres, eight or more data centres, and over 20 separate major local government-related websites across the region. Each stand-alone website has different ways of presenting and making available public information. There are no common IT standards for the councils in the region. A single website or "portal" is a common feature of government today allowing a user to search for information across public sector or council organisations with ease.

27.51 Compared with international trends, Auckland is generally lagging behind in delivering interactive services using telephone, internet, and mobile channels. Auckland should be more proactive in driving and creating demand for ICT services, including broadband, by providing service delivery leadership for new online services, generating expectations and demand for these sorts of services. Democratic engagement with people should be extended by increasing the range of services and service channels accessible online.

27.52 The internet is driving the development of new approaches to democratic processes. A class of internet user has adopted the notion of sharing by publishing their views on the internet through community networks such as YouTube and MySpace. Governments are starting to use this desire for interactivity to solicit opinion and feedback, or by acting as facilitators in online discussions between citizens – for example, the "blog" written by the New Zealand government as an on-line channel for improved citizen communications.⁴⁹

27.53 Internationally, local governments are collaborating and joining up to provide shared services across council boundaries, or adopting collective approaches to common activities such as procurement and tendering. Worcestershire County Council and six other district councils have been working together to create the Worcestershire Hub.⁵⁰ This is a "one stop shop" for the public to access all local government services in person, over the phone, and on the internet. The service provides a network of customer centres throughout Worcestershire, where members of the public can go in to discuss any issue,

47 Local Government New Zealand, *Benchmarking New Zealand local e-government initiatives 2007/2008*. This benchmarking exercise found that only 10% of the councils surveyed were using the All-of-Government authentication framework and no councils surveyed were using the government shared network.

48 *Ibid.*, p. 5.

49 <http://blog.e.govt.nz/>.

50 <http://hub.whub.org.uk/home/hubindex.htm>.

regardless of which of the local authorities they need to deal with. With 1,700,000 enquiries each year, the Hub is ensuring that a high proportion of enquiries are resolved at the first point of contact.⁵¹

27.54 The popularity of social networking websites is growing rapidly. As well as creating links between people in society, greater connectivity is driving more online interactions between governments, politicians and citizens. People are getting greater access to information presented by governments and using the internet for voting, two-way consultation and informal feedback on policy. This is greatly assisting the democratic process and ensuring a high level of local community involvement. In Bristol, the British equivalents of New Zealand's community boards are using internet-based forums to improve two-way local government communications on matters of local interest.⁵²

27.55 Governments are increasingly providing online services to citizens such as applications for planning, permits, and essential information. Natural and other disaster prevention and warning management systems also rely heavily on ICT. In Kuwait City, the building code requires new buildings to have access to broadband which is built into the utility infrastructure alongside electricity and water services. Internationally, public infrastructure is increasingly dependent on ICT, from traffic lights through to control of water reticulation and sewage systems, as well as congestion management, air traffic control, and emergency management.

27.56 A number of cities are developing operating models with less carbon impact assisted by e-government. For example, many paper-based services are being moved to an electronic environment. Transactions that have required face-to-face interaction to prove identity are now being undertaken over the internet. In England and Wales, all planning authorities are now accepting planning applications via a planning portal.⁵³

The Commission's view

27.57 The Commission expects that Auckland local government will be able to provide people with access to services whether it be by telephone, internet, mobile phone, or face to face. The internet is now the preferred service channel for an increasing number of people. Auckland Council services need to respond and be more integrated, personalised, and accessible. Auckland Council should adopt targets equivalent to best international practice for the percentage of online transactions it undertakes.⁵⁴

27.58 Unification offers a significant opportunity for Auckland Council to demonstrate leadership in broadband. Broadband networks and interactive e-government services can

51 www.worcestershire.gov.uk/home/wcc-cs-lads-agendas-cabinet-181208-item9.pdf.

52 <http://forums.e-democracy.org/groups/bristol-bris>.

53 www.planningportal.gov.uk/parsol.

54 In a number of councils in the United Kingdom, including Birmingham, Newcastle, and Surrey, all council services can be accessed electronically via a variety of channels, including the internet, kiosks, and telephone.

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be used to extend the range of local government services available to Aucklanders. This opportunity is explained further in Chapter 32, “Achieving a High-Performance Auckland Council”.

27.59 The Commission is of the view that Auckland Council should take a whole-of-government approach to ICT and service delivery. Central government’s interoperability framework should be adopted including the common standards and policies for government agency collaboration, citizen engagement, authentication, identity, privacy, and data sharing protocols. These governance tools will allow improved communication and interaction between central government and Auckland Council, and Auckland Council and its communities. The deployment of a broadband network infrastructure to support Auckland Council’s operations in various locations could also provide the opportunity for improved collaboration with appropriate Government agencies.

27.60 The Commission has made recommendations on Auckland Council’s unified service delivery arrangements including the development of an ICT strategy in Chapter 32.

Recommendations

- 27A** The Auckland Council should work with central government to prepare a regional broadband infrastructure investment and management plan for the Auckland region, consistent with New Zealand's Government broadband policy.
- 27B** Broadband infrastructure planning should be undertaken by the Auckland Council, whose role will include
- a) acting as the leader, advocate and promoter of broadband investment for the Auckland region with central government and the telecommunications industry.
 - b) acting as the bulk funding applicant for central government broadband investment funding on behalf of the region and its communities if required.
 - c) taking responsibility to act as regional public broadband investor and manager if required.
- 27C** The Auckland Council's ICT infrastructure and functions should be managed centrally with a single information technology infrastructure and communications platform and common standards.
- 27D** The Auckland Council should prepare an e-government strategy as an intrinsic part of its proposed unified service delivery and information systems plan.
- 27E** The Auckland Council should consider setting targets for online service delivery consistent with leading international public service practice.

Transition

- 27F** The Establishment Board should prepare an interim information systems and e-government strategy for Auckland Council, including those elements set out in detail in Chapter 32.

28. Electricity

28.1 The terms of reference invite the Commission to consider what governance and institutional arrangements and funding responsibilities are required

to ensure the effective, efficient, and sustainable provision of public infrastructure, services, and facilities to support and enhance—

- (i) the current and future well-being of the Auckland region and its communities; and
- (ii) the performance of the Auckland region as a growth engine in the New Zealand economy and in its role as a key transport hub for New Zealand and the Pacific region; and
- (iii) the ability of the Auckland region to compete internationally as a desirable place to live, work, invest, and do business; and
- (iv) the ability of the Auckland region to respond to economic, environmental, cultural, and social challenges (for example, climate change);¹

28.2 Secure energy supply is essential for Auckland’s well-being and economic performance. Families and businesses rely on there being a dependable electricity supply. And in a city that is planning for growth, Aucklanders need to be confident that its future capacity requirements are being met.

28.3 In 1998, Auckland’s central business district was brought to its knees by an extraordinary chain of cable failures within Auckland’s distribution network, causing six weeks of outages and disruptions. The economic cost was high. Long-term economic losses to New Zealand were estimated at 0.1%–0.3% of gross domestic product. The crisis forced the vacation of 54% of premises in the affected area and had an impact on 70,000 workers and 7,500 residents. Hundreds of businesses had to close temporarily, with major loss of income and production.² The crisis has left a perception that security of electricity supply is a problem for Auckland, representing a risk consideration for international companies looking to establish operations in the city.

28.4 In 2006, extreme weather events caused a failure at Transpower’s Otahuhu substation, disrupting power supplies to large areas of Auckland for some days. In 2003 and 2008, Auckland, along with the rest of New Zealand, experienced security of supply issues caused (in 2003) by a prolonged drought, declining Maui gas reserves and an insufficient coal stockpile at Huntly. In 2008, in addition to drought, the sudden and unexpected closure of the gas-fired New Plymouth power station and one half of the Cook Strait high-voltage direct current link caused supply shortages.

1 See Appendix A: Terms of Reference.

2 See Auckland Regional Council website, “Civil Defence Emergency Management, Technological (man-made) hazards, Infrastructure failure” (available at www.arc.govt.nz, accessed February 2009), and *New Zealand Herald*, 20 February 1998.

28. Electricity

28.5 In February 2009, further electricity disruptions affected Auckland's eastern suburbs after the failure of a transformer during routine maintenance of Transpower's Penrose substation, causing sewage overflows into the Waitemata Harbour and widespread economic and social disruption. In the main, these series of events over the past 11 years were caused by transmission events rather than a shortage in generation capacity.

28.6 These ongoing disruptions clearly represent a significant economic risk for Auckland. The lack of official mechanisms for local government to manage this risk, to advocate for Auckland's needs, and to ensure there is an internationally acceptable security of energy supply for Auckland provides a case for strong leadership for the city to advocate in respect of these issues.

28.7 The Auckland region is, like all major cities, reliant on energy sourced from outside the region, which requires a strong transmission grid capable of withstanding one or two contingencies without blackout. It also requires a strong distribution network with multiple connections to the grid, and the capability for rapid reconfiguration in the event of more than one problem.

28.8 This chapter summarises the electricity supply issues for Auckland, what needs to be done to address those issues, and how the governance arrangements proposed by the Commission should work to help reduce electricity supply risks for the city.

