



# Sustainability Themes: Expert Group Papers

August 2006

This paper draws together the discussions held at workshops of seven expert groups, held between July and August 2006. It has been prepared for internal discussion as part of the START project. It reflects a range of views and does not represent official positions of the organisations involved.

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# Preface

The START (Sustaining the Auckland Region Together) project is an opportunity for councils, central government and other stakeholders to work together to determine priority focus areas to make Auckland sustainable and resilient over the long-term.

The scale of the sustainability challenge for the Auckland region is immense, but there are also great opportunities for leadership and reward. START working papers describing 'forces of change in the 21<sup>st</sup> century' identify the shifts and shocks and also the positive transformations that may occur as a result of changing climate, demographics, technology, resource availability, globalisation and worldviews.

START is the Auckland region's opportunity to begin to examine some of these more challenging questions, and to identify transition paths that will secure a more sustainable future. The project is expected to deliver the following outcomes:

- A shared long-term view of the key transformational actions that will make the Auckland region more sustainable, acting as a touchstone for decision-making and activities.
- A sustainability frame and tools to assist central and local government and key corporates to make decisions that are more integrated, prioritised, and resilient.
- Alignment and coordination of efforts to achieve sustainable outcomes, working from the basis of the respective strengths of councils, central government and other stakeholders.
- Future-proofing the Auckland region's development, in particular its built form.

Finally what the START project seeks to initiate is a reconsideration of the way Auckland does business and asks how is it possible to achieve an economic transformation that delivers the best possible life outcomes for everyone, maximises the efficient use of scarce resources, while not degrading further the region's environment and resource base.

## The START expert groups

Development of a sustainability framework for the Auckland region requires the kind of thinking that is not only strategic, but also thought provoking beyond the usual day-to-day thinking. To this end, expert groups were convened to provide a range of perspectives on issues affecting the region and consider these within a 100-year context. Each expert group was asked to concentrate on one of seven illustrative themes, selected for purposes of exploring the nature and scale of actions that might be necessary to develop the region's resilience and sustainability.

Groups, made up of individuals from a range of sectors met over July and August 2006, and debated:

- possible end state goals (where we want to get to);

- current strengths and opportunities, weaknesses and constraints;
- the potential impact of the forces of change; and
- a wide range of actions, both short- and long-term, to move us towards the goals.

The following 'theme papers' are the summary of those discussions. They bring together a wealth of ideas and inspiration. It must be noted that they are not, however, comprehensive, and do not necessarily reflect agreement between experts – the debates in the groups were intended to spark critical and yet constructive thinking about the issues, not to necessarily find consensus. It is pleasing that the findings of the papers often reinforce each other – similar strengths and constraints, and potential actions to achieve sustainability goals are identified in, for example, themes as diverse as cultural diversity, environmental quality and the built environment.

The following common values emerged from the End State Goals identified by the seven theme groups:-

### **1. Identity**

Auckland will have a unique global identity based on its natural, social, cultural and built environments. The fusion and distinctiveness of Auckland's Maori, European, Pacific, Asian and other cultures; the distinct natural landscapes, quality natural and built environments, all reflect the region's diverse cultural heritage and multi-cultural present and Auckland's relationships with the Asia-Pacific region.

A unique global identity is critical, both for giving individuals and communities a sense of identity and belonging, and also in giving Auckland a competitive advantage in a crowded global market e.g. in attracting investment and skilled migrants. Auckland's urban form and the quality of the natural and built environment, along with strong social institutions, and attitudes and values that respect diversity, are all important factors in creating that identity.

### **2. Natural environment**

Auckland will be a world leader in the protection, restoration and enhancement of natural landscapes and ecosystems and in the sustainable management and use of leading edge environmental technologies. This will be underpinned by a values shift towards social and environmental definitions of well-being. Individuals and communities will take responsibility for the stewardship of the natural environment. The built environment will reflect, enhance and allow people easy access to the natural environment. Auckland's natural environment will be instantly recognisable to a global audience.

### **3. Towards a sustainable economy**

As a result of economic transformation initiatives, the Auckland economy has products and mechanisms which will enable progress towards sustainable development.

The Auckland region will be a place where businesses thrive as stewards of natural resources and ecosystems and lead the way in developing sustainable technologies and services.

The Auckland region is resilient and efficient with regard to energy and resource use.

### **3. Urban form and infrastructure**

Auckland will have an urban form and infrastructure that builds on the dramatic landscapes of the region to promote a unique character and entity, and extends the region's blue and green networks. It will contribute to a high level of social well-being, community cohesion and participation by promoting a sense of inclusion, identity, interconnectedness and communication between people at the neighbourhood and regional level; and by ensuring the equitable distribution of infrastructure to prevent the spatial and social polarisation of communities.

Auckland's urban form and infrastructure also supports a strong economy through high class, secure, resilient and adaptable infrastructure e.g. energy supply/ICT, and allowing the easy movement, not only of goods and services but ideas, skills and knowledge. Planning that protects and enhances the harbours, volcanic cones and ranges, maintains productive rural areas and prevents urban sprawl. Layered and integrated transport and communications networks offer choice.

### **4. Knowledge, skills and learning**

Auckland is internationally recognised as a centre of learning, research and development; which draws on its diverse cultural histories and traditions and uses new technologies to provide people with opportunities for engagement, learning about each other, creative thinking and innovation.

The population is well-educated, equipped with the skills to be resilient, innovative and able to adapt to change. A defining feature is that Aucklanders are equipped with the inter-cultural skills and attitudes that enable them to respect diversity and maximise its advantages, such as business and cultural connections with other parts of the world. Aucklanders are also well-informed about governance and the political process and there are high levels of participation across all demographic groups.

The high levels of knowledge and skills throughout the population have been achieved by social policy and planning that, through active interventions, ensure equity of access and opportunity to education for all demographic groups.

### **5. Strong, cohesive and resilient communities**

Auckland is a place where people have a sense of hope and achievement, where everyone has the opportunity to succeed.

Urban, social and economic planning and policies that ensure fairness and equity in opportunity and access to education, employment, affordable housing and essential services have created this sense of optimism. There has been particular emphasis on preventing polarisation and enclaves of disadvantaged communities based on spatial and demographic factors.

Auckland's urban form promotes a sense of identity and inclusion, and interaction between people; is flexible enough to adapt to changing lifestyles and provides a safe and healthy natural and built environment. Strong social infrastructure and institutions address disadvantage and polarisation and provide events, spaces and activities for communities to come together. Auckland's governance structures allow decision making at the local level so that people believe they have influence over decisions that effect them and can take responsibility e.g. for stewardship of their local environment.

## **6. Governance**

Good governance, including high levels of community participation, is critical to achieving all other goals for Auckland. Auckland has developed governance structures and processes that ensure fairness and equity of opportunity to participate across geographic and demographic groups, promote mutual respect and learning between diverse cultures, with clear processes for people to work together creatively to minimise prejudice and discrimination. There is a high level of community participation because governance structures allow decision-making at the most local level possible (subsidiarity), and people feel they can influence decisions that impact on their lives.

Integrated decision making, planning and service delivery at local and regional levels has achieved integration of environment, social, economic and cultural goals and strategies.

### **Strengths and Constraints**

In working towards a wealth of end state goals, the expert groups identified a similar range of strengths and constraints in the Auckland Region.

Our strengths lie in our place and our people – our outstanding natural environment with its harbours, volcanic cones, bush clad ranges with easy access; and our creative, diverse and interesting communities.

We also have the bones of a good urban form in our town centres, and some good examples of sustainable development already underway.

Some of our constraints are physical – Auckland’s isthmus geography makes infrastructure provision a challenge, as does NZ’s distance from major markets. However many are historical and cultural – the decisions that have shaped our city have at times been limited by short-term thinking and poor integration with other key decisions, leading to less than sustainable results for the region’s people, place and prosperity.

All the groups acknowledged that the “Forces of Change” will challenge the region to find new solutions and approaches. For example, rising costs (eg of energy) and potentially more extreme weather due to climate change may mean that people’s housing preferences will change. An increasingly diverse and potentially more polarised population will require more concrete efforts to promote social cohesion.

### **Actions**

The possible actions identified by the expert groups are wide-ranging and diverse. Some actions focus on immediate opportunities, such as offering incentives for solar water heating, incentives for low impact sustainable urban design initiatives, or creating a demonstration low impact design subdivision to demonstrate how other developments could readily pick up on environmentally smarter features.

Some suggest scaling up already successful initiatives to reach more people, such as the urban renewal, housing retrofit and high-speed internet access programmes.

Others argue for improved information, such as the economic value of environmental services, and stronger regulatory bottom lines, for example around emission standards, or “no-go” zones for development. There was also an argument to invest

in making Auckland University one of the top two universities in Australasia, a hub for centres of excellence around specialist research/product areas e.g. in sports medicine, light metals, biotech etc.

Most if not all of the groups identified the need for actions that would improve the alignment of decision making processes and governance, with calls for agreed regional directions and implementation plans (eg for urban form and infrastructure).

And all the papers identified actions targeted at “hearts and minds” – critical if the region is to achieve a wholesale shift to sustainability. Bringing back the dawn chorus to the city is one example, continuing to demonstrate a celebration of diversity in peoples through events such as Pasifika and similar, and ensuring Auckland’s diverse cultures and lifestyles are clearly visible in “mainstream” media both throughout New Zealand and beyond. All these are tangible and achievable goals that would support Auckland to grow into the city it wants and needs to be over the next 100 years.



# Built Environment

This Built Environment Theme Paper has been prepared as part of the START – Sustaining the Auckland Region Together project. The paper reflects a range of views and does not represent official positions of the organisations involved.

## 1.0 Introduction

This paper presents a summary of the expert group’s discussion about the built environment dimensions of a sustainable future for the Auckland region. It proposes ‘end state goals’ for the built environment of the Auckland region, identifies opportunities and challenges that we will need to meet, and proposes a series of actions that might help to get us closer to the goal.

The definition of the built environment we have adopted for this work is as follows:

*“The built environment encompasses the buildings, spaces, places and structures in which we live, work and play. It is the house you live in; the office, factory, school or shop you work in; the gym, café or playground you socialise in; and it’s the connecting spaces between these places. The built environment is what makes our towns and cities hum. It contributes to the activity and energy that people choose to live in cities and towns for.” (Ministry for the Environment, 2006)*

The scope of the built environment theme in the context of the START project has been determined as the pattern and hierarchy of built environments in the Auckland Region and the connections between them. The hierarchy within the region’s built environment have been categorised into four generic but distinct levels, for which different actions and outcomes can be ascribed. These are:

- Individual House or Building
- Neighbourhoods (streets)
- Community (area or ‘suburb’)
- Sub-regional Centres
- Regional Centre

The built environment theme is concerned with the ‘micro’ level of the city region at the individual building unit level as well as what collectively makes up the place, neighbourhood, centres and community. Whilst this theme incorporates some spatial relationship components, the overall regional spatial relationships between different environments, or land-use clusters, are more ‘macro’ considerations addressed within the related Urban Form & Infrastructure Theme.

A key consideration, and building block, in the exploration of a more sustainable built environment is the notion of the neighbourhood or community. This is where people live their lives, interact with others in social, cultural and physical settings, and derive connection and identity. This is not to undermine the importance of productive business areas or centres within the region. However, most of our endeavour and

activity in pursuit of a sustainable built environment will need to be conducted at the level of local communities.

## **2.0 End State Goals**

The following end-state goals are envisaged for the built environment of the Auckland region in the future, as a result of the collective implementation of all elements of the START framework:

### **Quality**

Built environments in the Auckland Region that are planned, constructed and continuously maintained to a high standard.

### **Adaptability**

Built environments that can adapt to changing needs and conditions in the Auckland region and beyond.

### **Natural Environment**

Built environments that reflect and enhance the natural environment of the Auckland region, and that optimise people's access to it and enjoyment of it.

### **Governance and Management**

An integrated approach to managing changes to the built environment of the Auckland region supported by quality and active governance, management, education, leadership, and high levels of community participation.

### **Resource Efficiency and Autonomy**

Built environments in the Auckland Region that use land and other resources efficiently and that are more autonomous and self-reliant in terms of resource production, consumption and management (e.g. energy, water, waste).

### **Amenities**

Built environments in the Auckland Region that offer an optimal level of amenities for all who live there.

### **Diversity**

Built environments in the Auckland Region that support diversity and allow people to live, work and pursue their lifestyles in ways they wish to.

### **Tangata Whenua**

Built environments in the Auckland Region that honour significant sites and reflect the histories, perspectives and aspirations of tangata whenua.

### **Identity**

Built environments in the Auckland Region that recognise and reinforce Auckland's leading place in, and relationships with, the Pacific.

### **Communities for Life**

Built environments in the Auckland Region that enable 'communities for life' whereby people can have the ability to live their lives in one community.

## 3.0 Seeds and Constraints for the Built Environment

### 3.1 Seeds for Sustainability

In terms of management and direction of change in the built environment of the region, we should focus on the region's natural assets and past successes. 'Assets' are interpreted as intrinsic characteristics of our place, and 'successes' are recognised as the positive consequences of past choices, and often occurred where our assets were preserved or enhanced through public decision-making.

Our Assets	Our Successes
<ul style="list-style-type: none"> <li>▪ Auckland is blessed with many natural environmental features that make it attractive – access to the east and west coasts, beaches and harbours, native bush, proximity to rural hinterlands and countryside environments, distinctive volcanic landscapes.</li> <li>▪ The New Zealand lifestyle and more particularly the Auckland lifestyle is what helps to set us apart from other international cities and provides a “competitive advantage” over others. It is what draws the ex-pats back to live and bring up their children, and it's a compelling attractor for new migrants.</li> <li>▪ Auckland's growing mix of cultures and ethnic groups provides this city with a rich cultural diversity.</li> <li>▪ We have history and heritage that is reflected in our built environments – although we have had varying success in retaining this.</li> <li>▪ Auckland already has definable, distinctive communities (areas, suburbs, neighbourhoods), with some successfully functioning as “urban villages” – that is offering choices for live, work and play.</li> </ul>	<ul style="list-style-type: none"> <li>▪ We have made strategic land acquisitions to preserve land for parks and to protect special landscapes that are an intrinsic part of the Auckland lifestyle.</li> <li>▪ Our open spaces, our proximity to beaches all around our coastal edges (east and west) and their connections to their neighbourhoods.</li> <li>▪ We have a Regional Growth Strategy that identifies a network of centres and growth nodes – that guides where and how growth is to be directed. We are now starting to see higher density development (particularly residential) in our town centres and sub-regional centres.</li> <li>▪ Recognising and starting to better utilise Auckland's “assets”, such as comprehensive redevelopment of the Auckland waterfront area with redevelopment of the viaduct harbour and proposed Western reclamation redevelopment.</li> </ul>

### 3.2 Constraints and Challenges

In order to move in the right direction towards achievement of the end-state goals identified for the Auckland Region's built environment, a number of issues and constraints will pose challenges that will need to be addressed.

Our Issues	Our Challenges/Constraints
<ul style="list-style-type: none"> <li>♦ We are still living with a historical urban form of separation of land uses, and we are still reinforcing that pattern with</li> </ul>	<ul style="list-style-type: none"> <li>♦ The resulting suburban pattern of sprawl with households further away from town centres and employment opportunities is</li> </ul>

<p>continued separation of where people live and opportunities for work, business, retail, recreation etc. As a result we have slowly eroded away the traditional concept of the “village” that provided opportunities for live, work and play.</p> <ul style="list-style-type: none"> <li>◆ The political nature of planning, and the 3-year political cycle, does not give adequate time for strategic planning and the implementation of long-term goals and visions.</li> <li>◆ The systems of local government have not been conducive to Maori representation and thus Maori have been largely excluded from governance and decision-making processes. This has been to the detriment of the city in terms of distinctiveness and ability to see Maori identity in built environments.</li> <li>◆ Developers generally have a short-term view of return from investment, where we need a more comprehensive longer-term view of land and property redevelopment in our growth areas.</li> <li>◆ We don't have the supporting infrastructure (hard and soft) to aide successful intensification.</li> <li>◆ There are physical constraints to Auckland's geography – the location of Auckland on an isthmus creates bottlenecks for infrastructure provision, particularly transport movement around the region.</li> <li>◆ A lot of recent intensification has not been done particularly well – this has lead to a negative public reaction and aversion to higher density residential development.</li> <li>◆ Our existing building stock both residential and business is not designed and built to be energy efficient and sustainable, and there are not the mechanisms or incentives in place to ensure new building stock is built more sustainably.</li> <li>◆ There is a real concern that we have been destroying the character of our built environments – those that have a sense of place, that have their own distinctive qualities. We are in danger of “homogenising” all our built areas and making them indistinguishable and bland by not protecting, maintaining and building on the qualities that set them</li> </ul>	<p>making it much more difficult to integrate land use and transport.</p> <ul style="list-style-type: none"> <li>◆ Costs of growth are increasing – saying no to growth is not an option, but we need to be smarter in getting the outcomes we want delivered. To get innovative developments requires a radical change in funding mechanisms both at central and local government levels.</li> <li>◆ A lot of the decision-making is inherently risk averse and done by those who are not necessarily skilled in the field or at the “leading edge” thinking of planning.</li> <li>◆ Auckland has many tiers of government (local, regional and central), which makes it harder to get an agreed and co-ordinated approach.</li> <li>◆ We need to turn barriers into opportunities – our region is bound by water yet we fail to fully utilise our harbours for alternative transport options.</li> <li>◆ Although we have the Auckland Regional Growth Strategy and we have identified the need to contain growth and have identified growth nodes, we have not done enough investigation into how to actually make it happen. What remains constant is the suburban pattern and continued suburban growth occurring over much of Auckland.</li> <li>◆ Our built environment needs to be more responsive to the different cultural needs and acknowledges that intensification and certain densities do not always meet the aspirations of some cultures – there is no one size fits all!</li> <li>◆ There have been problems with implementing the Regional Growth Strategy and the community perception of intensification has struggled. There is still strong community desire for detached housing and opposition to higher density housing forms.</li> <li>◆ We need to find new ways to fund New Zealand home ownership and for providing housing for different groups of society.</li> <li>◆ We are constrained to achieve comprehensive redevelopment of identified centres/ corridors where land ownership is fragmented, and ad-hoc/quick gain development decisions are made. Mechanisms are needed to ensure redevelopment opportunities are able to be realised in strategic locations – even if</li> </ul>
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<p>apart.</p> <ul style="list-style-type: none"> <li>♦ Housing affordability in Auckland is becoming a growing concern – land and property values are making home ownership less accessible, particularly in more desirable communities.</li> <li>♦ The on-going costs of running/ operating homes is becoming an affordability issue with rising energy costs.</li> </ul>	<p>this needs to happen in several development phases over time.</p>
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## 4.0 Impact of the Forces

Six ‘Forces of Change for the 21<sup>st</sup> Century’ have been identified as part of the START project, and presented in a series of working papers for debate. These forces have been identified as being likely to impact the Auckland region and its people over the next century.