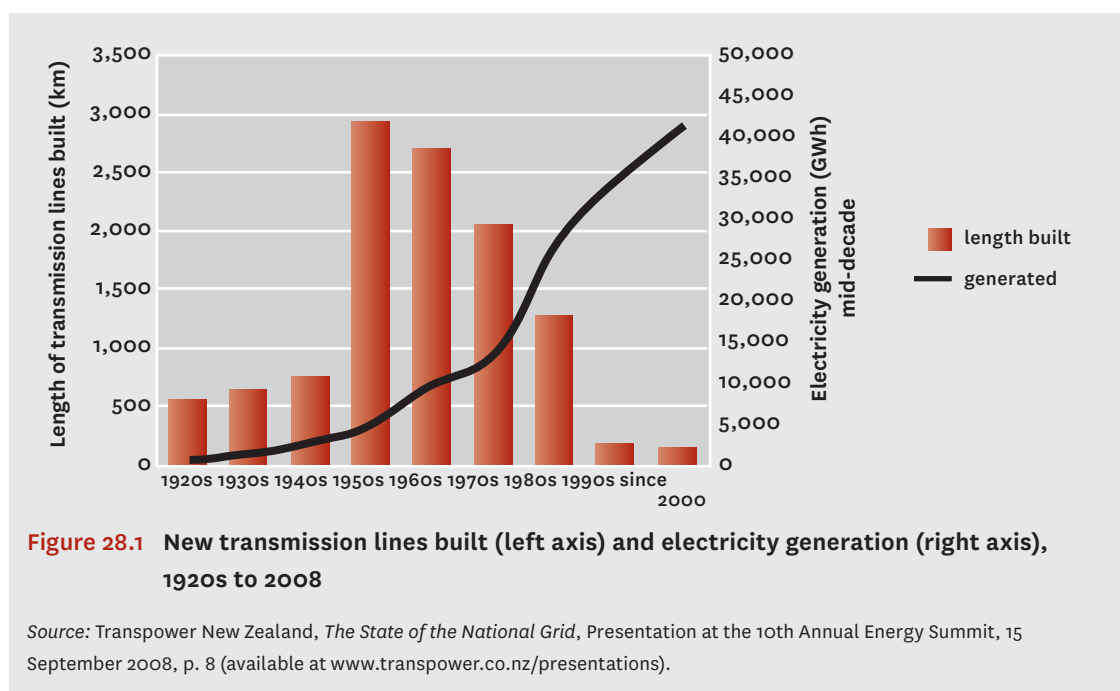
The significance of electricity to Auckland

28.9 Auckland demand is forecast to increase from around 6,900 gigawatt hours in 2007 to over 13,000 gigawatt hours by 2036.³ This represents an increase in overall share of national gigawatt hours for Auckland from 18.3% (2007) to 24.1% (2036).

28.10 It is not just residential and commercial markets that rely on electricity. The city's public utility infrastructure depends on continuous electricity supply to run essential services. Auckland's water and wastewater treatment and reticulation systems, its hospitals, schools, and its ports are already heavily reliant on electricity for effective operation. Without electricity, environmental and public health requirements, and the safety and security of Auckland residents, are seriously compromised. Within five years Auckland's increasingly important commuter rail services will be electrified. Given their partial ownership of the rail infrastructure, Auckland's local government is set to become a very large electricity consumer in its own right.

28.11 Recognising the strategic importance of electricity to the city, the Auckland Regional Council is developing Auckland's first regional energy strategy, for completion in

³ Electricity Commission, *2008 Statement of Opportunities*, August 2008, pp. 179–182 (available at www.electricitycommission.govt.nz, accessed February 2009). It should be noted that there are a number of demand forecasts for Auckland with no formal process for agreeing a common methodology and demand range across the industry



November 2009, as part of the regional policy statement.⁴ The Commission considers that the two core planning questions for Auckland are

- Is there sufficient capacity planned to meet long-term forecast demand?
- How can risks to security of supply be reduced?

The challenges

28.12 The Commission notes that achieving long-term continuous and reliable electricity supply for Auckland is a major challenge. There have been a number of plans and initiatives to diversify Auckland’s supply points and transmission capacity going as far back as 1981, but their lack of progress has made Auckland dependent on the Otahuhu substation with the passage of time. This is unacceptable, given that the Otahuhu substation has known design deficiencies, which cannot be rectified quickly.⁵

28.13 Added to the Otahuhu shortcomings, a further challenge to security of supply is the under-investment in upgrading the national grid, which is in a “catch-up” position. This position is illustrated in the Transpower chart of Figure 28.1, which shows how few transmission lines have been built during a period of steeply rising demand.⁶

4 See Auckland Regional Council website, “Sustainability” (available at www.arc.govt.nz, accessed February 2009).

5 “Connell Wagner Review of Report on Auckland Transmission Outage of 12 June 2006”, Ministry of Economic Development, July 2006, p. 1 (available at www.med.govt.nz, accessed February 2009).

6 Strange, Dr Patrick, *The State of the National Grid*, Transpower New Zealand Ltd presentation at 10th Annual New Zealand Energy Summit, 15 September 2008, p. 8 (available at www.transpower.co.nz, accessed February 2009).

28. Electricity

28.14 This under-investment is placing increasing stress on the national grid, which is becoming “less tolerant of faults”.⁷ The transmission risks have prompted a number of initiatives to increase local generation capacity. Over 70% of Auckland’s peak electricity demand is supplied by generation located south of the Bombay Hills. The Auckland region’s current local generation capacity is 652 megawatts (MW), provided mainly by Contact Energy’s 380 MW combined-cycle plant at Otahuhu and Mighty River Power’s 175 MW Southdown gas-fired, co-generation facility. Further, smaller co-generation sites are connected to Vector Limited’s electricity distribution network including Auckland Hospital and Greenmount, Rosedale, Redvale, and Whitford Landfill Power Stations.

28.15 Several preliminary investigations are under way, including proposals for wind farming around Kaipara. An expansion of the Ngāwhā (Kaikohe) geothermal power station from 15 MW to 25 MW was completed in late 2008. The only sizeable development on the horizon is Genesis Energy’s proposed new 480 MW power station planned for construction midway between Helensville and Kaukapakapa. The station will run gas and steam turbines (relying on a gas pipeline sourced south of the Bombay Hills). Applications for required planning changes and statutory consents have been lodged and heard.⁸

28.16 In future, distributed generation in Auckland is likely to include more industrial co-generation, wind farms, landfill-gas generation, small geothermal power plants, small diesel and gas generation, and solar power. Collectively these sources are not enough to supply the substantial load needs in the region, and the economic viability of local, large-scale electricity generation is questionable. For a long time into the future, Auckland will rely on generation from the south with all the resulting supply risks.

28.17 In the 10 years since Auckland’s major power crisis, some steps have been taken to improve the security of transmission supply. Common planning standards for a city such as Auckland would require a very robust security standard of N minus 1 or even N minus 2.⁹ This means that Auckland would not lose any supply in the event of the worst credible single failure, or the worst two credible failures.

28.18 Transpower, the national grid operator, has acknowledged that the N minus 1 planning standard needs to be met by the grid in order to provide greater diversity and security of supply to Auckland.¹⁰ The company has initiated a number of future investment plans to address the issues of diversity and security of supply. Transpower, together with Vector and Counties Power (which manage Auckland’s network distribution system), have

7 Ibid., p. 19.

8 See Rodney District Council website, “Planning and Development” (available at www.rodney.govt.nz, accessed February 2009).

9 “N minus 1” refers to an operational engineering standard. In a paper on Electrical Energy Security (2002), the Regulatory Assistance Project explains: “The electric grid has generally been constructed and operated under a standard to maintain uninterrupted operations, even with the loss of the largest single resource on the system (generation, a substation, or a transmission line). This is the N minus 1 standard, where N represents the sub-parts of the whole system and minus 1 represents the loss of the largest single resource (contingency) on the system.” (available at www.raponline.org, accessed February 2009)

10 Chairman, Transpower “Transpower’s response to Connell Wagner Recommendations” 21 July 2006, p. 3 (available at www.med.govt.nz, accessed February 2009).

completed several key initiatives to address security of supply issues, including finishing the Penrose-Central Business District power supply tunnel, the 22 kilovolt (kV) CBD backbone network, the sub-transmission reinforcement to key areas within Auckland, and the commissioning of a new substation at Ōhinewai.

28.19 Transpower’s Auckland Regional Plan has been prepared with a number of projects planned, including the installation of a new cross-harbour cable between Penrose and Albany and reinforcement of circuitry between Henderson and Penrose.¹¹ The Electricity Commission has recently given notice, however, that it intends to decline Transpower’s proposal to upgrade the transmission grid from Auckland to Albany (which includes the cross-harbour cable) on the grounds that uncertainty over the proposed Genesis Energy power station at Rodney made it inappropriate to approve the proposal at this stage.¹² The critical 400 kV national grid upgrade from the central North Island to Auckland and the Otahuhu substation upgrade have been approved by the Electricity Commission with both projects at the consenting stage.¹³

28.20 Vector’s asset management plan outlines its demand forecast, comparative regional growth trends, reliability performance, and service levels for distribution within the region. The plan sets out the company’s response to the challenge of meeting Auckland’s network requirements over the next 10 years, including projects such as substation upgrades and cable reinforcements.¹⁴ Further, by the terms of an agreement between Vector and its majority shareholder (the Auckland Energy Consumer Trust), Vector must provide an annual report to that shareholder from an independent expert on a number of network security of supply matters.¹⁵ The report addresses

- the state of the electricity network
- any need for upgrading the electricity network
- the capacity of the electricity network
- any security risks to the electricity network.

A certain number of Auckland councils are potential capital beneficiaries when the Auckland Energy Consumer Trust is wound up in 2073. However, these potential beneficial interests do not give Auckland councils influence over Vector’s operations or

11 Transpower Limited, *Annual Planning Report 2008*, March 2008, pp. 147–171 (available at www.gridnewzealand.co.nz, accessed February 2009). Note: the Auckland Region does not include Waitakere, North Shore or Rodney. These areas come within Transpower’s Northland Region.

12 Electricity Commission, “Electricity Commission announces intention to decline NAaN proposal”, media statement, 19 December 2008 (available at www.electricitycommission.govt.nz, accessed February 2009).

13 Transpower, *Annual Planning Report 2008*, p. i.

14 Vector Limited, *2007 Asset Management Plan*, 2007, pp. 83–102 (available at www.vector.co.nz, accessed February 2009).

15 Pursuant to the “New Deed Recording Essential Operating Requirements” dated June 2005. The annual report is available on the Auckland Energy Consumer Trust’s website (see www.aect.co.nz/aect/PDF/Siemens_Network_Report_Augo8.pdf).

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standards, nor does Vector fall within the scope of a council organisation under the Local Government Act 2002.

28.21 Notwithstanding these projects and controls, growth in demand from Auckland is continuing to place pressure on the overall national electricity supply system. A number of issues around the reliability, capacity, and overloading of transmission, generation, and distribution remain unresolved. With separate electricity companies involved in supplying different aspects of Auckland's needs, planning is undertaken in distinct silos without consolidated master planning and/or formal (and combined) consultation processes with key Auckland stakeholders.

The role of local government

28.22 The “big moves” in terms of planning electricity infrastructure are for the Government and the electricity sector to make. Nevertheless, the Commission considers local government has an important advocacy role to play, particularly at the regional level, in defining and assessing security of supply and the risks associated with failure to perform, and then in promoting Auckland city's electricity infrastructure and service requirements. Part of this is about the planning and advocacy undertaken by local government for the greater Auckland region. The other part is about drawing together the fragmented fields of electricity planning and then “getting out of the way”, so that progress on critical transmission and distribution infrastructure can happen.

28.23 A number of submitters made the point that the consent process needed to be improved to allow significant investment in transmission and generation to happen. There is the often-cited concern by the utilities that planning permissions for electricity infrastructure can be protracted, adding to project costs and timelines because of the need to obtain consents from several councils.¹⁶ Central government has responded to these concerns with the introduction (in 2008) of a national policy statement on electricity transmission. The statement recognises the significance of New Zealand's national grid in Resource Management Act plans and local government decision making. The national policy statement is supported by the proposed introduction of national environmental standards for electricity transmission (both these initiatives are through the Ministry for the Environment). The statement is designed to help local authorities remove regulatory and policy inconsistencies, which often do not give weight to central government policy in decision making.¹⁷

28.24 Local authorities have a mandate to be involved in energy efficiency through the Local Government Act 2002. They also have an express responsibility to promote sustainable energy management under the Resource Management Act 1991, and to take

16 Submission to the Royal Commission on Auckland Governance from Genesis Energy, p. 2. (All submissions are available at www.royalcommission.govt.nz.)

17 Ministry for the Environment, *National Policy Statement on Electricity Transmission* (available at www.mfe.govt.nz, accessed February 2009).

account of the National Energy Efficiency and Conservation Strategy (2001) in developing their land transport programmes. In particular, new and important responsibilities flow from the Resource Management (Energy and Climate Change) Amendment Act 2004.¹⁸ This Act requires local authorities, when exercising functions and responsibilities under the Resource Management Act, to have particular regard to the

- efficiency of the end use of energy
- effects of climate change
- benefits of using and developing renewable energy.

Councils are working closely with Government to implement the New Zealand Energy Efficiency and Conservation Strategy (2007), which replaces the 2001 national strategy. For example, a number of councils are helping Government deliver the Energywise home grants programme¹⁹ and many councils are promoting a reduction in energy consumption through high-quality urban design and improving their own facilities.²⁰

28.25 The Commission expects that the proposed Auckland Council will provide ongoing monitoring of the impact of electricity infrastructure investment and the gaps in the various operators' plans, and be proactive in advocating Auckland's energy needs. The Commission considers that the Auckland Council should be responsible for

- assessing the energy industry's performance and the implications for Auckland
- monitoring essential service and public infrastructure risks
- ensuring its decision making is consistent with central government policy
- advocating Auckland's needs to the industry players and to central government agencies
- when necessary, obtaining independent expert advice to provide public assurance on security of supply for the region
- keeping Auckland's communities resilient and prepared for any interruption to electricity supply.

28.26 The region has a strategic stake in all electricity planning for Auckland. The city is in for a prolonged period of risk to security of supply, which will have significant consequences for Auckland residents and businesses. Security of supply needs to be placed high on the regional planning agenda. To achieve strong grid and distribution reliability Auckland requires a long-term (25-year) city-wide strategy for maintaining, ahead of growth, a robust security standard. To deliver this strategy will require the Auckland industry players to collectively plan for transmission corridors and distribution

18 Resource Management (Energy and Climate Change) Amendment Act 2004, section 5 amended the Resource Management Act 1991 by adding sections 7(ba), 7(i), and 7(j).

19 Energywise funding delivery partners (available at www.energywise.govt.nz, accessed February 2009).

20 Ministry for the Environment, "Urban Design Case Studies: Local Government" (available at www.mfe.govt.nz, accessed February 2009).

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connections, and achieve an appropriate common security of supply standard for Auckland. The Auckland Council must have the capacity to monitor the organisations and their plan and enable the plan's delivery to ensure Auckland's needs are being met.

28.27 The Commission is of the view that Auckland needs a collective "voice" to advocate the region's needs to the electricity suppliers and regulators. The Auckland Council should work closely with consumers, the industry, and central government agencies to develop a climate change and energy strategy for the region. It should, from time to time, retain its own expertise to review the performance of the various organisations including Transpower, Vector, and the Electricity Commission, to ensure security of supply.

Recommendation

28A The Auckland Council should work closely with consumers, the industry, and central government agencies to develop a climate change and energy strategy for the region, including monitoring and reviewing electricity security of supply performance, and industry planning and regulation impacting the Auckland region.

29. Civil Defence, Rural Fires, and Resilience

29.1 This chapter considers the local governance arrangements to address Auckland’s disaster resilience. In Auckland, possible disasters include natural disasters (e.g. tropical cyclones, tsunami, and volcanic eruptions), technological disasters (e.g. electricity supply failure (see Chapter 28, “Electricity”)), and biological emergencies (e.g. human and animal epidemics).¹ Among the most likely disasters are tropical cyclones and flooding. A recent training exercise was based on a scenario of a volcanic eruption;² however, this is not a high probability risk. Resilience in the face of gradual changes such as climate change, as distinct from sudden disasters, is discussed later in this chapter.

29.2 Rod Oram, in “Auckland 2060”, a futuristic “think piece” written for the Commission, imagined some future disasters and new responses that might occur 50 years into the future:

When things go wrong ... they can do so in spectacular fashion. Last week, a nano-biotechnology plant in Rodney suffered a serious failure.

A huge global response kicked in almost instantaneously. Thanks to the power of Web 17.0, our emergency services were helped from around the world to model the potential disaster in real-time in virtual reality. So, thankfully no crisis developed. A monitoring drone is still hovering high in the sky over the site. It’s directing the army of robots still seeking out and capturing the escaped nano-particles with the help of overseas expertise.³

And, moving from the technological to the natural world,

Last night’s storm ... had the emergency services out. As expected, climate change has brought a 40-cm rise in sea level in the past 50 years. And weather events are more extreme and frequent. The good news is temperatures are only a couple of degrees higher.

We’ve built well to adapt but we always worry about storm surges. And we worry a lot about the unexpected. Just a month ago, severe earth tremors along the Kerepehi Fault – under the Hauraki Plain and into the Firth of Thames – caused a series of small tsunamis. They did a lot of damage both sides – Seabird Coast and the Coromandel – and up to the eastern beaches of Waiheke.⁴

1 Auckland Region Civil Defence Emergency Management Group, *Auckland Region Civil Defence Emergency Management Group Plan*, 2005, Annex A4, pp. A4-1 to A4-22, lists these hazards and risks in the Auckland region, among others (available at www.auckland.cdemg.org.nz).

2 Exercise Ruaumoko ’08, see www.exerciseruaumoko.co.nz/

3 Oram, Rod, “Auckland 2060”, in Royal Commission on Auckland Governance, *Report, Volume 4: Research Papers*, Auckland, 2009, p. 582.

4 *Ibid.*, p. 577.

29. Civil Defence, Rural Fires, and Resilience

29.3 Whether these ideas become the reality or not, there can be no doubt that effective responses to old and new hazards will be needed in the future if the city is to minimise the damage and disruption from a disaster or emergency.