Considering the built environment in light of the Forces, the following potential impacts and opportunities emerge.

### Climate change

Lifestyle aspirations of living close and accessible to coastal and beach areas are potentially threatened by climate change. Impacts of climate change are likely to cause conflicts for society, such as where people want to live (along north-eastern coastlines, on fertile floodplains, and on exposed ridgelines) and where they can live safely. This could negatively impact our ability to continue to develop built environments to support some of our lifestyle aspirations.

There is a need to start responding to the impacts of Climate Change within our built environments – however these are not insurmountable. This is required at both the individual building level and also for our neighbourhoods and communities in the way that they are structured/organised/ serviced allowing for greater resilience to sudden shocks.

### Resource Availability

Aucklanders are heavily reliant on oil-based transport and our current urban form is based on “cheap oil” - this makes it difficult to transition to more sustainable transport options. However rising oil prices and diminishing oil resources can help facilitate the shift to deliver built environments that are serviced and connected by a more sustainable transport network. This can provide the opportunity to strive for well-defined built environments that reflect and support communities and neighbourhoods, recognise settlement hierarchies and facilitate better connections between nodes/ centres.

The challenge of more effectively harnessing the use of resources and better handling the demand and supply side of resources can be directly linked to our aspirations for developing more sustainable options for both the building and functioning of our houses, workplaces and neighbourhoods.

### Globalisation

To compete on the global stage it will be critical for Auckland to maintain its natural/physical attributes and the lifestyle opportunities associated with living here. This strongly co-relates to a desired goal of providing a built environment which reflects the NZ lifestyle aspirations and protecting the valued natural features that are

part of Auckland's built environment. The ability for Auckland to develop built environments that enable jobs to be provided in order to allow people to meet their lifestyle aspirations will therefore be a significant contributor to Auckland's global competitiveness.

Fostering the creativity, knowledge and technical skills of people will be enhanced through built environments that encourage creative and innovative business and ways of working.

### **Technology**

Technology already provides many opportunities for more localised and greener approaches to how our built environments function – however the constraint to adopting these has often been the investment and reliance on more centralised networks and systems which we have heavily invested in financially.

The transformation of cities to be organised around economies of scope (where costs fall because of synergies between complementary activities occur, or because overhead is spread across a number of activities), directly aligns to our aspirations for seeking more localised solutions and the development of “complete communities” and developing built environments that foster creativity and innovation.

### **Demographic changes**

As a population we are becoming older and more ethnically diverse. How are the built environments that we have inherited, as well as the building forms and typologies we are currently advocating for, matching our changing populations needs. Whilst it is universally agreed that many parts of urban Auckland do not have the necessary densities to sustain viable public transport, does pushing to achieve the highest density (rather than aspiring to increase density) necessarily leave us with a resilient and adaptable building typology in the long term? As Auckland's population grows it is critical we provide housing that is affordable, culturally appropriate, adaptable to changing needs over time and resilient to the uncertainties of the future.

### **World Views**

The fundamental premise for Auckland to move toward ecological sustainability requires a significant shift in our social values in order to make the necessary changes to our society and economy. The goals we envisage for the built environment require a shift in values – principally the desire to seek more localised solutions as opposed to centralised systems/ networks. Creating neighbourhoods that operate as “complete communities” i.e. containing business, living, amenities, community, social and cultural uses as integral parts – reinforcing a neighbourhood mosaic is essential.

## **5.0 Actions and Responses**

Actions, strategies and responses as means of achieving the end state goals for the region's built environment have been identified in four categories that cover and address the hierarchy of environments. A key action or imperative is the recognition that no aspect of the built environment should remain unchanged, but that some aspects will need to change more than others.

## **Land and Buildings**

- Promote land and site amalgamation over subdivision into smaller lots within existing urban environments through for instance land banking, encouraging subdividers in identified areas to amalgamate sites, require consolidation of ownership by developers before subdivision.
- Setting and enforcing building quality standards for new and existing buildings, and adopting performance standards for buildings and tools that will assist consent decision-making.
- Promoting building systems and design and construction approaches that can facilitate change, adapt to changing uses, or can be cost-effectively replaced.
- Providing positive and negative incentives for individual households to adopt Beacon standards – funding support justified by life-cycle cost/benefit not just initial subsidy cost.
- Ensuring that information and communication technology accessible by all households.
- Promoting public spaces and buildings that cater for specific ethnic, cultural and lifestyle requirements.
- Investing in iconic public buildings and precincts that highlight Auckland’s history and competitive strengths.
- Identifying and promoting a range of housing types within each community that provide an appropriate level of social and economic choice for a broad mix of household needs and types.
- Ensuring continuing maintenance, renewal and repair of houses and buildings by valuing durable design and construction, educating owners about repair and maintenance, offering financial and service support for buildings at risk from under-investment, and acknowledging and rewarding owners that maintain their buildings.
- Provision of affordable housing opportunities for people who work within the community in essential services, and for those members of a community who are unable to access the housing market.
- Developing and implementing planning criteria that allow for key Maori cultural values to be observed within the built environment (e.g. connecting wings for extended families, kaumatua flats).
- Incorporating more renewable resource capture and recovery systems in dwellings and building e.g. solar power, rainwater collection, brown water recycling.

## **Environments and Communities**

- Promoting greater development densities through high-quality housing and building intensification in proximity to centres and transport corridors in existing urban areas.
- Maintaining, preserving and enhancing the public realm and spaces by locality-specific and area-wide improvement projects together with active management plans and approaches.
- Increasing the amount of public/private space in natural habitat as a means of protecting indigenous biodiversity.

- Retaining and enhancing natural watercourses and local natural features, and improving accessibility to, and amenity value of, the natural environment where it exists in local areas.
- Minimise the need to travel beyond neighbourhoods particularly for basic needs, by providing for and promoting local shops and affordable, well-located essential services.
- Making sustainable waste/water/energy systems an active and visible part of the built environment at neighbourhood and community level.
- Ensuring that public spaces and heritage sites are actively identified in neighbourhoods and highlight Maori occupation and use of significant sites.
- Creating partnerships with tangata whenua in developing design briefs for neighbourhood urban environments.
- Maintaining the identity of individual communities by strengthening those aspects of the natural and built environment that makes them unique through the preparation and implementation of local area design and development codes.
- Identifying points of difference in the built environment in terms of design, layout and construction between Auckland and other competitive Pacific cities and build on them through district plans, design codes and informed development investment.
- Benchmarking Auckland against other Pacific cities on key 'liveability' and 'community wellbeing' indicators.
- Locating buildings and services within each community that provide for the needs of young people and allow for the needs of the elderly.

### **Networks and Connections**

- Anticipate and provide for changes in the distribution of activity in the region.
- Reducing dependence on motor vehicle through improved walkability, local transit systems, community connections to sub-regional centres and hubs.
- Minimising volume and transit of waste by more localised treatment systems and peak flow management in each community or neighbourhood as appropriate and viable.

### **Management and Governance**

- Community and urban renewal programmes recognised and incorporated as a systemic part of the regional planning process, not just a one-off or ad hoc responses.
- The recognition of the importance of developing and implementing structure and master plans for the built environment that are directly linked to LTCCP's, involve commitment from other key delivery and infrastructure agencies, and increase the vertical integration between building and site to the local environment and regional patterns so that outcomes are optimised and negative impacts minimised.
- Leadership and commitment to master-planning and local area development planning to manage change at community, sub regional and regional levels.

- Creating a formal built environment and design ‘champion’ group at a regional level to drive improvements in the built environment at all levels.
- Identifying and implementing a small number of visionary building and area master-planning projects to be delivered in 5-7 years that have scale, grab attention, highlight the opportunities and identity of the region.
- Increasing local participation in arts, culture, recreation and sporting activity.
- Forming a regional iwi forum to preside over the development of planning criteria and design guidelines to accommodate Maori and iwi values.
- Establishing or opening up Marae/education centres within communities that enable Auckland to understand its bicultural basis.
- Maximising community participation in community affairs including recognition and support for older peoples participation in community activity.
- Establishing effective neighbourhood and community development and management mechanisms that allow for development and re-development of neighbourhood and community built environments that actively involve stakeholders (residents, business, services).
- Promoting legislative changes to drive more sustainable forms of building and development, and encourage innovative and responsive development proposals and solutions.

### **Built Environment Expert Group**

The built environment expert group consisted of the following people:

- ◆ Kay Saville-Smith, Centre for Research, Evaluation and Social Assessment (CRESA)
- ◆ Nick Collins, Beacon Pathway
- ◆ Martin Udale, McConnell Property
- ◆ Rau Hoskins, Designtribe
- ◆ Stephen Brown, Stephen Brown Environments Ltd
- ◆ Neil Gray, Neil Gray Strategic Projects
- ◆ James Lunday, Common Ground Ltd

The group Convenors were:

- Lesley Jenkins, North Shore City Council
- Matthew Everett, Ministry for the Environment

The group Navigators were:

- Ross Moffatt, North Shore City Council
- Vanita Ranchhod, Waitakere City Council

Assisted by Phil Chung, North Shore City Council

***See Separate attachment for Appendix One, “Historical Background”.***



# CULTURAL DIVERSITY AND COMMUNITY COHESION

This Cultural Diversity and Community Cohesion Theme Paper has been prepared as part of the START – Sustaining the Auckland Region Together project. The paper reflects a range of views and does not represent official positions of the organisations involved.

## 1.0 Introduction

This paper presents a summary of the expert group's discussion about the Cultural Diversity and Community Cohesion dimensions of a sustainable future for the Auckland region. It proposes 'end state goals' for Cultural Diversity and Community Cohesion, identifies opportunities and challenges that we will need to meet, and proposes a series of actions that might help to get us closer to the goal. The group did not agree on all issues, but celebrated their diversity of views and the lively and creative debate this produced.

### 1.1 Definitions and Scope of the Theme

Definitions of "culture" and "diversity" are inherently debatable; however, for this paper, the following are used:

**Culture** is made up of the systems and processes by which we make sense of the world - the abilities, norms and behaviours we acquire manifest in a constantly evolving set of values, symbols, rituals and institutions. Culture provides the lens through which we, as individuals and societies see the world, the sets of rules by which we treat others and the critical template through which we organise ourselves as societies and form our distinct identities.

**Cultural diversity** embraces a whole range of cultures and corresponding identities which may be layered within the one individual and community to create distinct perspectives on the world. Although other definitions could include communities of interest such as arts, business and global cultures; the scope of this paper is confined to cultures based on fixed, inherent demographic characteristics (gender, ethnicity, age, ability/disability, sexuality); and on religious beliefs, which are both linked to and transcend ethnicities.<sup>1</sup>

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<sup>1</sup> The definitions of "culture" and "diversity" have been adapted from the "Cultural Systems Foundation Paper" of the Vancouver CitiesPlus Project. The definition of "disability" is from the NZ Disability Strategy which adopts the "social model" of disability; i.e. people have impairments and become "disabled" through barriers created by the rest of society.

**Community cohesion** is: “the processes between people which establish networks, norms, social trust and facilitate coordination and cooperation for mutual benefit”.<sup>2</sup> .

These definitions embrace Maori as Tangata Whenua, whilst acknowledging that Maori perspectives on this and other themes will also be incorporated through a specific process for engaging Maori in the START Project.

## 1.2 **General themes**

The following general themes underpin this paper:

- Diversity itself is not a value: respect for diversity is
- Respecting diversity is about how we value our differences and connect with each other
- The fundamental and major challenge is to change attitudes towards other cultures
- If we are to gain positive outcomes from Auckland’s increasing diversity, like innovation and creativity, then we must move beyond mere tolerance of difference to acceptance, respect, celebration and incorporation into our thinking, behaviours and institutions
- The language we use is vitally important as it shapes communication and thereby outcomes, for example, “non-Christian” can be perceived by people of other faiths, as a negative definition of their faith
- A sense of identity, belonging and history are essential for individuals and communities to connect and bond together

## 2.0 **End State Goals**

1. *Auckland has a unique global identity created from both the distinctiveness and fusion of its Maori, European, Pacific, Asian and other cultures.*
2. *Auckland is internationally recognised as a place where diversity is respected and celebrated, with a high level of community cohesion and wellbeing, and clear processes at regional and local levels for people to work together creatively to minimise prejudice, discrimination and racism.*
3. *Auckland has regional governance structures and processes of communication and dialogue that strengthen respect for diversity and community cohesion; and allow decision-making at the most local level possible (subsidiarity), so that all cultural and demographic groups can participate and all voices can be heard.*

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<sup>2</sup> Robert Putman and Eva Cox

4. *Auckland is a region that acknowledges its diverse history which is narrated in a mosaic of natural features, cultural events, historic and iconic buildings and public art.*
5. *Auckland has an urban form, physical infrastructure and built environment that promote a sense of belonging and community cohesion through public spaces, safe and attractive neighbourhoods, transport and communications networks that encourage interaction between people and communities, reflect cultural diversity and are accessible to everyone.*
6. *Auckland is a region where all people have hope, believe they can realise their aspirations and reach their full potential; and where opportunities and access to quality employment, housing, health and education services are not based on ethnic or other demographic factors.*
7. *Auckland is internationally recognised as a centre of learning which draws on its diverse cultural histories and traditions and uses new technologies to provide people with opportunities for engagement, learning about each other, creative thinking and innovation*
8. *Auckland is a region where people look after each other, are genuinely hospitable to new migrants, refugees and visitors; and welcome and nurture these connections with other parts of the world.*

### 3.0 Opportunities and Constraints

A number of factors and trends provide a platform for building respect for cultural diversity and strengthening community cohesion. New Zealanders, on the whole, share values about fairness and the concept of equal opportunities for everyone to achieve their aspirations. They place a high value on harmonious race relations and peaceful resolution of differences. These values are underpinned by legislation and institutions (for example, Tiriti o Waitangi/Treaty of Waitangi legislation; the Bill of Rights, Human Rights Commission) and support for international conventions. There is a growing, informed public debate on Tiriti o Waitangi/Treaty of Waitangi issues, cultural diversity and national identity. Growing acceptance of Treaty settlements indicate New Zealanders are prepared to acknowledge and learn from past mistakes and injustices. There is evidence that there is less sexism and racism than in the past<sup>3</sup> and an increasing awareness of the rights of disabled people. In general, there is at least tolerance - and growing acceptance - of religious diversity and different sexuality. There has always been a high level of intermarriage between ethnic groups. Although there has been some party politicisation of race and immigration issues, there are no significant political parties based on racism and xenophobia.

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<sup>3</sup> For example, see the reports "Human Rights in New Zealand Today" and "Race Relations in 2005" Human Rights Commission

There are signs that New Zealanders are beginning to celebrate some aspects of cultural diversity. Diversity is flourishing in the arts and creative industries with especially strong representation of Maori and Pacific artists. Diversity is also influencing New Zealanders' lifestyles, with increasing numbers attending ethnic/religious festivals and enjoying ethnic restaurants, arts and media.

There is, therefore, some cause for optimism that New Zealand has the potential to become a successful culturally diverse and cohesive society.

Attitudes are the most significant barrier to achieving this. People have to see the benefits of cultural diversity to themselves and the reasons for change. At present, most New Zealanders' appreciation of other cultures is at the more superficial level of "dinner, dance and dress", rather than an appreciation of the more substantive benefits of diversity - innovation, creativity, access to new markets, more influence in the world. There is limited cross-cultural contact at the personal or neighbourhood level. In Auckland this is reinforced by the trend to less socially mixed areas/suburbs because of rising land prices and the pressures on the housing market. In some areas this is leading to ethnic enclaves of lower-cost or social housing; creating "communities of fate" rather than "communities of choice". There is still stigma and discrimination around disability and ethnicity and the marginalisation of people who are visibly different.

The media plays a critical role in how we perceive other cultures. Our television is dominated by global media corporations and overseas content. Coverage of other cultures by our "mainstream" media is inadequate, often stereotypical and unbalanced.

The very low levels of participation and representation of Maori, Pacific and other ethnic minority groups in local and regional governance, is a threat to community cohesion and must be addressed.

## 4.0 Impact of the Forces

Six 'Forces of Change for the 21<sup>st</sup> Century' have been identified as part of the START project, and presented in a series of working papers for debate. These forces have been identified as being likely to impact on the Auckland region and its people over the next century. Considering Cultural Diversity and Community Cohesion in light of the Forces, the following potential impacts emerge:

In summary these are:

- Demographically, Auckland will be very different from the rest of New Zealand.
- Auckland's increasing diversity of cultures, identities and worldviews –and the impact of the forces of change-presents both opportunities and threats to community cohesion.
- Advances in biotechnology may increase competition between demographic groups and heighten debate on ethnics and values. New communication technologies have the potential to both strengthen or lessen connectedness, participation and community cohesion.

- To ensure all demographic and cultural groups are able to participate in governance at local and regional levels, new ways of decision-making and forms of participation may have to be developed.

By 2050, Auckland will have 41% of the New Zealand population but will be very different in the mix, numerical balance and age structure of its population. Auckland will be younger, more Asian, more Pacific, less European and possibly less Maori, than the rest of New Zealand. Immigration will continue to be a dominant force. Climate change could result in significantly increased migration to Auckland, especially from Australia and the Pacific Islands. Relatively fast changes in Auckland's demographic and cultural mix could put pressure on community cohesion.

People will identify with multiple ethnicities and, with an increasing mobile and fluid global population, people will also identify and be connected to communities elsewhere. China and India will become economic superpowers and this provides opportunities to maximise the advantages of Auckland's increasing Asian population. Auckland may also be influenced by global trends and events that have a negative impact on respect for diversity such as increased nationalism, religious fundamentalism, and political extremism.

There will be increasing diversity of religious faiths and world views and Christianity may not remain the pre-dominant faith. Increasing longevity and developments in biotechnology like "designer babies"; increased survival of low birth weight babies and seriously disabled accident victims, could have positive or negative impacts on respect for diversity, attitudes to disability, and intergenerational equity. There is likely to be increased debate on bio-ethics and euthanasia, especially as disabled people and older people become numerically stronger and participate more. There could also be cultural shifts in how we relate to the environment and value increasingly scarce resources, drawing on te Ao Maori and values of "kaitiakitanga".

Technology can both connect and divide people and change the way social relations develop. Social interaction and interpersonal skills may decline as people use email and texting to communicate and work more from home. Technology also provides opportunities for more communication and engagement, learning and creative thinking and the possibility of a global civil society - for example, a group of people working in a common cyberspace, or sharing a cultural event online.

These impacts may provide the opportunity to evolve a set of shared values which are critical to cohesion; or shared values may become less possible as we become more diverse. We will need to find new ways of developing common values, identifying our interconnectedness as well as our differences and gaining the skills and competencies to deal effectively with cultural differences.

**The above impacts raise critical issues about governance, participation, power and control over resources in Auckland.**

In the future, it is likely that the important economic and cultural relationships will be region to region, rather than nation to nation. Therefore, decisions on Auckland's future need to take account of the region's large diaspora; particularly the parent communities in the Asia-Pacific region. Government immigration policies should contribute to regional growth, economic and

social development strategies, through integrated planning at a national, regional and local levels; including addressing the likely impacts on existing communities and community cohesion.

The current low levels of participation and representation by Maori, Pacific Peoples and other ethnic minority groups in governance, must be addressed to provide more balance in the distribution of power and prevent increasing disparities, ethnic tensions and negative impacts on community cohesion.

### *Tangata Whenua*

Tangata Whenua are already numerically less strong in Auckland, than in the rest of NZ, although with a growing economic base. With increasing pressure on essential resources and new technologies for extracting resources, there may be increased political tensions around the Treaty and Maori customary rights to and management of resources. This has implications for Auckland's relationship with Maori as Treaty partners and with the rest of New Zealand. We need to engage equally with all iwi/hapu in the region<sup>4</sup> on how they see their role in the sustainable development of the Auckland region.

## **5.0 Actions**

Some fundamental changes in thinking and attitudes are required to achieve the End State Goals identified in Section 2. This means there are no “quick fixes” and the priority should be on educating our children and young people for a culturally diverse society. Catalyst actions - actions that provide a platform for more substantial actions - we need to take now include:

### **5.1 Education System**

Respect for diversity should be a principle underpinning all Auckland's schools, the curriculum and teacher training. This includes programmes on understanding other cultures, identifying shared values, our interconnectedness and differences, and recasting our teaching of history to give a balanced view of the contributions of other cultures. Particular emphasis should be on developing the intercultural skills that enable us to navigate our way through cultural differences - e.g. communication skills and knowledge of cultural values that underpin behaviour<sup>5</sup>. Specific initiatives could include “pairing” schools with different ethnic/socio-economic profiles, using existing and current technology to overcome Auckland's spatial barriers.

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<sup>4</sup> Waikato-Tainui, Te Taou, Ngāti Whatua, Kawerau-a-Maki, Ngai Tai, Ngāti Paoa, Waiohūa and Ngāti Wai.

<sup>5</sup> The Draft New Zealand Curriculum 2006-currently out for consultation- includes a set of values seen as supported by New Zealanders; these include diversity and learning about different kinds of values, how to emphasize with other values and discuss disagreement that arise from different values.

## **5.2 Community Development**

Government and Local Government should support communities to identify and organise their own initiatives to foster and derive benefits from diversity; and create formal and informal opportunities to develop, experience and use skills to deal with cultural diversity. There are many existing activities and events that are strengthening celebration of diversity and strengthening community cohesion. These include major initiatives like the New Zealand Diversity Action Programme,<sup>6</sup> major events like the Pasifika Festival as well as the growing number of local community events and multi-cultural festivals.

In the short term, Government, Local Government and other agencies, should give priority to expanding and promoting these initiatives through funding, capacity-building and other forms of support.

Organised sport provides opportunities to build shared goals and values that transcend ethnic and social differences. Support, including funding, should go to specific programmes in clubs and informal activities that promote diversity through sport, for example, the Halberg SportAccess Trust initiatives to include disabled people, and support to sports favoured by Asian communities.

Government, with other sectors, should explore the idea of a national “institution” or programme that brings young people together for a common purpose.

## **5.3 Communications and Media**

People have to recognise the benefits of cultural diversity to themselves, their communities and New Zealand as a whole. Government, Local Government and other agencies need to develop targeted communication strategies, creatively using new technologies and New Zealand-made films and television documentaries to help achieve this.

The Government should work through public broadcasting and their own communications, to provide balance to the global news media and promote New Zealand’s distinct cultures rather than dominant global cultures. Maori, Pacific and ethnic news events, drama, films, documentaries, music, film etc, should be clearly visible in the “mainstream” media; along with actions to increase the diversity of people working in the “mainstream” media. At the same time, Maori, Pacific and other ethnic media, such as Maori TV, and Triangle TV should be supported by Government.

## **5.4 Governance**

Auckland’s local and regional governance structures should be reviewed on the principles of recognising, respecting and reflecting diversity and the principle of subsidiarity. The aims would be increasing participation, strengthening community cohesion and achieving representation that reflects Auckland’s demographic mix. The immediate focus should be on increasing the participation of Maori, Pacific Peoples, other ethnic minorities and young people, making governance processes accessible and relevant to them. This

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<sup>6</sup> [www.hrc.co/diversity](http://www.hrc.co/diversity)

is more likely to be achieved through local processes for dialogue and decision-making that give all communities choice and a share in decisions which impact on them. These include discussions on Auckland's long-term future; immigration and settlement policies; land use and infrastructure planning.

## **List of References**

The following are references for programmes and initiatives referred to by the Expert Group in the course of their discussions.

Human Rights in New Zealand Today, Race Relations in 2005 - [www.hrc.co.nz](http://www.hrc.co.nz)

New Zealand Diversity Action Programme - [www.hrc.co/diversity](http://www.hrc.co/diversity)

National Interfaith Forum - [www.hrc.co.nz/newsandissues](http://www.hrc.co.nz/newsandissues)

New Zealand Disability Strategy - [www.odi.govt.nz](http://www.odi.govt.nz)

Preparing New Zealand for Asia - [www.asianz.org.nz](http://www.asianz.org.nz)

The Virtues Project - [www.virtuesproject.com](http://www.virtuesproject.com)

Draft New Zealand Curriculum 2006 - [www.minedu.govt.nz](http://www.minedu.govt.nz)

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# Economic Transformation

This Economic Transformation Theme Paper has been prepared as part of the START – Sustaining the Auckland Region Together project. The paper reflects a range of views and does not represent official positions of the organisations involved.

## 1.0 Introduction

This paper presents a summary of the START economic transformation expert group's discussion about Auckland's economy in the context of a sustainable future for the Auckland region. It proposes 'aspirational goals' for the economy, identifies barriers and opportunities in light of the upcoming influencing forces that we will need to address, and proposes a series of actions that might help to get us closer to the goals. The theme has been called 'Economic Transformation' in recognition of the linkages between this work and the central government goal of transforming the New Zealand economy.

The economic transformation expert group met twice, on 19 July and 25 July 2006, each time for a three hour discussion on the matters above. The members of the group are listed at the end of the paper (some members were unable to attend the sessions, so contributed separately). Members of the Auckland Metro project were also invited to observe and contribute to the START process, reflecting the alignment between the START and the Metro projects.

The Auckland economy is a broad topic. Discussion over the two sessions was wide-ranging, but we were not able to cover all relevant matters, nor address any particular topic in great depth.

The group did not presume to nominate set industries or areas which may emerge as key to Auckland's economy over the upcoming years – **rather the group concluded that Auckland required aligned, nimble and dynamic processes that drive and transform the economy.** The resulting discussion, and this paper, reflected this focus on required processes.

This paper will form the basis of the contribution of the Economic Transformation expert group to the START integrating charrette planned for the end of August 2006.

## Aspirational Goals

For Auckland to have a long term sustainable economy, we need:

**Unified decision making:** Under a coherent planning framework, Auckland has aligned its economic planning processes, goals and decision making to transform the economy to meet future challenges.

**Dynamism and Resilience:** The Auckland economy is able to quickly address new and emerging trends, including the mega-trends identified by the START project (for example, is resilient and efficient with regards to resource use and energy).

**Economic development mechanisms and products that will enable progress towards sustainable development outcomes:**

*Social outcomes*

- high wages and living standards, as well as high levels of opportunity and choice
- social support programmes to assist disadvantaged communities

*Environmental outcomes*

- environmental research and programmes
- choices about how we treat the environment and offers opportunities to preserve what that society values

*Cultural outcomes*

- all cultural groups and their cultural expression

**An economy that creates, attracts and keeps great businesses and people:**

Auckland has (or continues to have):

- A business environment that is transparent and corruption free, with core clusters of successful businesses.
- Strong interconnectedness to the rest of the world – as a gateway to and from the rest of the world. Auckland’s transport, communication and movement must be at least comparable to other international cities, and, to attract the head-offices, world class.
- Infrastructure which is high class – with excellent, affordable security of supply for energy and water, as well as strong and resilient telecommunications and transport networks
- Great research base – and high levels of research and development investment producing world-class research results
- A cohesive innovation system (across all levels of education) that contributes to a culture of creativity, innovation and entrepreneurship.
- First class education – to provide education and skills for our own youth and to further attract workers, and their families from around the world, to compete in the education market for youth around the world.
- An urban environment which is attractive and agglomerating
- A skilled and deep workforce with a well established culture of lifelong learning
- An international image that is distinctive and attractive and embraces our diverse cultural makeup. One option may be recognition as a centre of sporting excellence, with great places to “play” (e.g. physically, culturally or artistically).
- An economy that leads and supports the New Zealand economy:
  - An internationally competitive city region
  - A robust contributor to the New Zealand economy (diversifies risk of overall economy)

## Barriers and opportunities

### Current State Of Play

The group suggested the following about the current state of play in the Auckland economy:

- Currently there is considerable focus on building the Auckland economy through the AREDS, the Metro project, and government's Economic Transformation programme.
- Auckland has a long standing history of commercial activities in particular areas (e.g. being the dominant commercial centre in New Zealand, and having a strong gateway role). Auckland has also experienced rapid growth (and occasional decline) in a number of non-traditional sectors – e.g. film making and the creative sector. The challenge for Auckland is to encourage new and appropriate emerging industries but also to maintain our traditional economic strengths.
- Auckland has in recent times, undergone strong population growth which has contributed to the greater part of Auckland's recent economic growth.
- New Zealand (and Auckland) has a legacy of under-funding our infrastructure (although this is beginning to change with significant expenditure in transport infrastructure) – we need more investment simply to maintain current service levels. The group acknowledged that the desire for high class infrastructure is not always matched by recognition that this does require funding contribution, whether by ratepayers, tax payers, or users. This could require reconsidering existing funding methods and criteria.
- Auckland's economy depends on our gateway role (for freight, immigrants, business visitors and tourists). This role needs to be updated and enhanced so that Auckland is still relevant to the rest of the country (and the rest of the world), and so that we can attract future business. This means addressing a range of matters affecting our "gateway" reputation and efficiency - poorly planned growth, urban sprawl, ugly buildings (lack of a high-quality shop window), uneducated youth, lack of skilled workforce and dated infrastructure or infrastructure gaps.
- Auckland is diverse, but we could do more to embrace our diversity. Diversity is potentially a strength that can be channelled to make us competitive over the longer term. We need to show this through our innovation, our workforce, and our public spaces. Diversity can also be a challenge, as it's easier to have a single aspirational goal when homogenous.
- Auckland is dependent on servicing the domestic economy. Auckland is primarily an importing centre rather than an exporting centre.
- Auckland has three universities (with an additional university, just south, in Hamilton). None of them is recognised as being within the top two or three in Australasia. Auckland University is the only university in New Zealand with the potential to become world-class or one of the best in Australasia.
- Our decision-making processes, historically, have not been effective to address significant change. The legacy is that we are used to short term processes as the norm, and it is hard to change these processes.
- As has been recognised by the current push to increase productivity, Auckland has a relatively poor record of using its people and resources well.

This may be due in part to a relative abundance of natural and physical resources such as energy and land, as well as to lack of investment in people and infrastructure. This may not be the case in future, as recent skills shortages, and crises around energy and transport have demonstrated.

There are a number of opportunities to transform the Auckland regional economy into the sustainable economy of an internationally competitive world class city:

- Our people
  - We have, and are likely to continue to have, a young population relative to many other countries. If our education system delivers high level skills for this population, we have the potential to have a highly skilled workforce that constitutes a larger proportion of our population than other countries.
  - Auckland has a diverse cultural heritage– especially with a younger South/West Auckland area
  - We have English speaking, and educated, workers
- Our natural resources
  - New Zealand has lots of wind / water / coal / land that offers development opportunities to be serviced from Auckland – Auckland has a key role in servicing New Zealand wide industries.
  - Auckland is situated in a geographically stunning location and has a high quality natural environment (harbours, Waitakere Ranges, farmland, etc) making it an attractive place to live.
  - Auckland's temperate climate is another advantage in attracting workers. The climate will remain temperate whatever the outlook is for the global climate
- Our infrastructure:
  - Although there are gaps, Auckland has an existing base of effective infrastructure on which to build.
  - Infrastructure renewal and enhancement and urban growth, provides the opportunity to establish part of the region's economy on a more sustainable basis.
- Our place in the world (and in New Zealand)
  - Auckland can use its existing gateway role to increase the interactions between New Zealand and the rest of the world – both tangibly (freight and people) and intangibly (electronically).
  - Existing head offices and major service providers (eg large financial, accounting and legal firms) provide the service infrastructure to enhance location of other corporate activities in Auckland.
  - Auckland's status as the largest agglomeration in New Zealand provides an opportunity for recognition that Auckland is different from the rest of the New Zealand economy, and that strategies and policy decisions in relation to Auckland may differ from other regions in New Zealand.
  - Our relations with Australia and with Asian countries (e.g. through ASEAN & APEC) connect us to large economic and trading entities; our populations from these countries provide valuable links
- Our innovation
  - Existing research facilities exist within universities and in CRIs (some of which are situated near to Auckland, in the Waikato). These provide

the potential for major growth in areas relevant to economic transformation (e.g. biotech, health, engineering, etc).

- We have the potential to leverage the domestic education system to deliver world class education to cater for the growing youth population in the 3<sup>rd</sup> world, i.e. increasing our exports of education services.

Barriers to achieving this future economy include:

- Legacy of under-investment in infrastructure, for example, existing energy sources and energy infrastructure which is perceived to be inadequate
- Public resistance to change and intertemporal NIMBY-ism:
  - For example - Limited understanding and responsiveness to the challenges and opportunities offered by climate change / resource scarcity etc
- Legacy of reactive policy process and short term planning, different plans at different times, often by different agencies
- Existing decision-making structures inhibit unified planning and implementation of plans
- Size and isolation of New Zealand
- Dependence on imported oil and other imports, and the impact of cost increases in the costs of international and domestic connectivity
- Auckland's current reliance on the domestic market and lack of international focus
- Lack of availability of land for business in the Auckland Metropolitan Region
- Difficulties in building infrastructure due to the region's unique geography,
- Lifestyle and psyche – are we too complacent?