Resilience

29.4 Resilience is the term given to describe the ability of a community to withstand and recover from stress, disruption, or shock, and rebuild itself. Four areas of activity are commonly identified to build resilience, known as the “4Rs”:

- reduction (of risk)
- readiness (by public and agencies)
- response (at the time of an emergency)
- recovery (after the emergency).⁵

29.5 For the first R – reduction of risk – a range of central and local government policies contribute to disaster resilience. Well-known examples include earthquake strengthening of buildings, planning controls to avoid development in hazard areas, and spare capacity in lifeline utilities, for example by providing additional water storage and spare electricity and telecommunications circuits. (Lifeline utilities are the essential infrastructure and services that support the life of communities. They include services such as water, wastewater, stormwater, telecommunications, electricity, and gas, as well as transport networks such as road, rail, airports, and ports.)⁶

29.6 The two Rs of readiness and response require collaborative action between councils to address emergencies, and these are the main focus of this chapter.

29.7 The last R, recovery, is important to councils, especially as councils own infrastructure such as roads and bridges that are vulnerable to hazards. The rebuilding costs can be extremely high and necessitate radical revision of annual budgets after a disaster. The Commission considers that if governance of civil defence emergency management (“CDEM”) is adequate to cover the acute stage of an emergency, it will be adequate to deal with recovery.

5 *National Civil Defence Emergency Management Strategy 2007*, Department of Internal Affairs, Wellington, 2008, p. 5 (available at [www.civildefence.govt.nz/memwebsite.NSF/Files/National_CDEM_Strategy/\\$file/National-CDEM-strategy-2008.pdf](http://www.civildefence.govt.nz/memwebsite.NSF/Files/National_CDEM_Strategy/$file/National-CDEM-strategy-2008.pdf), accessed January 2009).

6 Ministry of Civil Defence and Emergency Management website, www.civildefence.govt.nz/memwebsite.NSF/wpg_URL/For-the-CDEM-Sector-Lifelines-Index?OpenDocument, accessed January 2009.

Civil Defence Emergency Management Act

29.8 Emergencies are addressed by local government through a statutory framework contained in the Civil Defence Emergency Management Act 2002 (“CDEM Act”). The CDEM Act establishes a central government agency, the Ministry of Civil Defence and Emergency Management, and also imposes CDEM responsibilities on local authorities. Responsibility for CDEM is thus split between local and central government.

29.9 The purposes of the CDEM Act include to

- promote the sustainable management of hazards (as that term is defined in the Act) for the social, economic, cultural, and environmental well-being and safety of the public and also for the protection of property
- encourage communities to achieve acceptable levels of risk
- plan and prepare for emergencies, response, and recovery
- require local authorities to coordinate, through regional groups, planning, programmes, and activities related to CDEM by reduction, readiness, response, and recovery.⁷

29.10 The CDEM Act defines “hazard” and “emergency”. A hazard is “something that may cause, or contribute substantially to the cause of, an emergency”, in which respect,

emergency means a situation that—

- (a) is the result of any happening, whether natural or otherwise, including, without limitation, any explosion, earthquake, eruption, tsunami, land movement, flood, storm, tornado, cyclone, serious fire, leakage or spillage of any dangerous gas or substance, technological failure, infestation, plague, epidemic, failure of or disruption to an emergency service or a lifeline utility, or actual or imminent attack or warlike act; and
- (b) causes or may cause loss of life or injury or illness or distress or in any way endangers the safety of the public or property in New Zealand or any part of New Zealand; and
- (c) cannot be dealt with by emergency services, or otherwise requires a significant and co-ordinated response under this Act.⁸

29.11 These definitions give CDEM a very wide mandate to address the effects of natural hazards, potential pandemics such as bird flu, terror attacks, and failures of utilities such as water supplies or electricity distribution among other things.

Central government agencies involved in civil defence emergency management

29.12 Central government takes responsibility under the CDEM Act for identifying hazards of national significance, and publishing national strategies and plans.⁹ It has published

⁷ CDEM Act 2002, section 3(a)–(d).

⁸ CDEM Act 2002, section 4.

⁹ CDEM Act 2002, section 8(2)(b), (c), and (d).

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a *National Civil Defence Emergency Management Strategy 2007*, which sets out five principles to guide action and underpin the success of CDEM in New Zealand:

- individual and community responsibility and self-reliance
- a transparent and systematic approach to managing the risks from hazards
- comprehensive and integrated hazard risk management
- addressing the consequences of hazards
- making best use of information, expertise, and structures.¹⁰

29.13 Central government also monitors the performance of CDEM groups and manages national civil defence emergencies, as well as taking wider roles, for example through security agencies in relation to terrorism, health agencies in regard to pandemics, and State-owned enterprises in regard to electricity generation and distribution.

Local government agencies involved in civil defence emergency management

29.14 The CDEM Act imposes a duty on every regional council and territorial authority to plan and provide for civil defence emergency management within its district. However, the councils do not act individually. The Act requires regional councils and territorial authorities to form CDEM groups in each region.¹¹

29.15 Functions of a CDEM group include to

- identify, assess, and manage relevant hazards and risks; consult and communicate about risks; identify and implement cost-effective risk reduction
- provide suitably trained and competent personnel, including volunteers, and an appropriate organisational structure for effective civil defence emergency management in its area
- provide material, services, information, and any other resources for effective civil defence emergency management in its area
- respond to and manage the adverse effects of emergencies in its area and carry out recovery activities
- promote and raise public awareness of, and compliance with, the CDEM Act
- develop, approve, implement, and monitor a CDEM group plan.¹²

29.16 A CDEM group operates in Auckland, with all eight councils participating. The Auckland group's political governance comes from councillors representing each council, who meet regularly at CDEM group meetings, as a joint standing committee of the

¹⁰ *National Civil Defence Emergency Management Strategy 2007*, pp. 6–7.

¹¹ CDEM Act 2002, section 12.

¹² CDEM Act 2002, section 17.

constituent councils.¹³ Budgets are approved for the expenses of the group and funded on an agreed basis by the councils.¹⁴ Budgets have increased significantly in recent years, reflecting an increase in group activities, to cover increased staff and the opening of a group emergency operations centre in 2008. The budget for 2008–09 was \$1.7 million.

29.17 Executive governance of the Auckland Region CDEM Group is undertaken by a Coordinating Executive Group (“CEG”), which nominally comprises the chief executive of each council, but is usually attended by second- and third-level managers deputised by the chief executives.¹⁵ In addition, the CEG includes representatives from New Zealand Police, New Zealand Fire Service, St John, Auckland Regional Public Health Service, the three district health boards, Auckland Engineering Lifelines Group, and the Auckland region’s CDEM group controller as full voting members. The Ministry of Civil Defence and Emergency Management has a non-voting representative. Various subcommittees are set up to deal with particular “portfolios” such as public education and risk reduction.

29.18 Routine work of the group is done in-house by six employees, who are employed by Auckland Regional Council (“ARC”), although they report to the CEG.

29.19 The group has adopted the Auckland Region CDEM Group Plan. This sets the strategic direction, operation, and administrative arrangements for CDEM in Auckland. It expresses its vision as “A resilient Auckland region”, with resilience describing as a prepared community that bounces back quickly after an emergency.¹⁶

Territorial authorities and civil defence emergency management

29.20 As well as contributing to the group, individual territorial authorities maintain their own CDEM organisations. Throughout the region, 18 people are employed by territorial authorities in specific CDEM roles. These people might be described as facilitators. Many more council staff participate on an occasional basis in CDEM training and provide the bulk of the workforce during emergencies.¹⁷ Each territorial authority pays the costs of its local CDEM effort, in addition to its contribution to the group budget.

29.21 A degree of local autonomy within a region is consistent with the CDEM Act. For example, the Act allows for a person nominated by a group, or the mayor of a city or district, to declare a state of emergency.¹⁸ While mayors are limited to declaring a state of emergency within their own districts, the person appointed by the group may declare in respect of one or more districts.

13 CDEM Act 2002, section 12.

14 Auckland Regional Council pays 35% of the group budget, and the territorial authorities share the balance between them, shared pro rata according to population.

15 CDEM Act 2002, section 20 describes functions of CEGs.

16 *Auckland Region Civil Defence Emergency Management Group Plan*, section 2.2.1, p. 15. The section expands on the concept of resilience.

17 Auckland City Council, for example, has three full-time CDEM staff, and another 140 staff who are familiar with the operations centre and would assist in an emergency.

18 CDEM Act 2002, section 25.

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29.22 There is also a general requirement in the CDEM Act for local authorities to plan and provide for CDEM within their districts.¹⁹ This could be satisfied by a comprehensive group plan supplemented by simple documentation covering any additional needs of each district. However, the Auckland councils have each provided an elaborate local CDEM plan for their districts, following a common template.²⁰ The local plans emphasise local operational response and recovery activities for local emergencies, and procedures for transferring responsibility to the CDEM group for an emergency that becomes regionally significant.