## Impact of the Forces

Six 'Forces of Change for the 21<sup>st</sup> Century' have been identified as part of the START project, and presented in a series of working papers for debate. These forces (climate change, demographics, resource availability, technology, globalisation and world views) have been identified as being likely to impact the Auckland region and its people over the next century.

The group considered that the best way to address the impact of all forces was to have nimble, dynamic and aligned processes in place so that the economy can quickly adapt.

The group also noted that the START Forces were not the only trends facing the Auckland economy over the next 100 years.

Considering Auckland's economic transformation future in light of the START Forces, the following potential impacts emerge:

### **Climate change:**

- ◆ The gateway economy is dependent on freight movement to import and export. Climate changes that impact on New Zealand's agricultural productivity will affect the nature of Auckland's gateway role – either requiring a reduced or increased role for physical movement of goods. Future exports may be service, communications or information based, rather than commodity. (Auckland as a gateway has tended to be about bringing goods in.)
- ◆ Some of Auckland's "opportunities" such as good weather, attractive harbour are climate dependent. However, climate change could be positive for the economy (in a relative sense at least) if Auckland in future has a better climate and better access to fresh water than major Australian cities.

- ◆ Climate change will affect the risk profile of different investments in Auckland in different ways (for example):
  - i. Businesses may be subject to higher insurance premia as insurance companies cover the cost of insuring against climate change related weather events
  - ii. Auckland's property market places a high premium on coastal properties. Many Aucklanders invest in property, rather than securities. Rising water levels may result in significant coastal erosion to private properties – there will be cost impacts of this (insurance, private costs, local govt costs). There may be a shift in housing preferences away from the coast, substitution to land higher above sea level in response, or greater diversity in investment.
- ◆ Infrastructure will have to be more resilient to deal with climate change effects. For example, the city will need an electricity system that can withstand more frequent and stronger storms.
- ◆ Populations of a number of Pacific Island nations may be forced to move to New Zealand, most likely Auckland, due to rising sea levels. This may impact on social capital, labour market skills and the ability of the regional economy to house this influx of people. See Demographics below.

### **Demographics**

- ◆ Population wise Auckland is still quite young, is likely to continue to stay relatively young, and to attract young people. Hence, the trend of ageing populations occurring in large cities internationally will happen later here.
- ◆ Auckland's younger population are likely to be more culturally and technologically proficient than previous generations and this may be reflected in their innovation, self-belief in the city and country's global competitiveness, and entrepreneurial aspirations.
- ◆ Auckland will need sufficiently adaptive processes to deal with, and in some cases shape the future physical development of the region, through influencing the amount, timing and sequencing of investment in the social and physical infrastructure of the region, and taking into account trends of where people are choosing to live (for example, the current trend of Auckland's population growth towards the south).
- ◆ Increasing proportion of Auckland's ethnic communities will continue to diversify Auckland's culture and identity.
- ◆ It is difficult to plan for events such as forced migration that may occur through political instability, war, or rising sea levels. Auckland has always been a migrant city – we need to have sufficient ways of coping with refugees, migrants, and attracting skilled immigrants who choose to come here.
- ◆ With high population growth in the rest of the world Auckland's permanent population could be swamped by temporary visitors with consequential costs and benefits for accommodation (long and short term), transport and business sectors.

### **Resource availability**

- ◆ Security of energy supply is imperative for all economic sectors. Two major threats are Auckland's energy transmission and Auckland's dependence on imported energy sources (e.g. oil). Costs of electricity generation will help determine the nature of the industrial sectors that locate in Auckland and, more generally, in New Zealand. There is potential for more efficient energy use and for alternative supply sources.

- ◆ Auckland is rich in water resources compared to some Australian cities. This is a competitive advantage for water hungry industries in the Australian region, provided that there is sufficient infrastructure to allow industry to operate.
- ◆ New Zealand is geographically isolated, relying on freight to transport imports, exports and tourists. Auckland's gateway role may be significantly curtailed if planes and ships restrict their operations to Auckland, or if the cost of oil means that transport component of goods exported to and from Auckland is too high.
- ◆ Even now, Auckland is facing shortages in capacity in terms of land for residential and business development.
- ◆ Understanding of the need and opportunity to address resource availability (through demand management and innovative investment strategies) will be critical to Auckland's competitiveness in the mid term.

### **Technology**

- ◆ Auckland's innovation and education systems will need to be flexible so that Auckland is an early adopter of new technologies.
- ◆ Communication technology advances can be seen as a way of reducing transport needs:
  - This may reduce the environmental footprint of Auckland's transport
  - This may also help New Zealand deal better with the tyranny of distance and reduce transport costs to the economy overall.
- ◆ Ironically, the increased application of IT will lead to the further growth of Auckland's population and the further shift toward business service activities, thereby further increasing Auckland concentration and congestion. The outcome of this is that the issues of infrastructure provision, and not just of internal Auckland infrastructure, but also the infrastructure connecting Auckland to the rest of New Zealand, are paramount.
- ◆ There is an opportunity for New Zealand to provide for niches in the emerging new / green economy technologies e.g. water / waste management, local energy solutions, medical research, etc.

### **Globalisation**

- ◆ Auckland has considerable ethnic diversity. We need to focus on how to tap into the ethnic diversity to help create better international links with the countries from which Auckland's ethnic communities originate.
- ◆ New Zealand is not in any obvious large trading bloc (e.g., NAFTA, EU) and as trade blocs emerge, we need to be positioned favourably to take advantage of trade opportunities or avoid being shut out.

### **World views**

- ◆ Single leadership, resilience (including in the built environment and infrastructure) and alignment in planning will allow Auckland to more easily deal with shocks such as natural disasters or terrorist attacks by having a coordinated recovery approach.
- ◆ Being an independent and geographically remote nation has its benefits – New Zealand has a good brand on which Auckland can build.
- ◆ Greater population diversity and a persistently high growth rate in Auckland compared to the rest of New Zealand will amplify differences in regional identity and highlight tensions and trade-offs in public policy over the distribution of benefits and costs (e.g. uniform coverage of public services vs. targeted investment in locations where agglomeration benefits may be greatest).

## Actions

The group agreed that, with regard to taking action, whatever we do, we need to do it really well and at a scale that is transforming. Historically Auckland (and New Zealand) has undertaken actions that may have been the right actions, but were not done at a successful scale.

The group also considered that there is a case for prioritisation of national investment in Auckland, not just for the benefit of Auckland's economy, but for the whole of New Zealand. We need to avoid Sydney becoming New Zealand's city link to the rest of the world.

The group agreed on the following action areas for Auckland, none of which were mutually exclusive. These action areas would create resilience in the face of the Forces, and would enhance or transform Auckland's economy.

All agreed that doing nothing was not an option – the actions have to be more than simply sharpening up NCEA testing, or relying on the natural emergence of agglomerative effects of congregation in large urban areas.

### **Action Area One:**

Continue to ensure Auckland has resilient, strong basic infrastructure (transport, telecommunication, energy, water, waste water, and storm water) both within Auckland and linking Auckland with the rest of the world, that continues to anticipate and to progressively meet the needs of its growing population and the challenges presented by the six forces of change (above), now and far into the future.

### **Action Area Two:**

Ensure that Auckland is a world class international city:

Super fast broad band, internationally imaged city, the type of city that attracts head offices, fantastic CBD and waterfront, excellent transport links between airport and CBD, excellent freight/transport links to Hamilton, Marsden Point, Tauranga (Mt Maunganui). Creating Auckland as a city of head offices means that high level decision making/ designing is based here. The movement of manufacturing to other lower cost areas (e.g. China) matters less than the movement of the head office away from Auckland and New Zealand (for example – we'd like to keep the F&P head-office here). Auckland's outstanding natural environment is potentially very competitive internationally to attract skilled workers.

### **Action Area Three:**

Endogenous growth – internal innovation, education, R&D:

- ♦ Build up Auckland's university research capability by creating a critical mass (e.g. 20-50) "million dollar" chairs in commercially oriented research areas such as engineering and science, especially agriculture-related biotech and health. Funding could come from central and local government and relevant businesses). Work with CRIs, research institutions and firms in other areas (especially Waikato/BoP) to create a golden triangle of opportunity in the region.
- ♦ The comparative youth of Auckland/New Zealand could present an opportunity to deepen New Zealand's education system to greatly upskill young New Zealanders and to attract youth from around the world to our educational opportunities.
- ♦ The University of Auckland has the strongest potential of all New Zealand universities to increase its ranking in the top 100 universities of the world. There

are several faculties (e.g. in Medicine) that could be used as leverage points to catapult it into the top rankings.

#### **Action Area Four**

Backing winners - not backing specific outputs, but backing inputs which would allow great industries to grow, for example, increasing our level of research and development at a university level, with funding from government (see Action Area Three), is required.

#### **Action Area Five**

Building social capital (celebrating and displaying diversity):

- ◆ Early identification and addressing of problems in “at-risk” groups that may result in disengagement or non-engagement of parts of the work force.
- ◆ Creating an economic landscape that empowers marginalised groups to find solutions to issues facing their communities.
- ◆ Invest in appropriate cultural brands for the urban environment so that Auckland can visually take its place as the largest Maori and Pacific Island city in the world, and to continue to celebrate and brand ourselves with regular events.

#### **Action Area Six**

Unified Leadership:

- A single, agreed plan for Auckland that includes development of the Auckland economy and facilitates progress in enhancing all aspects of the Auckland region.
- A decision making structure that supports the development and timely implementation of the single plan.
- A decision making structure that is reflective of, and exemplifies the barriers of a culturally diverse international city.

#### **Some Specific Actions**

In light of these five action areas, the groups noted the following specific actions (these are not exhaustive):

- A clear decision-making arrangement agreeable at the outset to all Auckland cities, ARC and the central Government which will lead the development of medium term plans, coordinate, monitor and regularly evaluate the economic development performances of the region.
- Build a high-speed link to the airport, strong transport/freight links to Marsden Point and Mt Maunganui ports, and well-performing public transport and highway networks within the Auckland region – even if at the expense of infrastructure decisions in other regions, on the basis that the impact to the economy from enhancing Auckland’s (and New Zealand’s) gateway would be greater than allowing freight needs in Wellington and Christchurch.
- Having a national university ranked in the top two in Australasia would make far better funding sense than the current dispersed model– and could adopt flexible processes to operate centres of excellence around specialist research/product areas e.g. sports medicine, light metals, biotech, or whichever industries are identified as emerging. The University of Auckland should be that university, based on its existing strengths. It should be funded by central government (possibly with local government co-funding) to have

top-ranking research in agricultural bio-tech, health and engineering-related sciences. The better channelling of R&D funds – e.g. through “million dollar” chairs (described above), would have a greater impact than the current multiplicity of funding assistance programs for innovation activity.

### **Some Specific Non Actions**

In terms of actions that we need to stop – we need to stop under-investment in infrastructure and the dilution of action by investing in too many small matters (including the plethora of industry assistance programmes). The group agreed that existing infrastructure funding and existing funding levels of R&D are insufficient, and need to be addressed now.

### **Economic Transformation Expert Groups**

The Economic Transformation expert group consisted of the following people:

- Arthur Grimes
- Tim Denne
- Amokura Panoho
- Cathy Jordan
- Clyde Rogers
- Kelvin Norgrove
- Mose Saitala
- Simon Botherway
- Blaire Keenan
- Esther Calley
- Greg Mossong
- Lesley Baddon

The group Convenors were:

- Ann Magee
- Louise Marra

The group Navigators were:

- Simon North
- Nicolette Buddle

# Energy Paper

This Energy Theme Paper has been prepared as part of the START – Sustaining the Auckland Region Together project. The paper reflects a range of views and does not represent official positions of the organisations involved.

## 1.0 Introduction

This paper presents a summary of the expert group's discussion about the energy dimensions of a sustainable future for the Auckland region. It proposes 'end state goals' for energy, identifies opportunities and challenges that we will need to meet, and proposes a series of actions that might help to get us closer to the goal.

The energy expert group met twice, on 19 July and 27 July 2006. Discussion was wide-ranging, covering electricity, transport fuel and other energy sources. Key points raised in discussion included:

- ♦ Auckland's future is important to the prosperity of the whole country. Where Auckland goes, so goes New Zealand. Energy is a critical influence on this future.
- ♦ In the foreseeable future, Auckland's energy systems will be integrally linked with New Zealand's. Auckland will not be a self-sufficient energy producer.
- ♦ New Zealand's island status gives it a potentially different energy future from other countries. Do we want to be internationally dependent, or build on our island geography?
- ♦ In turn, should Auckland have a regionally independent energy system?
- ♦ Will Auckland and New Zealand pick up their performance regarding energy investment? The number 8 wire mentality can be extremely helpful: technologically savvy companies can help find solutions; but sometimes it means we look to do things 'on the cheap' rather than investing in longer-term solutions.
- ♦ Energy infrastructure choices have a long life. Within a 100-year timeframe though, it is feasible to transition to more sustainable options.
- ♦ What are our expectations for energy in the future? For example, should we develop different security requirements for different users?
- ♦ We have always made energy choices based on opportunities (e.g. hydro). Different opportunities exist today.

## End State Goals

**Self-Reliance:** New Zealand has aligned its economic, climate change and renewables choices to become self-reliant in sustainable energy supply.

**Resilience:** The Auckland region's energy systems are resilient to change, featuring diversity of supply, multiple transmission pathways, end-users who are able to adjust to unpredicted shifts and shocks, and flexibility to adapt to new energy technologies and circumstances as they arise.

**Security of Supply:** The Auckland region has a secure energy supply that is able to meet the economic and quality-of-life needs of the population, and recognises the consequence of failure (with differentiation between different security needs).

**Efficiency:** Per capita demand for energy services, including reticulated electricity, gas, and transport fuel, is reduced while our quality of life is maintained.

**Maintained/enhanced environment:** The natural environment, including climate, is not degraded by our energy choices. Where possible, we have also remedied the effects of others' energy choices.

**Lowest fair cost:** Sustainable energy is provided at the lowest fair cost to consumers, the community and the environment.

**Early adopter of new technology:** New sustainable energy technologies are rapidly adopted by industry and end users.

**Renewables are a high proportion of energy generation:** Starting from an already-high base, a high proportion of renewable energy generation supplies the Auckland region.

## Seeds and Constraints

The Auckland region is fortunate to have a lot of 'seeds' for sustainable energy that could be grown. These include:

**Natural strengths:** The region has a good potential base of renewables for small-scale generation (e.g. wind, ocean current/tidal and solar). Auckland and New Zealand enjoy high sunshine hours (global radiation at ground level). Potential for wind generation in the Auckland region is not as strong as it is in areas further south. However, there are areas along the West Coast that are identified as having a generally good wind resource (see Appendix 3 in the appendices section).

**Cultural strengths:** The number 8 wire, can-do mentality encourages flexibility to change and embrace new technology. Overseas experience exposes people to other lifestyle choices.

**Technological innovations:** More efficient technology is now available (e.g., Whispertech, smart meters). House retrofits and other incentive schemes are already underway. We know how to build new housing stock more efficiently. The Building Code Review (recommendations to be released end-2007) may help this.

**Drivers for change:** Shell and BP expect oil to last for 42 years, and gas for around 70 years worldwide: this is a good incentive to change. Rising petrol costs and winter power bills drive consumer interest in efficiency and are opportunities to encourage change.

At the same time, however, there are a number of constraints:

**Natural constraints:** Geography in the Auckland region is a limiting factor for large-scale renewable generation and presents challenges for the design of transport and energy transmission systems.

**Cultural constraints:** Although the drivers for change are becoming more immediate, we have had a complacent population. Capability and knowledge about sustainable energy options within the industry and trades is limited. The number 8 wire mentality can be a strength, but can also lead to 'quick fix' solutions. We also have a cultural resistance to rules and high expectations about our levels of mobility and flexibility – in other words, we like driving.

**Physical and technological constraints:** We are locked into existing systems, which will take time to change. The existing transmission grid is a major constraint. Infrastructure development has long lead times, so any transition to more sustainable systems could be slow. Supply systems have to be scaled to meet peaks, even though these are infrequent. Auckland tends to have seasonal rather than time-of-day electricity peaks, and even seasonal peaks may smooth out if summer cooling demand increases; these effects limit the benefits of demand side management. Our existing urban form and building stock is inefficiently designed from an energy perspective. For example, it's difficult to provide efficient public transport. Many new technologies (e.g. hybrid cars, solar generation) are economically unavailable to most consumers, especially when looking for short-term returns on investment.

**Institutional constraints:** There is a lack of regulatory baselines or boundaries to require more sustainable performance, especially if looking at plugging in increased distributed generation.<sup>7</sup> The region has only limited coordination of its energy systems, and weak links to other related strategies (e.g. the Regional Growth Strategy). There is a need for evidence, data and a compelling story, told with one (region-wide) voice.

## Impact of the Forces

Six 'Forces of Change for the 21<sup>st</sup> Century' have been identified as part of the START project, and presented in a series of working papers for debate. These forces have been identified as being likely to impact the Auckland region and its people over the next century.

Considering Auckland's energy future in light of the Forces, the following potential impacts emerge:

### Climate change

- ◆ a risk to hydro generation (lakes' size constraint will get worse if many catchments get drier as is predicted)
- ◆ possible change to wind generation potential (more westerly winds likely in some areas)
- ◆ changes to electricity maintenance planning (more frequent) due to extreme weather events
- ◆ increased temperature in summer leading to more air conditioning use
- ◆ additional population from climate refugees? Potentially more businesses locating here because of a secure energy supply.
- ◆ Energy choices will affect our contribution to greenhouse gas emissions
- ◆ Our response to Kyoto will affect energy choices and prices. Rising energy prices (especially for transport) could adversely affect NZ's global cost-competitiveness, which in turn might affect regional growth, the structure of our economy, and economic well-being. We will be exposed to an international price for carbon determined by global players. Also we have the potential to earn internationally tradable credits for renewable supply and sequestration.

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<sup>7</sup> Note that the Electricity Commission's purpose is, *inter alia*, to ensure that 'electricity is produced and delivered ... in an environmentally sustainable manner'.

## Demographics

- ♦ more overall energy demand with population increase but opportunities for more efficient use (e.g. with higher density housing, public transport, industry growth using efficient technology)
- ♦ aging population may mean less money is available for infrastructure investment
- ♦ changing household structure and energy use patterns, e.g. people home all day may use more energy<sup>8</sup>
- ♦ increasing hospital demand: good options for co-generation

## Resource availability

- ♦ electricity generation is reliant on water and hydro lakes. This could be affected by changing rainfall patterns, and increasing competition for water resources.
- ♦ loss of topsoil and productive land could limit biomass generation potential
- ♦ increased pressure for efficiency of use
- ♦ increased pressure on different resources (e.g. other heating sources, agricultural production for fuel rather than food)
- ♦ energy imports (oil and possibly gas): NZ is a price taker – changes in availability will lead to major economic impacts e.g. on exports, could drive the economy to smaller more valuable production
- ♦ Potential transition away from some major energy using industries towards activities that produce more value per unit of energy (economic transformation)

## Globalisation

- ♦ Potential increasing global instability increases the risk of reliance on international energy
- ♦ Possible emergence of global or regional trading blocs for energy
- ♦ Economic impacts of large-scale shifts to renewables (e.g. US) could set up cyclical effect, with OPEC decreasing oil prices in response. This could in turn affect the cost-benefit of investing in renewables
- ♦ Energy prices might influence NZ's place in international markets (e.g. tourism, exports)
- ♦ Kyoto and subsequent international commitments will shape energy futures
- ♦ Food miles vulnerability ... or the sustainable food basket of the world?

## Technology

- ♦ Could solve all our energy problems, but we can't rely on it. Future is uncertain.

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<sup>8</sup> It was noted that elderly people tend to use less energy in their homes, but this may change with the baby boomers. Rest homes can be high energy consumers. Warm homes contribute to health and quality of life.

- ◆ Increasing technology use can lead to increasing energy demand (e.g. computers).
- ◆ Rebound effects (e.g. once houses are insulated, people heat more of their homes).
- ◆ At same time, technology can improve efficiency (same devices using less energy, or substitution of different devices)
- ◆ Potential for greater interaction and substitution between energy forms for the same purpose (e.g. hybrid cars).
- ◆ In combination with increased energy prices, technology could lead to innovation in the end use of existing energy supplies, and to expansion of alternatives. It could change demand patterns (e.g. transport demand patterns could be altered by maturing of virtual technologies such as teleconferencing and telecommuting).

### **World views**

- ◆ Current view of energy abundance, but some consciousness of energy saving, e.g. periodic awareness over cold winters, particularly when they are also dry (which constrains electricity supply).
- ◆ Clash of civilisations (east-west) directly affects energy prices

### **Actions**

A number of the solutions to move towards the desired end state goals are already present in Auckland's energy system. Some, such as installation of medium scale renewables generation, are already being developed, others need to be further up-scaled or supported. Actions focus on incentivising change and lifting bottom-line performance.

It was noted that decisions about supply are primarily made by a small group of actors, whilst multiple consumers make decisions about demand. This could lead to quite different actions in these two spaces. Supply decisions are generally at the national-level, whereas consumption and demand management has great potential for regional leadership.

### **Overarching actions**

- Develop a shared understanding of the Auckland region's energy future, including the energy levels of service needed and performance benchmarks. Communicate clearly with providers, regulators and policy makers.
- Open dialogue with Wellington on the development of the National Energy Strategy.
- Manage risk and volatility to help set the investment climate (a central government action). For example, the business case for large-scale investment in renewable energy generation is vulnerable to volatility of rising and falling oil costs. Government could introduce measures to help to moderate this volatility and reward desired behaviour (i.e. investment in renewable options).
- Strengthen EECA's capability via the review of the National Energy Efficiency and Conservation Strategy.

- The public sector should be a market leader, making energy efficient choices in location, building design, vehicle fleet, and options for flexible working arrangements (e.g. teleworking).
- Work to advocate diversity of supply and to promote other end-state goals.
- Should the Auckland region make a Kyoto-style commitment to match the levels of commitment undertaken by European and North American cities?<sup>9</sup>

## Electricity/non-transport fuels

### Generation

- On right track with renewables generation (at the modest scale, not micro). Could be increased (acknowledging intermittency and system stability challenges).
- Remove barriers and provide incentives for small-scale cogeneration and distributed generation.
- Improve proportion of renewables to non-renewables, with individual PJ targets for hydro, wind, photovoltaics. A 100% renewable goal could be an international attraction for companies to use NZ as a secure and reliable business location and it would polish our international 'clean and green' image.
- Develop local bio-fuels and solid waste as potential reserve thermal fuel.
- Encourage energy supply companies to use renewables by selling energy services (e.g. hot water) instead of electricity or gas only.
- Create legal basis for investors in renewables to secure feed-in conditions over life time period (see: Germany's Feed-In Law). This could be piloted in the Auckland region.
- Explore potential for deep geothermal energy generation.
- Recognise lignite/coal as a current bridging step but acknowledge the significant challenges (e.g. greenhouse gases) that this source poses. Consider whether imported CNG/LPG would be a more sustainable option.
- Secure areas for wind generators in plans for long term development
- Identify areas (industry/commercial) with high demand/consumption to be targeted with individual energy concepts (e.g.:medium term plans including energy monitoring /controlling,+ micro cogeneration,+ large scale solar water heating and storage,+ demand reducing scheme,etc).

### Transmission

- Need adequate transmission networks for renewables.
- Look at trenching in roads for combined service delivery (gas, fibre optic etc.).
- Make a choice about transmission (overhead or underground). Aim for no overhead (transmission or distribution) lines in 100 years.

### Consumption and demand management

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<sup>9</sup> Note that ARC, Auckland City, North Shore City, Rodney District and Waitakere City Councils are already signatories to Communities for Climate Protection.

- Increase uptake of neighbourhood (and house) level interventions: heat pumps, back venting fires, passive design, insulation, solar hot water systems.
- Promote and enlarge storage capacity at the house level (i.e. hot water cylinders)
- Work on changing behaviour: smart metering, incentivising efficiency, make it possible to buy 'green' energy (as is possible currently by purchasing from Meridian).
- Improve streetlighting – dimming, solar technologies
- Promote direct use of gas as more efficient, and conversely, avoid gas use for electricity production when possible.
- Promote new concepts through pilot projects (e.g. green subdivisions, low energy apartments, commercial buildings using renewables and micro cogeneration systems)

## Transport

Improve public transport and urban planning

- ◆ ARTA to take into account energy futures in its PT procurement decisions
- ◆ Improve the convenience of PT relative to cars. Continue investment in rail: electrify and ensure power is from renewables (Kyoto commitment)<sup>10</sup>. (Relative efficiencies need to be explored. Maintain existing system, including double tracking)
- ◆ Investment in PT in general e.g. busway. Improve service features and marketing
- ◆ Improve urban form for walkability, accessibility. Nodal development. Queen St as pedestrian mall?
- ◆ Promote cycling and cycle networks
- ◆ Review balance of investment between roads and PT
- ◆ Encourage communications technology as an alternative to travel (IT, teleworking, unbundling local loop network)

Make cars more efficient

- ◆ Auckland to determine what kind of car fleet it wants
- ◆ Set minimum car efficiency standards
- ◆ Find a way to link air quality benchmarks to cars. Emission testing, catalytic converters, import standards (what benchmark?) – staircase introduction
- ◆ Encourage lighter weight cars
- ◆ Registration costs linked to vehicle efficiency (with provision for equity)
- ◆ Incentives to scrap undesirable cars?

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<sup>10</sup> Note that the ambition for renewable supply may not be possible within the short term. Current supply constraints mean that any increased demand will be most likely met with thermal generation. The issue points to the need to reverse the trend towards non-renewable energy generation, noted elsewhere in this paper.

- ◆ Recognise generally we're a taker of automobile technology → be a faster follower
- ◆ Explore how to ensure efficient freight movement

Produce bio-fuels in NZ, for example from waste biomass. May require some risk mitigation for investors if market failures exist.

## **Actions the Auckland region can take**

- ◆ Clarify who has authority/ability to determine future actions and choices.
- ◆ Set standards (e.g. overhead transmission, require new buildings to install solar hot water systems)
- ◆ Advocacy with Wellington, working with a coherent regional voice (current regional failure in coherence)
- ◆ Offer administrative cost incentives (e.g. via development contribution rebates and rates differentials, and/or free building consents) for energy-related improvements (e.g. solar hot water installation).
- ◆ Scale up existing programmes, e.g. EcoWise West home retrofits, HNZA retrofits. Migrate such schemes to the private sector, or look at how Councils can invest in retrofit programmes, on the basis of return of savings.
- ◆ Set local/regional targets to get houses insulated.
- ◆ Create a Warrant of Fitness for houses – energy labelling.
- ◆ Lead by example, with programs from Auckland region councils (such as energy saving and efficiency program in public buildings and infrastructure (schools, libraries, street lights, etc.))

## **Expert Group Membership**

The Energy Paper expert group consisted of the following people

- ◆ Bart van Campen, Auckland Energy Centre, University of Auckland
- ◆ Carolyn Judd, Mighty River Power
- ◆ Gerard Willis, Enfocuss
- ◆ John Small, COVEC
- ◆ Kaylene Cocker, Vector
- ◆ Robert Kirkpatrick, Auckland Energy Centre, University of Auckland
- ◆ Walter Breustedt, Eco Management Group Ltd

The group Convenors were:

- Gareth Wilson, Ministry of Economic Development
- Graeme Campbell, Waitakere City Council

The group Navigators were:

- Megan Howell, Auckland Regional Council
- Rose Leonard, Waitakere City Council
- Simon North, Ministry of Economic Development

**See *Separate Attachment for Appendices One to Four.***

# Environmental Quality

This Environmental Quality Theme Paper has been prepared as part of the START – Sustaining the Auckland Region Together project. The paper reflects a range of views and does not represent official positions of the organisations involved

## 1.0 Introduction

This paper presents a summary of the expert group's discussion about the environmental quality dimensions of a sustainable future for the Auckland region. It proposes 'long term goals' for environmental quality, identifies opportunities and challenges that we will need to meet, and proposes a series of actions that might help to get us closer to those goals.

In this paper, environmental quality refers to the integrity and life supporting capacity of the region's ecosystems and natural resources. The scope encompasses air, land, water and biodiversity as well as the unique characteristics of the region's landscapes.

The group discussed whether or not to limit the paper to environmental quality within the region. The region's environmental footprint impacts on environmental quality nationally and internationally while degradation of the environment globally can affect Auckland. We resolved that the region would positively contribute to national and global ecosystems if our long-term vision was to have an ecological footprint less than our landmass, and if the region's stewardship of its ecosystems and natural resources became a model for the rest of the world.

## Vision and End State Goals

### Overall vision

Auckland's natural character and iconic features provide Auckland with a unique sense of identity. As New Zealand's most populous region; Auckland's ecological footprint is smaller than its landmass. Residents value, protect and enhance the integrity and life supporting capacity of the region's ecosystems. Auckland is a world leader in environmental technologies and a showcase for enhancing the natural environment through resource management and urban design.

# Long term goals

## Liveability

The cities and suburbs wake to a native dawn chorus.

The built environment seamlessly connects people to the natural environment.

Residents perceive the natural environment as fundamental to their wellbeing and act as stewards of the environment.

The natural character of the coast, volcanoes and landscapes is protected and enjoyed by Aucklanders.

Everyone can walk to a park, children can play in urban streams and people can swim and fish in our estuaries and harbours

Aucklanders are healthier due to cleaner air, water and soil

The sustainable harvest of indigenous flora and fauna is possible

## Prosperity

Businesses thrive as stewards of the region's ecosystems and natural resources

The region's/NZ's economy thrives through the sustainable management of natural resources and the enhancement of the natural environment.

Fiscal processes enable a decoupling of economic transformation from environmental degradation

Auckland is a world leader in environmental technologies contributing to the quality of the region's environment and to economic prosperity

Residents all have access to clean air and water and the natural environment.

The regional community's concept of prosperity has moved beyond increased consumption to more socially and environmentally defined interpretations of well-being.

Local kaitiakitanga leadership in environmental management is of world renown

## Ecological Health

Thriving populations of indigenous wildlife (flora and fauna) are distributed across the region and are present in urban areas.

A full range of ecosystems in the region are protected and enhanced.

Marine reserves, which cover a representative range of ecosystems, cover 10% of the coast, to support a sustainable marine harvest

Stretching beyond the region, green networks connect large natural areas

The region's state of the environment reporting consistently shows improved results

Governance frameworks and institutional arrangements provide effective stewardship of the environment.

## Resilience

Indigenous ecosystems have been restored to a level of diversity and size that can survive shocks. There are reservoirs of indigenous species and habitats

The protection of productive soils, land and local food production create a thriving local agricultural economy and is sufficient to feed the region.

Local renewable, clean energy production provides the region's energy needs.

Government institutions value the environment and take a consistent and restorative approach to its stewardship

Local communities are the stewards of their local environments through adequate resourcing and devolved decision-making.

## 2.0 Seeds and Constraints

### Current status

The Auckland region is formed by three large harbours, volcanic cones, bush clad ranges, fertile plains and is edged by 2,000km of coastline. Its physical form provides Auckland with a unique sense of identity and when asked what contributes to their quality of life, Auckland residents consistently list the open space, the coast and beaches and the clean environment.<sup>11</sup>

Urban growth, forestry and rural activity however have significantly changed the ecology of the region. Historically, forest was the region's predominant land cover while today only 12% of the region's total land area remains as indigenous forest. Only 18% of the region's total land area remains as indigenous scrubland and it is believed that the region has lost around 90% of its wetlands.

Natural areas are becoming increasingly fragmented, reducing the resilience of many ecosystems and species. For example, of the remaining 296 fragments of forest, wetland and scrub in the Manukau Ecological District, 85% of the sites are less than 5ha in size. The Auckland region biodiversity has also been impacted. The region currently contains 188 threatened plant species and 150 threatened animal species.

Urban development has slowly eroded landscape values and reduced the amount of productive land with a subsequent loss of elite soils. The region's fresh water ecology has been degraded by sedimentation, agricultural and stormwater pollution, and from numerous streams being piped within the urban development. Zinc and copper are increasing in concentration in the region's harbours. A report in 2002 to the Ministry of Transport estimates that air pollution causes at least 486 premature deaths per year in the Auckland Region. Fifty eight percent of these (253) are due to motor vehicle emissions.

More positively 16.9% of the region's land area is now protected as public open space. Due to predator control, native bird counts in the Waitakere Ranges are increasing, possum numbers are the lowest on mainland NZ, and forest ecosystems have generally recovered over the last 50 years. Forest clearance and wetland drainage has declined due to incentives and rules in District and Regional Plans. Significant gains have been also been made through the development of mainland islands (e.g. Tawharanui Regional Park), gulf island restoration (e.g. Tiritiri Matangi Island) and covenanting of forest remnants and wetlands on private land.

There has been a huge increase in individual and group action to protect environmental quality but this is still limited to pockets of the regional community. Social responsibility for the environment now appears poised a cusp; it could drop away or given enough support, take off.

### Constraints and weaknesses

The societal belief that our prosperity requires ever-increasing growth and consumption has translated into an overt willingness to trade the environment off for development. This reflects a lack of understanding that the life-supporting capacity of the environment is critical to human survival. We continue to favour short-term needs over long-term goals and still believe that the market will provide a sustainable future.

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<sup>11</sup> Annual Environmental Awareness Surveys. Auckland Regional Council

There is a lack of coordination of decision-making and programmes within and between government agencies for environmental management and habitat protection. Our planning and problem-solving rarely uses an integrated systems approach, but tends to focus on one problem or solution at a time. We lose the opportunity to identify policies and projects that can solve multiple issues or achieve broader ecological outcomes while at times our interventions end up creating problems elsewhere. There is a general lack of policies controlling emissions from vehicles and domestic fires and a lack of mainstream water conservation policies and practices.

Auckland's urban form is largely divorced from natural systems, is inefficient of land use and heavily reliant on motor vehicles. It is also extremely difficult and expensive to retrofit. District planning and consent processes do not take into account accumulative effects of new development and rarely prohibits activities. There is not enough respect for district plan provisions by consent authorities.

There is inadequate funding for ecosystem and habitat protection, and stormwater, waste water and potable water infrastructure, and there is a limit to the public's willingness and ability to increase funding through rates.

Government and business have not addressed the long-term strategic implications of price hikes and supply issues for non-renewable resources such as oil.

Plant and animal pests have become one of the major threats to biodiversity and will require ongoing and expensive management. The region lacks data to understand the status of our productive soils and there is a disconnect between planning for land, urban and agricultural land use and the preservation of elite and other productive soils.