29.23 The North Shore City CDEM Local Plan is a typical example. It states hazards applicable in North Shore City, and operational principles and arrangements, including recruitment of volunteers.²¹ The plan also lists the membership of the North Shore City Welfare Advisory Group (“WAG”), whose purposes are to provide expertise and guidance, to develop and implement individual welfare response plans, and to participate in training. Members of the WAG include, for example, Age Concern, Asian Liaison Office, Auckland University of Technology, Awataha Marae, Citizens Advice Bureau, various churches, and representatives of Government welfare departments.²²

29.24 The WAG and the volunteers are examples of local outreach and integration of CDEM into the community. These fit into the national CDEM strategy principle of individual and community responsibility and self-reliance, but they do not necessarily need to be arranged by territorial authorities. The Commission considers they might just as effectively be arranged by the Auckland Region CDEM Group, and indeed the local WAGs overlap with the group welfare advisory effort.

Submissions to the Commission

29.25 The submissions on CDEM are summarised in Volume 3 of the Commission’s report, Chapter 20, “Emergency management and disaster resilience”. Relatively few submitters commented on CDEM. Of those who did, most favoured the regional council being responsible for all CDEM. Few gave detailed reasons; however, one thought a regional committee would function better than the current joint committee structure of the CDEM group. Other points made by submitters included the need to ensure that emergency planning is considered as part of wider planning processes focused on transport, health services, police, ambulance, and fire.²³

29.26 Auckland International Airport Ltd noted that the airport is a “lifeline utility” identified in the CDEM Act. The company said that civil defence planning is complex

19 CDEM Act 2002, section 64.

20 *Auckland Civil Defence Emergency Management Group Plan*, section 3.1.5. p. 51 calls for local plans.

21 Keay, David and Dearing, Rodney, *North Shore City Civil Defence Emergency Management Local Plan 2005*, North Shore City Council, North Shore City, 2005, section 2.3, pp. 2–5 and section 4.1, p. 12 (available at www.northshorecity.govt.nz/PDFs/Civil%20Defence/NSCD-local-plan.pdf, accessed January 2009).

22 *Ibid.*, section 5.4, p. 20.

23 Other submissions called for better funding for surf lifesaving and the rescue helicopter, issues that were addressed by Parliament in the Auckland Regional Amenities Funding Act 2008. The Commission makes no recommendation on the matter.

and resource-intensive, with duplication of human resources across lifeline utilities and territorial authorities. It suggested combining existing resources, which would also create fewer bodies, and increase coordination and communication. The airport company's submission called for simplified governance arrangements and improved city-wide focus and strong leadership, based in part on the deficiencies the company saw in CDEM.²⁴

Overview of civil defence emergency management arrangements in Auckland

29.27 The Commission agrees with Auckland International Airport that current CDEM governance is complex. The Commission considers that CDEM arrangements are unnecessarily complex, given the opportunities to regionalise under the CDEM Act.

29.28 The complexity is mainly because of the overlapping organisations of the regional CDEM group and the territorial authorities. The Commission believes that the organisations are not well integrated, and therefore the overall CDEM effort in Auckland region leads to inefficiency and possible loss of operational effectiveness.

29.29 Operational effectiveness has not been tested in an actual emergency in Auckland region since the current arrangements were put in place, so it has not been put to the acid test. A regional training exercise "Ruaumoko" was held in 2008, which was generally considered a success in terms of testing and developing response capabilities. Of issues relevant to governance, there were two important findings:

- The leaders of the response at regional and national levels should be more clearly identifiable to agencies actively involved and more prominent to the community.
- There needs to be greater clarity and mutual understanding of the roles and functions of regional CDEM Group Emergency Operations Centres in coordinating across and supporting the delivery by local Emergency Operations Centres.²⁵

29.30 Questions about leadership were earlier raised in 2006 in a report by Kestrel Group Ltd, a company commissioned by the Auckland Region CDEM Group to review the capacity and capability of the group to respond to a disaster impacting the Auckland region.²⁶

29.31 Kestrel said in its report that the group's organisational structure was not providing enough strategic direction for the CDEM sector in the Auckland region. The regional CDEM group, and particularly the CEG, needed to be examined to ensure they were operating at a strategic, direction-setting level rather than focusing on detailed operational issues. Kestrel said that the group had no profile or "presence" from the perspective of external

24 Submission to the Royal Commission on Auckland Governance from Auckland International Airport Ltd, p. 29. (All submissions are available at www.royalcommission.govt.nz.)

25 Ministry of Civil Defence and Emergency Management, *Exercise Ruaumoko '08: Final Exercise Report*, 2008 (available at [www.civildefence.govt.nz/memwebsite.nsf/Files/National%20Exercise%20Programme/\\$file/ExRuaumoko-FINAL-REPORT-Augo8.pdf](http://www.civildefence.govt.nz/memwebsite.nsf/Files/National%20Exercise%20Programme/$file/ExRuaumoko-FINAL-REPORT-Augo8.pdf), accessed January 2009).

26 Kestrel Group Ltd, *Assessment of the Capacity and Capability of the Auckland Region CDEM Group to Respond to a Disaster Impacting the Auckland Region*, Volume 1, August 2006 (available at www.auckland.cdemg.org.nz/pdf_files/Kestrel%20Akl%20CapacityandCapability%20Volume1.pdf, accessed January 2009).

29. Civil Defence, Rural Fires, and Resilience

agencies asking, “Who are the Group?”, “Who do I contact?”, “Who is in charge?”, “Who is responsible?”²⁷ Kestrel’s recommendation was to

Increase the strategic effectiveness of the CDEM Group at both governance (joint committee) and executive management (CEG) levels by clarifying roles, responsibilities and accountabilities.²⁸

29.32 No significant changes have been made in response to the Kestrel recommendation quoted. This may be because of the territorial authorities seeing the group as superfluous in most emergencies, because they expect their local CDEM organisations will generally provide the practical response. This explanation would fit with Kestrel’s finding:

The lack of ownership of and commitment to regional CDEM by CDEM Group partners has made it difficult to provide direction to the wider CDEM sector and implement agreed regional projects. In a sense, the CDEM Group is too ‘virtual,’ and there is too much reliance on goodwill and commitment from a few agencies to make things happen.²⁹

29.33 An example of uncoordinated action by territorial councils relates to emergency warning systems. Kestrel commented that councils were providing their own public emergency warning systems because of “a perceived lack of leadership from the Group and MCDEM [Ministry of Civil Defence and Emergency Management] on this issue”. Kestrel said that this was likely to lead to different warning mechanisms, processes, and standards across the group, and urgent coordination and leadership was required to achieve a group-wide agreement as to what needed to happen and by when.³⁰

29.34 Three councils have put in place tsunami warning systems, each using different technology (see Box 29.1). It seems to the Commission that having three different warning systems raises the public education costs inordinately. Warning systems can be effective only if they are intelligible to the people who need to heed the warning. Investment in public education might well exceed investment in the hardware. An all-of-Auckland approach could be supported by ongoing public education through mass media, to a degree that the fragmented approach cannot.

Staff arrangements

29.35 There are two other levels of CDEM organisation where leadership is fragmented and needs to be improved. The group controller is a part-time appointee, with no regular line management connection to other CDEM staff in the group or in the councils. The Commission is aware that the group controller has extensive statutory command and control powers in an emergency, but considers that overall leadership would be enhanced if the group controller had a continuous management relationship with the local controllers and permanent staff in between emergencies.

27 Ibid., p. 29.

28 Ibid., p. 37.

29 Ibid., p. 29.

30 Ibid., p. 46.

Box 29.1 Tsunami warning systems

- Rodney District Council has implemented a tsunami warning system using mass text messaging to mobile phones. Residents can opt in to receive text notification of emergencies direct to their mobile phones. The messaging service will be activated in the event of a tsunami, or an impending localised emergency such as a cyclone, or when a civil defence emergency is likely to be declared. Subscribers register from their mobile phone by texting a council number.
- North Shore City Council has put in place a telephone-based tsunami warning system. Around 15,000 householders living in vulnerable areas were invited to opt in to the system by entering their details onto a website. When a tsunami is declared by national civil defence authorities, the system is activated to automatically send telephone calls to those listed on the alert database. The automated voice message will announce a civil defence tsunami alert, and the listener will be directed to immediately tune into radio stations for emergency instructions.
- Waitakere City Council has constructed a tsunami warning system based on sirens on poles. Thirty tsunami siren systems have been installed in 13 coastal locations around Waitakere. The sirens sound three different “alert”, “evacuate”, and “all clear” signals to inform people within earshot of tsunami risks.

Sources: Rodney District, North Shore City, and Waitakere City websites, accessed November 2008.

29.36 The permanent CDEM staff is also fragmented. The group staff report to the CEG, but work within the ARC administration, which has the potential to raise tensions when the CEG and ARC have competing interests. The staff employed by the city and district councils have no managerial connection with each other or with the group staff. While there appears to be a high degree of cooperation and goodwill between the various organisations at staff level, a single management and administration structure would have considerable value, in terms of a larger group having greater depth of experience and ability to specialise and in terms of building the team work that is essential to deal with an emergency.

Long-term resilience issues

29.37 Building resilience requires the management of sudden disasters, discussed above, and also requires reduction of long-term risks due to gradual changes in the environment. Climate change, peak oil, and the challenges of a city that may be carbon-constrained in future also require a response from local government. These types of issues are addressed through long-term sustainability planning rather than emergency management. Regional governments in other countries have begun to plan for such things as climate change (see Box 29.2).

29.38 The ARC has announced that it is developing a Regional Response to Climate Change and a Regional Energy Strategy, for release in November 2009 as part of the review

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Box 29.2 The King County Climate Plan

King County in Washington State – a large US county with a population of over 1.8 million – has developed a work plan for reducing greenhouse gas emissions and preparing the region for the impacts of climate change:

King County will develop clear greenhouse gas accountability and limits, and will implement practical, meaningful policies and investments in the following areas: climate-friendly transportation choices; clean fuels, clean energy and energy efficiency; and land use, building design and infrastructure. Many extraordinary efforts are underway on these counts, but we can and must be more ambitious. Bold planning and investments in these areas – i.e. electrified transportation, more public transit, greenhouse gas accounting in capital projects, and expansion of green building practices – are truly the foundation of our bridge to significant greenhouse gas emissions reduction. Simply put, to reduce greenhouse gas emissions we need cleaner cars, fewer cars and cleaner infrastructure.

The list of solutions that King County has developed in response to climate impacts information ranges from the Brightwater reclaimed water “backbone,” which will provide relief to the region’s water supply in context of predicted drought, to planned improvements to roads, bridges and seawalls, in context of sea level rise and flooding. It is important to note that in all of these decisions, climate change information is but one factor, and that the decisions King County has made so far also seek to maximize additional benefits of actions to public health, economic development, and environmental protection.

Source: Excerpts from executive summary, *2007 King County Climate Plan* (available at www.kingcounty.gov/transportation/CommuteSolutions/Climatechange.aspx, accessed November 2008).

of the regional policy statement. This initiative is positive; however, the Commission considers that implementation of the eventual plans will not be straightforward, especially if it relies on other agencies. A stronger approach would be to restructure regional governance so that the agency that draws up the plans is also the agency that commissions development. The CDEM governance structure proposed by the Commission covers this aspect.

The Commission’s proposals

29.39 The Commission considers that CDEM is best administered regionally. Unified governance would facilitate greater clarity of vision for all those involved and it could better utilise the resources available for CDEM, which are currently fragmented between the councils. Given the Commission’s overall recommendation for the reorganisation of local government in Auckland, by the creation of an Auckland Council as a unitary authority to govern the region, CDEM is an appropriate function of the Auckland Council.

29.40 Emergency management in any part of the Auckland region can be provided on a regional basis. A regional system could maintain emergency operations centres in different parts of the region to manage a range of events. Activities such as recruitment of volunteers and public education can be provided on a regional basis, although there may be a case for the regional body to have local service centres and field workers.

29.41 The Commission proposes that CDEM should be governed by a committee of the Auckland Council, chaired by the Mayor of Auckland. This committee would take over the statutory role of the group joint committee. The involvement of the mayor would be important to give credibility and urgency to the CDEM effort. Members of the committee might include local council chairs.

29.42 Below this, the CEG would be retained, chaired by the Auckland Council Chief Executive. As with the mayor's involvement, the chief executive's involvement is important to give status to the CDEM effort. It is important that the CEG should retain the involvement of emergency services and other agencies in the high-level preparation for emergency management. Involvement of the emergency services at this level is a strength of the existing system that should continue.

29.43 The regional CDEM administration would be headed by the civil defence controller, a full-time position that would report to the chief executive. All of the CDEM staff currently employed by various councils would be brought under the management of the controller.

29.44 The Commission envisages that a single CDEM plan, training programmes for staff, volunteer recruitment programmes, and standard operating procedures would be developed for the region by Auckland Council. Local councils would be involved in CDEM planning to help establish local perspectives and preferences. Implementation would be the responsibility of Auckland Council, including implementation by decentralised staff of Auckland Council with roles, for example, in public education, organising volunteers, and management of sub-regional emergency operations centres. Powers in local matters could be delegated by Auckland Council to local councils where appropriate.

Forest and rural fires

29.45 A further aspect of resilience relates to forest and rural fire protection. The New Zealand Fire Service provides firefighting cover to urban fire districts, which in the case of Auckland largely correspond to the areas with high-pressure reticulated water supplies. In urban districts, local authorities assist the fire service by maintaining water supplies, and inspect buildings for fire safety, but have no direct firefighting role.

29.46 Where there is no urban fire district, firefighting coverage is provided by rural fire authorities created under the Forest and Rural Fires Act 1977. Under the Act, territorial authorities play an important role in rural firefighting, either as independent fire authorities, or in conjunction with the Department of Conservation, Ministry of Defence, and forest owners, in various local arrangements. Most rural fire authorities maintain voluntary rural fire forces to provide firefighting capability in the rural area of the fire

29. Civil Defence, Rural Fires, and Resilience

authority. In Auckland region, all territorial authorities have a role in rural fire protection, as all include rural land (the Hauraki Gulf islands in the case of Auckland City Council.) Waitakere City Council has a combined approach with Rodney District Council. Franklin District Council also has a significant firefighting role, as might be expected with its large rural district, including a number of voluntary rural fire forces.

29.47 Under the proposed new local governance structure, Auckland Council will have all of the powers of territorial authorities conferred by statute, including rural fire protection responsibilities under the Forest and Rural Fires Act. The Auckland Council would appoint a principal rural fire officer, who would advise the council on all relevant matters, including preparation of a rural fire plan. The Commission envisages that there would be additional staff, working at some local council offices, appointed as rural fire officers to carry out routine work. The Commission considers that this role should not be conferred directly on local councils, but sees a likely role for the local councils under delegated authority. The particular tasks that might be delegated will ultimately be decided by Auckland Council, and the Establishment Board will no doubt also give some thought to it.

Recommendations

- 29A** The Auckland Council should govern civil defence emergency management (“CDEM”) on a regional basis, through a committee chaired by the Mayor of Auckland. The committee might include some local council chairs.
- 29B** The Co-ordinating Executive Group should be retained and chaired by the Auckland Council chief executive. Representation of police, fire, ambulance, and other emergency and social services on the Co-ordinating Executive Group should continue.
- 29C** The civil defence controller should head the regional CDEM administration. This should be a full-time position reporting to the chief executive of the Auckland Council, with all CDEM staff reporting to the controller.
- 29D** The Auckland Council should develop a single CDEM plan, training programme for staff, volunteer recruitment programme, and standard operating procedures for the region.
- 29E** Local councils should be involved in CDEM planning and implementation to the extent delegated to them by Auckland Council.
- 29F** The Auckland Council will have all the powers of territorial authorities conferred by statute for rural fire protection, including those under the Forest and Rural Fires Act 1977.

Transition

- 29G** At the establishment date of the Auckland Council, the interim chief executive should be in a position to chair the Co-ordinating Executive Group supported by an interim civil defence controller.

30. Solid Waste

30.1 This chapter addresses solid waste management, which includes collection and disposal of refuse, the operation of refuse transfer stations and landfills, and the management of closed landfills. It also covers waste minimisation, which is accomplished by reducing packaging, and by reuse, recycling, and resource recovery. Solid waste excludes wastewater and sewage, the management of which is discussed in Chapter 26, “The Three Waters”.

30.2 While this chapter focuses on council functions, it should be noted that there is significant private sector involvement in solid waste management. Private companies own and operate refuse collection systems, transfer stations, and landfills. Some private sector activity derives from contracts let by the territorial authorities, but there are also large solid waste management businesses that are not connected to councils. The private sector is also involved in green waste collection and composting, and clothing collection, reuse, and recycling.

30.3 The volume of waste going to landfills (as well as the adverse effects of such waste) is significant in Auckland, as it is in the rest of New Zealand.

About 3.2 million tonnes of waste goes to landfills each year in New Zealand and, according to the Ministry for the Environment, each year we throw away about \$250 million worth of potentially reusable resources. Not only is this a huge waste of resources but also landfills contribute to New Zealand’s greenhouse gas emissions and are a significant source of toxic leachate¹

Central government policies

30.4 The Waste Minimisation Act 2008, discussed below, is the most recent of a number of central government policy initiatives. The New Zealand Waste Strategy (2002) sets targets for reducing a range of waste streams as well as for improving landfill practices by 2010. The strategy is not binding on territorial authorities.

30.5 The New Zealand Packaging Accord (2004) is a voluntary agreement by industry with the Government to take responsibility for the complete life cycle of packaging. Producers and brand owners agreed that when they developed new packaging they would give higher regard to factors such as using fewer materials and using recycled materials. They also agreed to look at production efficiency, and the potential for recycling into other products after the packaging was no longer needed. The packaging accord has been given credit for significant reductions in packaging waste.²

1 Dr Russel Norman, MP, from the third reading debate in Parliament of the Waste Minimisation Bill, 11 September 2008, available at www.parliament.nz/en-NZ/PB/Debates, accessed February 2009.

2 Lester Thorley, “Packaging Accord report shows New Zealanders well on the way to reducing waste”, Ministry for the Environment media release, 15 October 2008.