We have not fully recognised the opportunities and the effort required to engage society in sustainability. Communication on sustainability is completely overshadowed by the millions of dollars spent on commercial advertising to increase the consumer lifestyle. In addition, the media's coverage of sustainability is still limited and usually only provides sound bite analysis of issues.

## Impact of the Forces

Six 'Forces of Change for the 21<sup>st</sup> Century' have been identified as being likely to impact the Auckland region and its people over the next century. Considering environmental quality in light of the Forces, the following potential impacts emerge:

### Climate change impacts

**Challenges:** Climate change will increase pressure on ecosystems. Increased storm surges and sea level rise will increase coastal erosion and reduce coastal ecology. Climatic changes will result in the loss of biodiversity as some species struggle to survive, particularly at the fringes and edges of coastal ecosystems. There are likely to be new incursions of pests and tropical diseases. Agriculture may be affected and monocultures such as pine forests could be severely impacted.

Damage to stormwater and wastewater infrastructure in coastal areas and increased high rainfall events would increase wastewater and stormwater pollution. If coastal and flood plains become riskier to inhabit there may be more pressure for urban development in areas of high ecological value or productive land. Auckland may need to accept environmental refugees, which will increase pressure on land use and resources.

**Opportunities:** The impacts of climate change are a driver to accelerate action as the region has a small window of opportunity to build robust ecosystems, green corridors and buffer zones for ecological resilience. A focussed effort on the development of wetland, mangrove and estuary systems would create natural flood protection coupled with greater restrictions on development of the coast and flood plains. Climate change may be seen as an opportunity to adapt and establish different native flora and agricultural crops.

### **Resource availability impacts**

**Challenges:** Scarcity of resources will increase pressure on the region's ecology and natural resources. Economic recessions resulting from rising oil prices could reduce funding for environmental restoration. Rising oil costs will affect conventional agricultural practices dependant on petro-chemicals.

**Opportunities:** Auckland may be comparatively well off for water if we adopt demand side management early and NZ/Auckland could become self reliant on food. Resource costs may reverse the trend of consumerist life style choices, for example, oil scarcity may reduce private vehicle travel leading to reduced air and water pollution. Communities may be required to focus on local products and services leading to a greater self-sufficiency of local communities and social cohesion (for example, community based energy production, recycling human waste for agricultural nutrients, community gardens and recycling centres).

### **Technology impacts**

**Challenges:** This is the greatest area of uncertainty; new technologies could have transformative effects both positively or negatively on the environment. Pressure to consider nuclear energy (with its long-term implications regarding wastes) may increase as global warming manifests itself and if investment in renewable energy sources and technologies is insufficient to meet demand.

**Opportunities:** Auckland and NZ could become a global leader in environmental technologies, energy efficiency, and habitat and endangered species management. This would provide Auckland with niche markets whilst providing the means to manage our own ecosystems and resources.

### **Globalisation impacts**

**Challenges:** A scenario in which world/US markets collapse would lead to a NZ recession and reduce funding for sustainability management. Free trade agreements have potential to limit local environmental protection

**Opportunities:** As a small city, Auckland will need to play to its strengths for attracting investment, including preserving the quality of its environment (landscapes, air, water, beaches, harbours etc). Auckland could become a world leader in sustainability and environmental technologies. We have a limited, but unique potential to influence global worldviews and practices. Some fair trade agreements can contribute to environmental protection by adding emphasise to environmentally sound practices.

There may be the opportunities for massive habitat regeneration via carbon credits traded on the global market. Auckland's indigenous biodiversity contributes to global biodiversity and there is the opportunity to increase international agreements to enhance global ecology (especially for migratory species).

### **World views impacts**

**Challenges:** It is questionable whether the region can become sustainable without fundamental shifts in public and institutional values. We may see a continued trend of

consumerism resulting in resource depletion and waste, or an alternative trend to more ecologically based values and lifestyles. Belief in future technological solutions may inhibit timely action.

There could be conflicting values around human use of indigenous flora and fauna, with a preservationist worldview seeing indigenous fauna and flora as untouchable, while a Maori world view could consider sustainable harvests appropriate.

**Opportunities:** Auckland could turn the 100% pure brand into a reality, leveraging off NZ's growing sense of identity and Auckland's iconic landscapes. Urban design could connect people to nature and to natural systems. We could also focus on shifting worldviews to increase societal understanding of the fundamental role the environment plays in our wellbeing, and the interconnected nature of the "things" within ecological systems.

### **Demographic change impacts**

**Challenges:** Rapid population growth will erode productive land and place pressure on land with high ecological values. This will be accelerated by Auckland's continued suburban style development.

There is a trend (especially 30 years and under) towards a "me" society with a decline in civic responsibility. This poses a challenge for getting people to make decisions based on considerations for the environment and intergenerational equity. Auckland and NZ's aging population could result in less tax income and therefore less government funding for resource infrastructure and restoration.

**Opportunities:** New immigrants often have skills and values that can contribute to sustainability and can also bring entrepreneurial attitudes to develop more business opportunities that have a sustainable focus. They are often looking for ways to engage in their communities and programmes that encourage new immigrants into environmental action could be increased.

Despite the advent of the 'me' generation and the predominance of consumerism, there are young people who are committed to sustainable development. They need to be sought out, encouraged and supported.

### **Forces in summary**

The impacts of future significant growth in the region coupled with the six forces of change will place extreme pressure on the region's environment. Incremental change or a business as usual approach will not ensure the long-term life supporting capacity of the region ecosystems or protect its natural resources. The region will need to address its level of energy and resource use and it will need to substantially improve environmental quality within the region and not just maintain current levels.

A coherent and integrative approach across central and local government policies and plans is required to address the cumulative impacts of these various forces. Government, business and the community sector will need to make fundamental shifts and take rapidly accelerated action. We will need to become global trailblazers and be willing to invest heavily in our sustainable future.

## Actions

### Long Term Shifts

#### 1. **Winning over the hearts and minds of individuals, businesses, organisations landowners and decision-makers.**

“We must become the change we want to be” - Mahatma Gandhi

While recognising that current programmes exist, changing societal worldviews is a long-term venture and will require significant and coordinated effort. There are four critical “heart and mind shifts” required:

1. Accepting that environmental quality is fundamental to human survival as opposed to an aesthetic optional extra.
2. Increasing our sense of civic responsibility for current and future generations
3. Taking personal responsibility for our own individual influence
4. Acknowledging that the region will face enormous challenges and opportunities in the future and we will need to make some hard decisions and adapt to change.

The following inter-dependent approaches are recommended to achieve these shifts;

- Create tangible public goals to inspire people (e.g. the urban dawn chorus) and set milestones to demonstrate progress and maintain momentum. Create a sense of urgency by showing the challenges and opportunities of the future “forces”. Demonstrate the links between health and the environment.
- Demonstrate that all sectors of community are beginning to change. Showcase practical examples of best practice and demonstrate their benefits (on farms, in business, in households, within communities). Identify and develop leaders and advocates to influence their peers and increase our use of community networks.
- Provide programmes that support and build the capacity for change across all sectors of the regional community.
- Link people physically with the environment (including the marine environment) through urban form and design, open space and events and programmes.
- Ensure knowledge is shared between organisations and with the public. Demonstrate leadership by government agencies walking the talk
- Introduce a system that applies a monetary value to natural resources and ecological systems.
- Enhance buy in from business and industry through collaboration and pricing mechanisms

Regulation, economic instruments and education have to be well integrated, aligned and applied in practice. This will require that current policies are reviewed and developed to ensure regulation and economic instruments create bridges, not barriers, to sustainable practices. Whilst bringing the community on board, local and central government will also need to increase their role in regulation and enforcement to protect environmental bottom lines.

## **2. Land-use and urban form protects and enhances environmental quality**

- Take a systems approach to land use planning. Identify solutions that can solve multiple issues and make tradeoffs transparent. Apply systems procedures whereby environmental goals and procedures are standardised regionally, while ensuring that actions reflect diverse local conditions. Use catchment management planning as part of a systems approach.
- Protect priority landscapes, land and marine ecological systems and resources through greater prescription of land and coastal use, increased regulation and use of economic instruments.
- The design of urban form and the built environment should minimise negative impacts on ecological systems and seamlessly connect people to the natural environment. The region's urban form should enable us to live within our ecological footprint.
- It is unlikely that the market will adequately provide quality urban design that meets environmental and social objectives. Local government will need to increase its role in urban design and development including its use of regulatory and economic tools.
- Stormwater infrastructure should be based on low impact urban design with no contaminants entering waterways or estuaries.
- Pollution from transport should be below WHO guidelines.

## **3. Governance frameworks and institutional arrangements provide effective stewardship of the environment**

There are two key challenges for increasing the effective stewardship of the environment. The first is to achieve greater integration between government agencies. The means to achieve this include:

- Amalgamation of local authorities – virtual or real. The use of one district plan for the region that takes a more consistent and integrated approach to the natural environment and that replaces the current piecemeal approach.
- More cross ministerial groups working on a series of sustainability outcomes with local government.
- Increasing the scope for the Regional Growth Strategy with increased government collaboration within its review, implementation and political forum. Increase community buy-in to the growth model and intensification.
- Developing a set of sustainability principles and goals which are agreed to and implemented across national and local political agendas.
- Increasing collaboration between Auckland's local government agencies and central government agencies (predominately Transfund, Transit, Treasury, Ministry for the Environment, Ministry of Economic Development, Ministry of Transport, Department of Labour, Department of Conservation and Crown Research Institutes. This has begun with the establishment of the Government Economic and Urban Development Office but can be developed further.
- Increasing integration of bottom-up and top-down policy decision-making.

The second challenge is to achieve higher priority for environmental quality across all levels of government. Recommended means to address this include:

- Identifying key tipping points for ecological systems and their consequences to social and economic wellbeing.
- Central government considering their decision-making in light of all four well beings, just as local government is now required to do under the LGA 2002.

- A resource use taxation system and fiscal arrangements that align with resource consumption.
- More robust provision of government funding for environmental protection, infrastructure and restoration.
- Increased use of regulation and enforcement to protect environmental bottom lines.

## Catalyst actions

The group ranked a long list of catalyst projects and the overall priorities were:

- a regional plan and restoration programme for green corridors using a systems and an integrated catchments approach
- using scenario building in a provocative way to show people the consequences of their actions
- identifying key natural areas and landscapes that are no go for development
- providing incentives for low impact urban design and disincentives for non low impact urban design
- identifying a group of celebrities/ leaders to advocate sustainable living by their inspirational examples
- supporting community initiatives that demonstrate iconic sustainable actions such as re-vegetate a volcano or develop local/household production ability
- economic incentives to support protection of environmental.

Catalyst projects should be designed in a way that carefully selects and integrates sets of economic, regulatory and voluntary tools/mechanisms. The following is the full list of the group's proposals.

### **1. Create one regional environmental development plan for Auckland which would:**

- Focus on the restoration and long-term protection of green and blue corridors including ecosystem protection and enhancement, food production, bike and walking trails, green infrastructure and amenity values
- Focus on an integrated catchment management concept including urban development, ecosystem protection and enhancement, agriculture and food production, energy and transport
- Assess the cumulative effects of development underpinned by established baselines which meet internationally recognized criteria for land, water and air
- Identity key natural areas and landscapes that are "no go" and cluster housing & growth developments to avoid key landscapes & site lines
- Frame/engage developments and programmes around the harbours - taking water transport more seriously

### **2. Undertake a major green and blue network restoration programme based on the one regional development plan.**

### **3. Increase low impact design.** This could include one or all of the following:

- Incentivise low impact sustainable design including water, air, land and energy
- Create a low impact design sub-division which is not connected to main infrastructure
- Provide a **real** financial incentive for solar water heating

- Require a dual water management system for all new houses, water tanks and reticulation systems and subsidise household rain tanks for existing houses

**4. Develop and support community based initiatives which have multiple benefits.** These could include:

- Local resource recovery centres to dramatically reduce waste to landfill.
- Develop local/household food production ability within 25% of Auckland households

**5. Increase Environmental education:** This could include one or all of the following:

- Increase the Enviroschools programme and move focus to sustainable futures. Incorporate sustainability strongly into core curricular requirements
- Create an iconic environmental education and information centre
- Significantly up-scale level of sustainable development training across disciplines at University
- Implement a high profile multi targeted collaborative programme which uses scenario building out 100 years to show people consequences of actions and celebrities and community leaders to promote messages

**6. Actively restructure the use of economic instruments to deliver more sustainable outcomes, through, for example:**

- Addressing environmental quality outcomes directly by reviewing and revising all government economic instruments (taxes, rates, levies, charges, tradable permits, deposit schemes, subsidies and credits). This may include shifts to resource usage rather than income generation as a prime driver in a taxation regime
- Review current cost /benefit analysis systems and discounting rates for future benefits. This may involve zero based discounting on infrastructure or social projects and could include monetisation of commodities currently considered as externalities to the financial model
- Increase use of market-based economic instruments and incentives to support sustainable practice and to support protection of environmental values (waste management, biodiversity, air quality, green corridors, marine ecosystem protection, riparian fencing, etc)

**7. Reduce air emissions:**

- Introduce emissions standards for all vehicles.
- Develop maximum fuel consumption limits for all classes of vehicle entering the fleet (new and used imports).
- Introduce emissions testing as part of the WOF/COF.
- Adopt in-service emissions screening (e.g. remote sensing) for enforcement, education and monitoring.
- Stop removal/tampering with emissions control equipment such as catalysts.

## **Expert Groups**

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Michael LeRoy-Dyson, Ministry for the Environment,

***See separate attachment for appendix one, "Baseline data on environmental quality in the Auckland region".***



# Integrating Urban Form and Infrastructure

This Integrating Urban Form and Infrastructure Theme Paper has been prepared as part of the START – Sustaining the Auckland Region Together project. The paper reflects a range of views and does not represent official positions of the organisations involved.

## 1.0 Introduction

This paper presents a summary of the expert group's discussion about the integrating urban form and infrastructure dimensions of a sustainable future for the Auckland region. It proposes 'end state goals' for both Auckland generally and with regard to the specific theme of integrating urban form and infrastructure. This paper identifies opportunities and the challenge that we will need to meet, and proposes a series of actions that might help to get us closer to the goal.

By urban form we mean the spatial patterns and interrelationships that exist between:

- The landscapes and natural environment that the region sits within and the iconic features which relate to the city – the harbours, cones and rain forest clad ranges which have shaped the broad urban pattern; and
- The land uses within the region which provide locations for the living, working, cultural, community and recreational activities of people and communities; and
- The social and physical infrastructure that shapes, supports and underpins these activities, including assets like roads, rail, ports, power plants, water/wastewater, health, educational and civic facilities.

## 2.0 Goals

### Important Goals to add to the START Prototype

The following goals for Auckland Region are fundamental:

- ♦ **Uniqueness and identity.** Develop a distinctive "Auckland" identity and see this identity celebrated in its open spaces, but also increasingly in its buildings. We need a city region that suits us, that is world class, but in a kiwi kind of way – informal, fresh, multicultural, welcoming and well organised.
- ♦ **Pluralism and diversity.** An open and inclusive society, which understands, accepts and celebrates our bi-cultural past and the diversity of its future. Having a city form that provides many opportunities for people and

communities to mingle, share cultures and exchange viewpoints and participate fully will be important in building social cohesion.

- ♦ **Liveable and prosperous.** We need a strong economy to ensure we meet not only basic needs but we also offer equitable experiences and competitive opportunities. Liveability is also needed to encourage innovation and entrepreneurial behaviour. We need an urban form that promotes the exchange of ideas, concepts, skills and resources, just as much as one that promotes the exchange of goods and services.
- ♦ **Blue and green networks.** The harbours, gulf, cones and bush-clad ranges are fundamental to our identity and need to be treasured and extended. We need to maintain a definable rural hinterland both on the mainland and on adjacent islands where the built form is less dominant, so that we can provide a diverse living and recreating environment.
- ♦ **Resilience and adaptability.** We need an urban form and infrastructure that through adaptability, provides resilience to future changes in demographics, technology and world economic events.

### **Important Principles to add to the START Prototype**

The following principles for managing Auckland's future are important:

- ♦ **Inspiration.** We need to inspire greatness and innovation. We need to get people to rally around an inspired vision, reward people that do the right thing.
- ♦ **Communication.** We need to communicate what we want for an Auckland in 2106 so that we understand the level of change needed.
- ♦ **Collaboration.** We need integrated planning and delivery. We need joined-up effort in achieving goals as much as we need joined up thinking in developing goals. We need to promote collaborative behaviour amongst public agencies and get rid of the “Auckland disease”.
- ♦ **Affordability and Prioritisation.** Actions and interventions have to take account of affordability and be clearly prioritised. Some investment needs to be strategic and long term, not fragmented and short term.
- ♦ **Implementation.** Strategic documents need to have a focus on implementation, recognising that implementation issues (constraints on resources, skills, capacity and money) are the greatest constraint on achieving outcomes and goals.
- ♦ **Review.** We need to continuously increase our knowledge and understanding of the urban system. Continuous and ongoing monitoring of our assumptions and outcomes is necessary. We need to plan for uncertainty and periods of rapid change.