30. Solid Waste

Local government role

30.6 Local government has an important role in solid waste management under the Waste Minimisation Act 2008. Under the Act, territorial authorities must promote effective and efficient waste management and minimisation within their districts. They do so to fulfil the purposes of the Act, which are to protect the environment and provide environmental, social, economic, and cultural benefits.³ Local government involvement in collecting and disposing of waste has a separate and much older rationale, which is to safeguard public health and amenity. For all these reasons, it is clear to the Commission that local government should have an ongoing role in solid waste management.

30.7 The Waste Minimisation Act requires territorial authorities to formulate waste management and minimisation plans.⁴ They are required to consider, in making their plans, six methods of waste minimisation in this order of importance:

- (1) reduction (lessening waste generation)
- (2) reuse (reuse of products in their existing form)
- (3) recycling (making into new products)
- (4) recovery (extracting materials or energy for further use, or composting)
- (5) treatment (changing the volume or character of waste for safe disposal)
- (6) disposal (deposit of waste on land set apart for the purpose, or incineration).⁵

30.8 Each of the Auckland territorial authorities has a waste management plan formulated under earlier legislation.⁶ These are stand-alone plans for each territorial authority. Councils in Auckland have not taken up the option under the Waste Minimisation Act of preparing joint plans.⁷ This is another example of territorial authorities failing to cooperate. However, the councils' plans are similar in many respects, and the possibility of joint action is contemplated in most of the plans.

30.9 An important aspect of improved waste minimisation is public participation, which depends on public knowledge and understanding of available options and of the systems put in place by local authorities. Councils have adopted different systems with bags, bins, and tubs in different sizes and colour schemes, different charging regimes, and different collection frequencies. Opportunities have been lost to standardise the hardware and systems throughout the region, which the Commission considers would assist in building public knowledge and participation. For example, if the same system were adopted in

3 Waste Minimisation Act 2008, sections 3 and 42.

4 Waste Minimisation Act 2008, sections 42 and 43.

5 Waste Minimisation Act 2008, section 44.

6 Local Government Act 1974, Part 31, sections 538 and 539 contained planning requirements similar to the Waste Minimisation Act.

7 Waste Minimisation Act 2008, section 45.

each district, television and newspaper publicity to promote household participation would be more cost-effective.

Quantities of waste

30.10 Comprehensive statistics for the Auckland region of the quantities of waste and recyclables collected and sent to landfill or other destinations were not obtainable by the Commission.⁸ Although territorial authorities held statistics for their own areas, it was not possible to aggregate these into regional statistics – the figures measured different waste streams and were not comparable.

30.11 The Commission considers that an important goal in the future should be to improve data collection. As noted above, there is a large private sector involvement in waste management, and councils do not necessarily have knowledge of all activities. However, improvements could be made. In 2007, a report from the Office of the Auditor-General commented on the importance of such information, in a report on waste management plans:

Most plans included some information about the quantity and composition of waste in the district, although fewer identified how much waste was expected in the future. While baseline information about waste data and composition is an important starting point for preparing a waste management plan, territorial authorities also need to consider how much waste they can expect in the future so they can better plan services to provide for future demand.⁹

30.12 The overall waste stream in the Auckland region seems to be increasing slightly. For the period since 2002, figures obtained from three of the city councils indicate a trend towards increased recycling (see Table 30.1).

Waste disposal levy

30.13 The Waste Minimisation Act introduced a waste disposal levy, which will affect solid waste management by all parties, including territorial authorities. The levy is paid to the Government by the operators of waste disposal facilities at the rate of \$10 per tonne.¹⁰ Half the levy money collected is paid by the Government to territorial authorities (shared pro rata by population) to be spent on promoting and achieving waste minimisation. The

8 The Commission inquired with the Ministry for the Environment and Auckland Regional Council, but neither had up-to-date regional statistics. One difficulty of compiling statistics is that data have been collected in the past by agencies using different definitions of waste.

9 *Waste management planning by territorial authorities*, Office of the Auditor-General, Wellington, 2007, paragraph 2.64 (available at www.oag.govt.nz/2007/waste-management, accessed January 2009).

10 Waste Minimisation Act 2008, section 27 states \$10 per tonne or other prescribed amount.

30. Solid Waste

Table 30.1 Refuse and recycling quantities for three Auckland councils

Year to 30 June	2003	2004	2005	2006	2007	2008
North Shore City¹						
Total refuse (tonnes)			27,665	26,334	26,055	27,405
Total recycle (tonnes)			20,852	22,367	24,938	24,314
Auckland City²						
Total refuse (tonnes)		83,864	84,331	87,998	87,026	84,611
Total recycle (tonnes)		37,618	39,537	41,119	41,095	42,910
Manukau City³						
Total refuse (tonnes)	70,328	73,776	81,136	84,932	88,613	88,115
Total recycle (tonnes)	15,794	18,125	19,750	20,536	20,713	21,409

Sources: ¹North Shore City Council, December 2008; ²Auckland City Council, October 2008; ³ www.manukau.govt.nz, accessed January 2009.

remainder of the levy money forms a contestable fund for waste minimisation projects available to councils and the private sector.¹¹

30.14 The levy has two objectives: to raise revenue, and to provide incentives for waste reduction. For councils, the major implication will be the capital funding that becomes available for waste minimisation. For everyone who produces waste, the effect of the levy will be to increase landfill charges. This is expected to provide an incentive for people to reduce quantities going to landfill, for example by changing business practices to reduce waste output.

30.15 The money available to councils will be significant. Assuming 3.2 million tonnes (as quoted in paragraph 30.3) is disposed of to landfill nationally in the first year, the levy revenue at \$10 per tonne will be \$32 million. Half will be paid to councils after deduction of costs, leaving say \$15 million, of which Auckland councils on a pro rata population basis will receive \$4.8 million (their share for 32% of the population of New Zealand).

30.16 This calculation overstates the actual sums that will be available, as the levy will probably result in a reduction in waste going to landfills (as it is intended to do), and there is a lack of accurate statistics. But it indicates that there may be significant sums of money available to Auckland councils from the waste minimisation fund. North Shore City Council has separately estimated that its annual return from the levy will be \$800,000.¹² Significant new investment in high-technology methods of waste minimisation might be made if this revenue stream were pooled regionally and invested as a block. Conversely,

¹¹ Waste Minimisation Act 2008, sections 31, 32, and 38.

¹² Report on the Waste Minimisation Act prepared for Infrastructure and Environment Committee of North Shore City Council, 16 October 2008, pp. 1 and 5.

if the money were split between each of the existing councils, new investment might be discouraged as it might not be possible for any of them to realise significant economies of scale.

30.17 The contestable fund, representing the other half of the levy revenue, might be more readily secured by a “whole of Auckland” initiative, rather than by individual territorial authorities. The potential scale of an Auckland regional waste minimisation proposal could make it more competitive.

Advances in technology

30.18 Technology recently developed to sort materials recovered from kerbside recycling offers opportunities to make recycling more efficient. This technology requires large capital investment, but it can yield significant economies of scale by replacing labour-intensive manual sorting methods with mechanised sorting.

30.19 Auckland and Manukau City Councils have separately contracted with Visy Recycling NZ Ltd to introduce this new technology to Auckland. This has resulted in Visy constructing a new materials recovery facility (“MRF”) at Onehunga to sort and recover recyclables collected at kerbsides.¹³ The scale and cost of this facility, an investment of about \$24 million, was beyond the scope of a single council. Neither council had the volume of material to justify its own plant, but their combined volumes being funnelled through the same company crossed the threshold to make the new sorting technology viable.

30.20 The MRF is complemented by a new kerbside collection system. In 2008, larger 240-litre recycling bins were introduced by Auckland and Manukau City Councils, and collections are now made fortnightly. Sorting is done at the MRF and not at the kerbside, as in the past. Householders put all recyclable material (paper, cardboard, plastics numbered 1 to 7, glass bottles, tins, and aluminium cans) into the one bin which is transported to the MRF for sorting.

30.21 The new system has already produced efficiency gains in Auckland City and improvements in waste minimisation. In the first three months of the new system, quantities of material put out for recycling increased by about 10%, with a corresponding reduction in garbage put out for collection. This was attributed to people finding it easier to recycle because they could now put all recyclables into a single larger bin.¹⁴

30.22 Waitakere and North Shore City Councils have also collaborated in solid waste management. Waitakere City Council operates an MRF at Henderson using older technology and more labour than the Visy facility, but still effectively sorting and recovering large volumes. The Henderson MRF sorts materials from the Waitakere and

¹³ The materials recovery facility is described at www.aucklandcity.govt.nz/council/services/rubbish/mrf.asp (accessed January 2009)

¹⁴ Personal comment from Auckland City Council group manager. (Longer-term trends are not yet apparent.)

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North Shore Cities' kerbside recycling collection.¹⁵ This is one of the few remaining council-owned waste management facilities in the Auckland region, most other councils having privatised or closed their transfer stations and landfills.

30.23 Other councils put less effort into materials sorting and recovery. The Commission does not criticise the various measures and processes of individual councils, but considers that opportunities to improve output and efficiency are being lost, especially in sorting and recovery. This is mainly because of the relatively small scale of the waste stream from each council's district, which does not allow available technology to be adopted efficiently by individual districts. The obvious conclusion is that the waste streams need to be combined, by one means or another.