## Important Goals for Integrating Urban Form and Infrastructure

The following goals (in no particular order) are fundamentally important for Auckland's urban form and infrastructure:

1. **Extension of the blue and green networks in the region.** We need to link the currently isolated areas together and restore and enhance the natural environment, so that it's in a better shape than it is today. We need to retain the potential of rural areas and landscapes and avoid rural sprawl. Urbanites contribute to the protection of these areas through compact development and open space protection. We must not forget our Gulf Islands and the counterpoint they provide to mainland living; and
2. A **core network of adaptable, flexible infrastructure** that is delivered and maintained to a high standard and in an integrated way, with a mix of centralised and decentralised, but connected, components providing resilience. Vital is a layered and integrated transport and communications network, providing more choices to people about how they can get around their cities, meet with and interact with people, share knowledge and ideas, while supporting safe, liveable and attractive business and residential neighbourhoods. We need an infrastructure network that is responsive to new technology and demands and we need to identify and protect corridors to provide for this infrastructure; and
3. A **network of strong, self-sufficient integrated centres and neighbourhoods.** Auckland already has a strong core and a number of regional centres - we need to build and network our current assets and infrastructure to respond to regional and local needs. We need to be clear about our future growth areas, as over 100 years new areas will develop. We need to find ways to integrate growth efficiently into the regional pattern and ensure it is actively planned for and funded, rather than allowing a haphazard extension of the urban area on all fronts. Infrastructure needs to follow and network with planned growth and be within boundaries defined by the blue and green networks. We need to define what is regionally significant and to be shared by all. Self-sufficiency at the community level will mean ensuring communities have access to the things they need to sustain local activity; and
4. An **urban form that supports the economic dynamics** associated with the new economy- liveability, centres of excellence, agglomerations of knowledge-based enterprises, clusters of related businesses and an opportunity for and high quality agricultural production on the periphery. This means a focus on urban form that promotes and encourages the transfer of ideas, skills and knowledge, not just goods and services; and
5. Promotion of unique **character and identity** within the urban area that builds on our strong, dramatic landscapes, adding layers associated with civic buildings and spaces that speak of our bi-cultural past and multi-cultural future. We need new development that is of the highest possible standard and protects our heritage buildings and spaces. We want to be as proud as our buildings as we are of our natural assets; and
6. **Promoting social inclusion and wellbeing** through the provision of social infrastructure preferably ahead of development. Events, activities and spaces should promote interaction between people and communities, not isolate

them. We need an urban form that promotes recreational activities, supports fit, active, healthy communities with options for people to safely walk, cycle and recreate in their neighbourhood. We need more adaptable buildings and neighbourhoods that can respond to changing business patterns, demographics, and lifestyles; and neighbourhoods that can absorb changes in work, recreational and living conditions and can cope with a more diverse range of building types and activities; and

7. **A governance and legislative environment that encourages integrated planning and delivery.** We need legislative mandates that require integrated processes and co-ordinated outcomes<sup>12</sup>. We need funding streams that reward organisations and agencies that participate in integrated approaches to the planning and delivery of services and not create barriers to this occurring. We need governance and legislation that encourages efficient and effective decision-making at the appropriate temporal and spatial scales. We need a clear link between strategy development, decision-making, implementation and funding. Some decisions such as infrastructure needs to be made at the regional level whilst others such as neighbourhood parks and social amenities can be made at a much more local level.

### 3.0 Seeds and Constraints for Urban Form and Infrastructure

#### 3.1 Seeds for Sustainability

In terms of management and direction of change regarding urban form and infrastructure in the region, we should focus on the region's natural assets and past successes. 'Assets' are interpreted as intrinsic characteristics of our place and 'successes' are recognised as the positive consequences of past choices, and often occurred where our assets were preserved or enhanced through public decision-making (see table below).

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<sup>12</sup> For example, currently the RMA does not do this, but the LG(A)AA does.

Our Assets	Our Successes
<ul style="list-style-type: none"> <li>◆ Auckland region is blessed with extraordinary natural assets, most notably our harbour and beaches, volcanic cones and forested areas</li> <li>◆ We have a community that is diverse and the background rhythm of 'Polynesia' makes our city unique, interesting and attractive to others</li> <li>◆ Our city has pockets of architectural character and form that is valued by the community</li> <li>◆ Our city has a strong structure of centres that form important community and transport hubs, (even if many are performing poorly at the moment)</li> <li>◆ We have a well-educated society, which is open to new ideas and concepts</li> </ul>	<ul style="list-style-type: none"> <li>√ Our regional parks are spectacular</li> <li>√ Our water and wastewater systems work well</li> <li>√ We have proven that in some areas we can adapt over time, some of our housing stock is reflective of that (some of which has character and demonstrates a constant sense of change)</li> <li>√ We are creating mixed use and higher density areas that are supported by transport links</li> <li>√ Our CBD is revitalising (e.g. Britomart) and we have strong regional sub centres. These areas provide an insight to the city we want to become</li> <li>√ We have some quality urban environments and strong sub regional centres that indicate a priority to the future (Takapuna, Newmarket). We have some traditional areas such as Ponsonby that reflect character, diversity and longevity</li> <li>√ We have a Regional Growth Strategy that was signed up to by the elected leaders in our Region (1999).</li> </ul>

### 3.2 Constraints and Challenges

In order to move in the right direction towards achievement of the end-state goals identified for the Auckland Region's urban form and infrastructure, a number of issues and constraints will pose challenges that will need to be addressed (see table below).

Our Issues	Our Challenges/Barriers
<ul style="list-style-type: none"> <li>◆ We are still living off the investment decisions from the past. We try to squeeze more out of our infrastructure than what it was designed for – we are now at a cross-roads and need to make smart and long term decisions</li> <li>◆ We tend to operate around 'infrastructure led planning' therefore we are always chasing it</li> <li>◆ We compete for 'sub-regional' or local assets, such as stadiums, event centres etc and we are diluting resources and possibly quality, as a consequence we have problems achieving 'centres of excellence'</li> <li>◆ 40% of the region is dedicated to roads and off-street parking. We need the remainder for other infrastructure</li> <li>◆ We have \$10 billion committed to roads in the near future – this is not a sustainable solution given that traffic volumes are rising more than the capacity enhancements provided</li> <li>◆ As a region we are not self sufficient, we rely on our neighbours to supply us with our needs – this means we are vulnerable to change in supply or being cut off from essential services such as gas, electricity, fuel. How do we future proof our infrastructure?</li> <li>◆ We have a variable understanding and buy in to what sustainability is and means in the urban context</li> <li>◆ There are still a number of social inequities within the Region. Without attention to equity, we can't truly create a healthy cosmopolitan city</li> <li>◆ We have a diverse population and the size of different ethnic groups is changing. The wellbeing of Auckland's people in societal terms is determined in a large part by the networks of associations with in the community. Continuous strengthening of these associations is part of building a sustainable region and the infrastructure that supports it</li> <li>◆ How do we manage public acceptance of change? Particularly when the public horizon is frequently 3-5 years.</li> </ul>	<ul style="list-style-type: none"> <li>! We have a number of visions and strategies, but nothing shared to work from</li> <li>! We need to find a way around local parochialism</li> <li>! We are a city of cities, without one "leader"</li> <li>! We can't seem to decide if we are socially led or market led. This causes mixed messages for the public, developers and investors in our city</li> <li>! We have historical patterns of separating activities – which has an impact on the legibility and permeability of the urban form</li> <li>! When it comes to finding ways to respond to urban form and infrastructure issues we always see the stick and rarely the carrot (i.e. few incentives for change)</li> <li>! The geography of the isthmus is such that it forms a bottleneck, north and south. This constrains some of the ways we can respond to the infrastructure challenge. In other ways this is an opportunity to pursue our other transportation ideals</li> <li>! Our governance structures are such that we can't deliver a shared vision</li> <li>! Funding is always an issue – it is never secure or sustainable. Funding taps get turned on and off. Decisions on funding are often separate from decisions on vision and strategy.</li> </ul>

### 3.3 Our Opportunities

The opportunities that currently present themselves to advance a more sustainable urban form and infrastructure in the future are through:

- ♦ An awareness and interest in buying into a **collective vision and collective action** for the future. Auckland is at a crossroads and now is the time for our leaders to provide a vision that inspires the regional community and gives them hope in a collective and sustainable future without compromising local aspirations and identities.
- ♦ **Decision-taking.** We are a small (mostly), well-educated society. Through out our history we have made decisions and taken calculated risks on issues that are "ahead of their time". Once we agree a course of action it can quickly be understood and adopted across society (we can reflect this through examples such as our nuclear free policy). We need to take up the challenge for our urban form and infrastructure.
- ♦ **Investment in infrastructure.** A new cycle of investment in infrastructure is underway. Critical decisions are being made around transport, energy, wastewater. Investment can be shaped but we need to avoid making short-term decisions as they have long-term consequences. The way in which new physical and social infrastructure is delivered will be important in leading growth and change in the future.
- ♦ **A better understanding of our environment.** We are continuing to develop our understanding of the urban environment. As new technologies come through we should be able to better anticipate what the consequences of change will be – particularly as the population grows and demands on our resources heightens.
- ♦ Urban renewal: Some areas of the city are experiencing rapid change and redevelopment – we have an opportunity to **shape urban renewal** in a way that responds to our important longer-term goals.
- ♦ **Innovation and Technology.** We should see a major boost in the near future as unbundling of broadband occurs, allowing more choices over workplaces, hours, patterns and activities giving people more options to avoid bottlenecks and constraints. Over the next 100 years, there will be the emergence of differing forms of movement and transport systems that will provide different choices for the population.
- ♦ **Strengthening our economy through action.** High employment, Working for Families, possible tax cuts and the falling Kiwi dollar boosting the export sector indicates that the economy is strong and will keep growing - with strong investment in homes and businesses. People are more willing to look at different ways of paying for things/doing things during good times we need to make the most of this for long term benefits. Ten year LTCCPS have put the spotlight on local body finances and the unsustainability of current revenue sources. This provides the driver to look at more sustainable ways of doing things and paying for things. Rising fuel prices are likely to be a feature of the future – these will continue to push up costs of travel. Already, people are starting to change their behaviour, we need to find smart ways to encourage individuals and corporates to sustain this changed behaviour.
- ♦ Developing regional forums, integrated planning and **growing interaction** with central government.

## Impact of the Forces

Six 'Forces of Change for the 21<sup>st</sup> Century' have been identified as part of the START project, and presented in a series of working papers for debate. These forces have been identified as being likely to impact the Auckland region and its people over the next century. Considering Integrating Urban Form and Infrastructure in light of the Forces, the following potential impacts and opportunities emerge:

- ◆ Climate change and natural hazards: Global climate change is likely to benefit Auckland compared to regions in the wider Pacific and further afield are likely to suffer much greater changes. There may be a boost to agriculture and horticulture economies, yet there may also be an influx of people onto our shores looking for a more benign environment. This will change our demographics and impact on demand for open space, housing, healthcare and resources such as water. Physical changes through sea level rise or threats from increasing storm surges will impact where people can live safely. Unwise choices around new developments and investment in infrastructure could expose current and future populations to unnecessary hazards and mitigation costs.
- ◆ Resource Availability. Our access to water in various parts of the region may not be as free and accessible as it is currently. This may have implications for meeting our basic needs as humans and our supporting environment. Local access to resources such as water and international access to resources such as oil, will also have direct implications on where and what form growth can occur. The availability of resources may also have secondary implications for our economy. There could be a range of opportunities in how we use traditional wastes as a resource in its own right.
- ◆ Globalisation: Auckland (and NZ) is perceived as a safe, open, tolerant society with high educational and health standards – again this should see many more people attracted to the area. Aucklanders are very globally connected and the economy should benefit from the growth of economies like India and China. We need a city that helps to assimilate new migrants and gives them the opportunities that we have had. We need to tap into any competitive advantage we have as the world's biggest 'Pacific' city. We also need to harness the links with ex-pat kiwis in the global economy.
- ◆ Technology: Technology should provide many more opportunities for diversified and decentralised infrastructure, including transport, communications, energy etc. The impact of this on urban form is hard to predict, but it should see a much more complex "networked" city form to emerge. The knowledge economy is likely to widen the gap between skilled and unskilled workers, in both social and spatial terms. We need to find ways to manage this gap and not allow it to grow to a point where it is destructive within and between our community.
- ◆ Demographic changes: Auckland is likely to get much more diverse. Auckland will have sub-regional differences, younger in some areas of the region, ageing in others. Maori and Pacific Island cultures will become stronger. Migrant groups will grow in numbers, particularly the Asian sector. Many more migrants can be expected as the country, especially those seeking the lifestyle that Auckland can offer over other countries and cities. We need an urban form that helps to integrate diverse communities – cultures and people need to be able to express their identity, but in a pluralistic way, not in a xenophobic way. There will be changes in expectations, lifestyles,

saving habits and behaviours, which may impact our ability to finance our future.

- ♦ **World Views:** Some form of responsible individualism is likely to develop – greater choice and freedom for individuals, but within a framework that makes them more responsible for the costs of their choices, but also rewards them for desirable actions. This fits with the Kiwi mentality of caring individualism and a natural disdain of authority.

## 4.0 Actions

Actions, strategies and responses as means of achieving the end state goals for urban form and infrastructure. Six categories have been identified as important.

### **Extension Of The Blue And Green Networks In The Region**

#### *Key Action*

- ♦ **Define and agree on the ‘no-go’ areas and develop creative public/private protection mechanisms.**

#### *Supporting Actions*

- We need to define and agree on no-go areas in terms of where urban impacts should and should not be permitted to occur (noting the quadruple bottom line for outcomes). Centre/peripheral/edge relationships need to be better defined in terms of land use policy. We need to reflect the differences in the urban and rural community. We don't want sprawl but there is pressure and tension at the edges.
- The delivery of the above does not have to be solely through public ownership. Some networks are physical connectors whilst some carry out important ecological functions and others are simply visual. To promote these networks we need to be flexible about ownership and create incentives for landowners to protect features and landscapes.
- Our regional parks are excellent, but better urban parks are needed with more cycle and walking paths. Non-motorised access to coastal, open space areas is very important and island experiences add value.
- Connectivity and scale of networks is important, along with enhancement and protection. For ecological reasons it's not all about use by humans. Mapping of future ecological corridors is needed.

### **A Core Network of Adaptable, Flexible Infrastructure**

#### *Key Actions*

- ♦ **Create a framework for centralised and decentralised decisions around infrastructure (including prioritisation and funding sources) that links to a shared vision.**
- ♦ **Find ways to optimise the infrastructure that we already have and smooth the path to building new and necessary infrastructure.**

### *Supporting Actions*

In terms of the network:

- There will be at least two pathways to respond to future pressures (e.g. difference between the developed CBD and rural areas). One will be a centralised response, the other a decentralised response. Decentralisation will have to come with responsibility. A centralised regional monitoring system is needed where we go down a decentralised path.
- We need to change our approach to resource use and waste. A world class city will take care of its waste and will treat its waste as a resource and identify innovative approaches to implement this in a staged way.
- We need infrastructure providers to integrate their systems, e.g. by using corridors for multi purposes (telecoms, rail, pipes all in the same corridor)
- We need to be aware of new technologies and have a much greater horizon about these. Future proofing decisions is necessary. Development today needs to think about emerging technologies tomorrow (this needs to be mainstreamed).
- We need to look at incentives, (e.g. legislative and financial) to promote integrated planning and development. We need to reward people for doing the right thing.

In terms of investment

- There needs to be a greater association between the user and the payer. We need to get the “externalities” back into the system to plan for and reflect true costs.
- There is the ability to reduce “wastage” and spend our resources better, to use our existing assets better rather than constantly add capacity.

In terms of delivery:

- We need to make use of tools like building code and housing standards to allow for alternatives and promote or require site based and neighbourhood solutions where needed.
- The “fine grain” of the network needs to be considered as much as the bigger trunk services, especially in relation to transport and stormwater.

## **A Network of Strong, Self-Sufficient, Integrated Centres and Neighbourhoods**

### ***Key Actions***

- ♦ **A strong regional core that focuses on what is regionally important to Aucklanders. We need to jointly invest in shared, high quality, world-class urban form and infrastructure.**
- ♦ **At the same time as the above, we need to enable initiatives that provide an opportunity to integrate and share networks at a neighbourhood level. Networking in this sense reflects on schools, transport systems, retail and civic activities at a local level.**

### *Supporting Actions*

- Auckland is a polycentric city, with a cluster of centres in the middle (CBD, Newmarket, Takapuna, Ponsonby) and a range of centres in outside of the CBD. Satellite centres in surrounding regions developing over time and we need to get the relationships between these centres right.
- A strong regional core is required to promote transformational economic growth productivity and community innovation (but this does not mean one centre, rather an integrated set of centres in the core area), along with flourishing sub regional centres. At the local or neighbourhood level we need enhanced local and town centres, mainstreets and activity corridors.
- Specific regard needs to be given to passenger transport. Efficient passenger transport-based movement in the core regional activity corridors is very important.
- Price signals need to reward activities that reduce demands on network infrastructure (and the environment) through greater use of charges, levies and user pays and the promotion of on-site or localised solutions.
- We need a regional approach to the identification, delivery & maintenance of region wide community, cultural & recreational assets, e.g. each “City” cannot have its own opera house. We need local needs to be met locally and regional needs met regionally on an equitable basis.
- We need to be cognisant of the identification of centres that have rational and logical community and commercial reasons for being. We also need to support regional centres where greatest mass and community concentration occurs for it is here that accessibility is greatest for most and that more regional or sub-regional facilities can be focussed.
- We need an urban form that responds to technological change and the development of communication networks. We need to facilitate and create support for this to happen (get people’s heads out of the sand that the city will stay the same). This will require a stronger regional approach to intensification and/or redevelopment of some centres – in terms of communication, zoning provisions and infrastructure investment.
- Over the next 100 years, new growth centres / areas will develop beyond what we have defined as the urban limit at both the intra and inter-regional scale. We need to develop ways of integrating these into the regional pattern – we need to define the networks and tools we can use to help circulation to from and around these centres in a sustainable way. We need to avoid a haphazard approach to growth corridors outside the region. Any future urban expansion needs to follow transport and infrastructure networks and stay within boundaries defined by the blue and green networks.
- High quality private investments in spaces and buildings in centres will only come about where there is a degree of certainty over future market conditions. The same applies to public infrastructure. We need to reinsert some form of “stability” outcome back into the planning system, not to ration or stop growth. This means some form of directional control on development rates – and more certainty about supply.
- We need to communicate the benefits of our growth choices (density, innovation, investment) to people and we need planning systems that reward the right development in the right place.