30.24 Apart from the materials currently being recycled (glass, plastic, paper, etc.), the Commission considers that there are other opportunities for waste streams to be combined and treated as one. One example is organic waste, including food scraps and green waste, which has an estimated volume of 260,000 tonnes per annum, or about one-quarter of the total volume of regional waste going to landfill.

A regional waste management strategy

30.25 The Auckland Mayoral and Chief Executives' Forums decided in July 2006 to sponsor the development of a regional waste management strategy, but no strategy has so far been agreed.

30.26 The Commission's attention was drawn to the need for a regional approach to separation of organic waste from the general waste stream. Organic waste could have a number of end uses including composting and biofuel production. The Commission believes that opportunities like these are not being fully considered because of the fragmented approach of the current governance system. An all-of-Auckland approach is required to implement these kinds of proposals, because they need to be founded on a combined waste stream, capital investment, and a public education campaign to support separate organic collection. Box 30.1 contains an example of an effective regional waste minimisation campaign conducted by the combined efforts of Seattle City Council and King County.

30.27 The efficiency gains available in materials sorting can be contrasted with kerbside collection of garbage or recyclables, where significant new economies are limited. As noted above, the new MRF in Auckland has facilitated fortnightly collections using larger bins. This change has produced efficiency gains in collection. However, beyond this it is generally considered there is little further scope to increase efficiency in the kerbside collection. Most councils have already contracted out kerbside collection to the private sector. The Commission sees value in the continuation of a competitive collection industry with a number of viable contractors able to make competitive tenders. A regional

¹⁵ Some recovered material (for example bicycles, furniture, and toys) are separated for reuse and sold.

Box 30.1 Seattle Natural Lawn Care Program

The following passage illustrates how Seattle City Council has developed and carefully promoted a programme for reducing the environmental impacts of maintaining lawns:

many people currently recognize that the typical urban or suburban lawn can waste valuable resources. Water, fertilizer and pesticides go into maintaining a green lawn that produces large amounts of problematic grass clippings. Motivated by the broader mission of Seattle Public Utilities – which now deals with water conservation, drainage and wastewater issues, as well as solid waste management – we created the Natural Lawn Care program with our partner agency, King County Water and Land Resource Division. Its objective is to take a broad brush approach to changing lawn care habits. The program shows how grasscycling [where lawn clippings are mulched rather than removed], reduced use of soluble fertilizers and pesticides and moderate use of water can create a healthy lawn ecosystem that is much easier on the environment and safer for the people in that environment.

This year, market research indicated that our target audience for this message consists mostly of middle-aged (30 to 65 age range), suburban and urban males. As this effort is becoming regional, we were able to purchase time for a 30-second TV spot that will go to audiences watching Seattle Mariner baseball games. It would be hard to get to our target audience in a better way. The ads use a talking salmon and water protection as a theme, which is timely in light of the proposed endangered species listing of chinook salmon in our region. A mix of radio advertising also is planned for this year.

A great deal of interagency cooperation has gone into creating a coherent message that can be accepted by all the parties. Cooperation leverages agency monies and helps smaller agencies that are working with smaller budgets. It also creates an integrated message that avoids confusion for residents.

*Source: Woestwin, Carl, "Evolution of Home-Based Strategies for Residential Organics", *Biocycle*, May 1998: 37–39.*

approach to solid waste management does not necessarily imply a change to the number of collection contracts let within the region.

Waste and sustainability

30.28 The close connection between solid waste management and broader environmental issues such as sustainability are highlighted by the quotation from the parliamentary debate at the beginning of this chapter, and by the Seattle case study referred to in Box 30.1. In the Seattle example, lawn mulching was promoted as a way to reduce the volume of green waste going to landfills, to reduce the amount of water irrigating lawns, and to cut down the use of pesticides and fertilisers, among other outcomes.

30. Solid Waste

30.29 In Auckland, these environmental issues are not managed together. Territorial authorities are responsible for solid waste, and the Auckland Regional Council is responsible for various environmental matters including water use and quality. All the councils do useful work in publishing tips on sustainable gardening (a search for “garden waste” on most council websites yields numerous relevant articles), but the Commission believes that a broader approach is lacking. In particular, there is no coordination between councils to manage interrelated issues through public education or a media campaign such as that described in Seattle. As a result, opportunities to improve sustainability are being lost on a number of fronts.

Submissions to the Commission

30.30 The submissions on solid waste are summarised in Chapter 16, “Infrastructure”, in *Report, Volume 3: Summary of Submissions*. Solid waste was not commented on in detail by many submitters, perhaps suggesting that solid waste management is not widely perceived to be a problem. In the submissions received, the major issue identified was the fragmentation of investment and management between territorial authorities.

30.31 The Packaging Council of New Zealand made the most detailed submission on the subject. It advocated a regional approach to waste management decisions (which should be consistent with national decisions), together with regional service delivery, saying,

The economics of waste management services, particularly with regards to the recovery of recyclables, is best handled on a regional scale. Without volume recovery operations can be uneconomically viable which potentially compromises the range of materials which can be recovered – this is a situation which is occurring across the Auckland region today.¹⁶

30.32 The Packaging Council acknowledged the value of the Visy MRF in recovering recyclables collected from kerbsides in Auckland City and Manukau City, saying it was testament to how effective waste policies can be implemented when a strategic focus is applied, rather than just a localised solution. However, the Packaging Council left open whether a regional vision needed direction from a regional agency, or could be achieved through joint action by territorial authorities.

30.33 Another submitter favoured a regional agency taking over management of solid waste for other reasons, saying that it was unsatisfactory for the existence of waste facilities to be “simply at the whim of private enterprise.”¹⁷

16 Submission to the Royal Commission on Auckland Governance from Packaging Council of New Zealand, p. 4. (All submissions are available at www.royalcommission.govt.nz.)

17 Submission to the Royal Commission on Auckland Governance from Barry Carter, p. 2.

The Commission's view of improvements required

30.34 The Commission notes that solid waste collection and disposal by councils is generally satisfactory if considered on a day-to-day basis. It appears to the Commission that council collection services are adequately addressing basic public health and the most direct environmental effects, and progress has been made by all councils in waste minimisation in recent years.

30.35 However, the Commission sees many opportunities being lost as a result of the current governance arrangements. Lost opportunities include

- failure to integrate solid waste management with other environmental initiatives
- lack of public education programmes across the region using television and other media, for example in relation to recycling and managing hazardous waste to reduce the waste stream
- failure to provide uniform systems for kerbside collection, which would help the public education effort
- failure to utilise new technologies fully, so that the economies of scale available from region-wide plants are realised.

30.36 These lost opportunities could be recouped by bringing all waste management and environmental management responsibilities under a regional organisation. The Commission agrees with the Packaging Council that the economics of waste management services, particularly the recovery of recyclables, are best handled on a regional scale. This is because of the need to combine the waste streams to achieve cost-effectiveness, and the large investment sums needed for new sorting technology and facilities.

30.37 Arguments for a regional approach are strengthened by the availability of levy money to local authorities under the Waste Minimisation Act. Auckland's share of this money would have optimum value if kept together and invested in regional facilities, rather than being claimed by individual councils. A regional body would be in a good competitive position to make claims on the contestable fund, as it could demonstrate good rates of return on the investment of new capital.

30.38 Given the Commission's overall recommendation for the reorganisation of local government in Auckland – the creation of an Auckland Council as a unitary authority to govern the whole region (see Chapter 14, “The Auckland Council: Key Features”) – solid waste management is an appropriate function of the Auckland Council.

30.39 The Commission envisages that the Auckland Council will produce a regional waste management plan that investigates waste minimisation projects, and integrates solid waste management with other environmental programmes and with service delivery. The possible advantages of creating a council-controlled organisation for solid waste management might be considered. A regional waste management plan should recognise different circumstances in parts of the region, such as the Hauraki Gulf islands, where a different approach might be worked out in consultation with local people. A regional

30. Solid Waste

plan could also recognise and encourage efforts to minimise waste by the community, including not-for-profit groups, which can make a valuable contribution.

30.40 There are other ways to bring about a regional approach. Local councils could use more joint ventures to obtain economies of scale, or a specialised regional waste management agency (along the lines of Watercare Services) could be created. Joint ventures can help improve outcomes, but the Commission considers they are not reliable enough to be a favoured form of governance. And a stand-alone agency, along with local council management, has the disadvantage of possibly isolating waste management from a broader sustainability agenda. The Commission considers that solid waste management can and should be part of a broadly integrated environmental management effort. If a separate solid waste agency were to be created, then its mandate and responsibility would need to include joint action on environmental matters with other agencies.

30.41 An all-of-Auckland approach to waste management is also favoured because of the opportunities for targeted campaigns to recover specific items such as packaging, computers, televisions, and hazardous waste, for reuse, recycling, or return to their manufacturer.

30.42 In the Commission's view, governance by the Auckland Council will meet public needs for waste management. Most people will want waste collection services that are reasonably frequent, reliable, and efficient, with high environmental standards, but will not have strong preferences as to who provides the service. Standard service levels can be worked out by the Auckland Council to meet the needs of most people across the region. Individuals who want additional waste collection services can arrange these privately.

Recommendation

30A The Auckland Council should develop a Regional Waste Management Strategy, including strategies for management of organic waste and integration of waste management with other environmental programmes.