- Robustness and adaptable buildings is important in these centres. Street life is critical - we need the café, not the mall.

## **Urban Form That Supports The Economic Dynamic**

### ***Key actions***

- ♦ **Provide certainty to the economy, by having a clear vision and strategic direction and making sure we fund the ‘right’ things in the ‘right’ places.**
- ♦ **Promote/require an urban form that is adaptable to the changing economic role of Auckland – with particular regard to changing technology and work-life patterns.**

### ***Supporting Actions***

- A strong regional core is required to promote transformational economic growth and community innovation (but this does not mean one centre, rather an integrated set of centres in the core area), along with flourishing sub regional centres. At the local or neighbourhood level we need enhanced local and town centres, mainstreets and activity corridors.
- High quality private investments in spaces and buildings in centres will only come about where there is a degree of certainty over future market conditions. The same applies to public infrastructure. We need to reinsert some form of “stability” outcome back into the planning system, not to ration or stop growth. This means some form of directional control on development rates – and more certainty about supply.

## **Promotion of Character and Identity**

### ***Key Actions***

- ♦ **Improve the relationship between the valued natural features of Auckland and the built environment/urban form through involvement and experimentation**
- ♦ **Find ways to help communities express their cultural identity through more innovative and adaptive use of public and private space.**
- ♦ **Ensure major infrastructure contributes to character, identity and shared vision**

### ***Supporting Actions***

- While we appreciate the natural landscape, we need to better understand exactly what identity and character means for different cultures and communities with regard to the urban form/built environment.
- Experimentation in the built environment is needed. We haven’t yet found the right range of building forms for our climate, landscapes and our communities. We can’t base our view of what a good urban form is on historical models of the small rural village, or the informal coastal settlement; images which always seem to be in people’s minds when they talk about the ideal NZ settlement. Neither can we rely on overseas models. We need to encourage and allow for testing out different ways of doing things. As a first step, we should experiment more with the public urban form and space, designing these through involvement and in a way that better reflects identity.

- We need better tools to start to understand and express the social and cultural identity of any given area. Communities need to find ways to express success. This is probably best done through the promotion of involvement and interactions between cultures and people with different social status in the ‘third space’ – e.g. public space that is not the private home or commercial spaces like malls. Events in common spaces, like Pacifica, the Lantern Festival help build identity and character.
- We need to be cognisant and understand future cosmopolitan Auckland and focus on those places and spaces that draw people together. Promenades, like Mission Bay are spaces where communities come together in all its richness and diversity – we need more of them.

## **Promoting Social Inclusion and Wellbeing (through social infrastructure)**

### ***Key actions***

- ♦ **In recognition of a changing profile of our community we need to develop tools to measure and promote social inclusion in urban development and redevelopment.**

### ***Supporting Actions***

- We need to tangibly plan the provision of social infrastructure. We need to develop criteria related to how we measure social wellbeing and consider what are the provision requirements in spatial terms. We need to give social infrastructure the same attention we have given to transport, wastewater and other forms of infrastructure.
- This could be achieved through tools to audit social infrastructure needs. We need an up-front social audit of new development proposals. From this we can begin to assemble tools to help define what does social infrastructure look like on green and brownfield sites and consider optimal provision.
- We need to acknowledge the impact of all infrastructure on urban form and its associated impact on networking, mobility, social inclusion and well being.
- We need to land bank for social infrastructure. We need to start pushing for inclusionary approaches to zoning (making sure things get added in to developments so that they provide more equitable and inclusive environment, like affordable housing, space for local community activities, local workplaces), rather than always trying to exclude things.
- As with other infrastructure, there we need to consider decentralised vs. centralised approaches to the provision of social infrastructure.
- In relation to all the above, we need to be cognisant that it is not just about real estate. We need to provide adaptable spaces and be creative about the use of the ‘third space’.

## **A Governance and Legislative Environment that Encourages Integrated Planning and Delivery**

### ***Key action***

- ♦ **A system of governance that enables collective and accountable regional decision making within a clear, defined and prioritised framework, whilst providing for self-determination at the local level.**

### *Supporting Actions*

At a regional level we need a governance regime that:

- Is more strategically focused and directional (this could be through legislative reform). What we need is directive legislation that flows down enforceably for matters that are of regional significance<sup>13</sup>.
- Has a process for the prioritisation of crucial regional outcomes that ensures fiscal responsibility and a focus on areas of change.
- Has a clear set of “rules” (sustainability - quadruple bottom line) that can apply to the range of agencies involved in regional and local decision-making.
- Can deliver regionally significant projects in an efficient way. This includes providing the funding mechanisms to ensure that what is committed to is not changed or re-litigated over short-term political cycles.
- Creates incentives for involvement and problem solving at the local level and among agencies.

At a local level we need:

- Community level engagement for local issues and needs but within a framework of shared expectations and shared responsibilities.
- More of a “parish council” approach – where local networking and decision-making is overseen by the regional community, where there is community partnership and ownership and where all is brought together (public, private, churches, marae).
- Appropriate representation and consciously built networks of association that allows for opposition, but does not buy into parochialism.
- Approaches that reward good behaviour through the application of funding and grants to communities that are organised and committed to shared goals.

### **Urban Form and Infrastructure Expert Group**

The expert group was made up of the following people.

**David Mead**, Hill Young Cooper; **Michele Daly**, Kestrel Group; **Simon Taylor**, Watercare; **Gary Taylor**, Environmental Defence Society. ARTA Board Member; **Anthony Flannery**, Chow Hill; **Allan McGregor**, IMF New Zealand; Rick Thompson, Ports of Auckland; **Robin Dunlop**, Independent; **Kepa Morgan**, University of Auckland

The group Convenors were:

- **Ree Anderson**, Manukau City Council; **Matthew Everett**, Ministry for the Environment, Wellington.

The group Navigators were:

- **Fiona Knox**, Auckland Regional Council; **Anthony Williams**, Ministry for the Environment, Urban Office, Auckland.

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<sup>13</sup> RMA reforms have started this, but the ambit of the RMA is too narrow for a metro region. What short term response is needed from the LG(A)AA, Regional Growth Strategy and District Plans, Urban Design Protocol?

# Social Development

This Social Development Theme Paper has been prepared as part of the START – Sustaining the Auckland Region Together project. The paper reflects a range of diverse views and does not represent official positions of the organisations involved.

## 1.0 Introduction

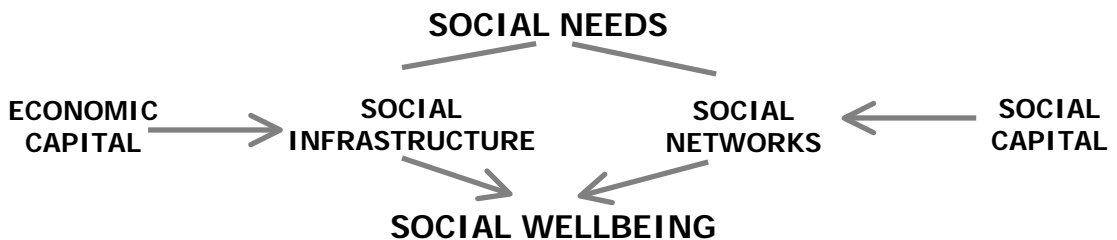
This paper presents a summary of the expert group's discussion about the Social Development dimensions of a sustainable future for the Auckland region. It proposes 'end state goals' for Social Development, identifies opportunities and challenges that we will need to meet, and proposes a series of actions that might help to get us closer to the goal.

### 1.1 Definitions and scope of the theme

The concept of "social development" and its definition is a matter of debate. The starting point was how we enhance "social well being" through the mechanisms or channels used to address social needs. The expert group adopted the idea that:

- ♦ Social networks are the channels and connections which people use to meet their social needs
- ♦ Social capital is the level of trust we have in others and the degree of connectedness which we have with civil society
- ♦ Social infrastructure is the structures and systems which provide services to meet social needs
- ♦ Human capital or individual's health status, skills set, knowledge and experience contribute to social capital within a community and often forms the basis of social need

Conceptually this can be explained as follows:



In this way we can see social development as a planned process to address social needs that results in promoting the wellbeing of the population as a whole. It aims to improve a wide range of outcomes including health, education, housing, employment, living standards and safety.

This planned process involves both social protection and social investment. Through social protection, we support people with services and other assistance when they need help and are unable to support themselves. Through social investment, we

strengthen the ability of individuals, families and communities to improve the capacity of people to deal with adversity and improve their own situation over time

Social development is seen as involving individuals, households, families, communities, non governmental organisations, and government (local and central), each with specific roles to play in promoting the social well-being of our community.

*“We need strong social institutions, strong families, and strong communities to thrive in a demanding global environment. We have to invest in people as a top priority, so they feel secure and are able and willing to participate in our society and to face the challenge arising from constant change. Communities do not become strong because they are rich; they become rich because they are strong  
The Hon Steve Maharey – Minister of Social Development (2004) –  
“Opportunities for All New Zealanders” – Ministry of Social Development*

## 2.0 End State Goals

The expert group has identified the problems of deepening poverty and multi-generational welfare dependency within some communities as being a matter of serious concern. These problems in turn pose broader risks to social cohesion in some parts of Auckland region and subsequently pose the real possibility that social polarisation will become a permanent feature of Auckland’s social landscape.

To address these problems and trends, the expert group has identified three dimensions across which social development has to happen. **People**, their living and social conditions, the opportunities they have, and the way that they are treated, are fairly central to social development. **Social institutions** be they at a family level, community or social level or in market and state organisations are important shapers of the opportunities people have throughout their lives. Social processes happen in real **space** so the physical environment that we create has an impact both on these processes and the lives of people, their families and their communities.

The broad ‘end state goal’ for the social development theme is:

*Auckland is a fairer region where strong social institutions support healthy, vibrant and safe communities in places which are liveable attractive and well connected.*

This goal is supported by an overall approach which seeks to build links between people, between social institutions and between places. The detailed end state goal is as follows:

*A fairer region where*

- ◆ People are able to thrive with access to sustainable employment, essential services and affordable housing
- ◆ People are healthy, well educated, well informed, and equipped to fully participate in the social, economic and cultural life of their community
- ◆ People are resilient, well equipped with the core skills, to enable them to adapt and change in an ever-changing world
- ◆ People feel safe in their safe in their homes and communities

- ◆ People acknowledge and respect the values and rights of others and the law of the land.
- ◆ People have aspiration, hope and the opportunity to succeed
- ◆ There is strong social investment and early intervention directed to address disadvantage, and to limit significant disparity and polarisation by reason of social – economic disadvantage

*Strong social institutions (families, communities, organisations) which*

- ◆ Are effective, responsive, and there when you need them
- ◆ Work well with other social institutions and plan for the longer term in an integrated way, using a strong common knowledge base about what is happening
- ◆ Are resilient and well equipped to adapt and change in an ever-changing world

*Healthy, vibrant and safe communities in places which are liveable attractive and well connected by*

- ◆ Urban form that actively contributes to safer and more healthy communities, and social and other infrastructure that is equitably distributed and well matched to growth
- ◆ A strengthened social emphasis in land use strategies, infrastructure planning (especially transport), and retrofitting existing communities to positively assist people to access work, essential services and recreation and leisure activities, with a key aim to avoid creating disadvantaged communities.
- ◆ A strengthened sense of responsibility & connectivity within communities (eg inter-generational interaction), and between communities (eg both spatially and across those with differing socio-economic conditions)
- ◆ Strong participation in a broad range of civil and political forums with strong community leadership

*The issue of identity and belonging, whilst clearly relevant to the social development theme has been deliberately put aside and left to the cultural diversity and social cohesion theme paper.*

## **3.0 Seeds and Constraints**

### **3.1 Seeds**

- ◆ The growing youth population with its vibrancy and potential for innovation
- ◆ The growing elderly population with a wealth of experience and skills to draw upon
- ◆ Auckland's diverse community and the potential point of difference offered by Maori and Pasifika culture
- ◆ The capability to provide early intervention and social investment with a particular focus on key issues like health and education

- ◆ Well established communities structures of support and leadership (eg churches, sport clubs, residents' groups).

### **3.2 Constraints**

- ◆ Persistent and growing inequalities in incomes, education, health and housing with significant pockets of social deprivation leading to increasing risk of polarisation between communities. (These pockets are likely to coincide with population groupings that are likely to constitute the majority of the home-grown workforce of the future)
- ◆ Inter-generational welfare dependency left unchecked leading to lost human potential
- ◆ A tolerance of violence in our communities and in particular high levels of domestic violence against women and children
- ◆ Rising levels of obesity and the resulting health and social problems
- ◆ That inadequacy of resources in some communities to cater for the needs of more disadvantaged migrants while also addressing the needs of existing populations
- ◆ The absence of shared values across our diverse population bases which may increase the vulnerability of the more disadvantaged people and communities

## **4.0 Impact of the Forces**

Six 'Forces of Change for the 21<sup>st</sup> Century' have been identified as part of the START project, and presented in a series of working papers for debate. These forces have been identified as being likely to impact the Auckland region and its people over the next century. The Forces are seen as having the following potential impacts on the social development theme:

### **4.1 Demographics**

- ◆ By 2050 Auckland will be home to 40% of the NZ population but will be different from anywhere else in NZ in the diversity, mix and age structure of its population
- ◆ Auckland will generally have a younger population than the rest of NZ. Some parts of Auckland will be more youthful (e.g. more than 40% of Manakau's population is aged under 25 years) whilst others will be less so. It will also have a swelling population of elderly who will work and contribute to society for longer, but will also increase demand on health resources
- ◆ Auckland will be less European, more Asian, more Pacific, and possibly less Maori - in the next ten years over half of all Aucklanders will NOT be European. It is expected that the largest ethnic minority will be Asian, then Pasifika, then Maori
- ◆ Immigration will continue to be a dominant force in Auckland's future - approximately 65% of migrants who arrive in New Zealand stay in Auckland

## **4.2 Globalisation**

- ♦ The region will become increasingly socially complex, cosmopolitan and different to the rest of New Zealand. Global trends will increasingly be seen first and felt more strongly in Auckland.

## **4.3 World views**

- ♦ There will be a more diverse range of world views than ever before, with the potential for a real lack of consensus on social and other related issues. The shift to a broader range of institutions, the increasing focus on specific sections of the community, and their more diverse and disparate approaches have accelerated this trend.

## **4.4 Climate Change**

- ♦ Climate change could significantly affect society through a diversity of impacts; rising sea levels could change land use and dislocate existing seaside communities; increases in tropical and waterborne diseases may negatively impact on the health of those living near estuaries

## **4.5 Technology**

- ♦ Technology and familiarity with it can positively change the way society operates (eg work / transport patterns and tele-working), but it can also negatively divide (ie the digital divide between those with access and those without).

## **4.6 Resource availability**

- ♦ Possible depletion and increasing costs of resources (eg paying more for water from the Waikato) may have the greatest impact on the most vulnerable

## **5.0 Actions**

The overall approach to meeting the end state goals is to build links or relationships between people, institutions and places. The absence of these links and relationships is the fundamental reason for the emerging social exclusion and polarisation which the Auckland region faces. It is expected that any catalyst actions developed through the START programme will take this approach and build specific responses around projects or programmes which encompass a number of other themes as well as social development.

### **5.1 A fairer region**

- ♦ Increased focus on social investment, early intervention and prevention work aimed at disadvantage, recognising the potential benefits to the social, economic and cultural life of the community
  - More early childhood interventions (particularly around education, health and housing) that ensures that they are ready to learn and able to attain educationally

- Additional support for teenagers to attain educationally, have the core life skills for adult life, and to successfully transition into employment or training
  - Strengthened support for disadvantaged families (particularly those with intergenerational dependency) to break the cycle of poor parenting
- ◆ Breaking down the cycle of intergenerational benefit dependency with an emphasis on moving people into employment, education or training wherever possible
- ◆ Build requirements for developers to make provision for affordable housing into urban growth management policies.
- ◆ Creating opportunities for individuals to participate fully in family, community and civic life, with a specific recognition of the region's youthfulness and diversity

## **5.2 Strong social institutions**

- ◆ Spatial social plans to better coordinate the work of social agencies in defined and prioritised geographical areas
- ◆ Strengthening schools to operate as a key centre for communities (eg Otara Schools project)
- ◆ Expanding the range of community based organisations used to deliver programmes eg churches, sports clubs etc eg Lotumoi campaign against obesity by CMDHB
- ◆ Work with philanthropic funders to assist them to direct their assistance to communities in ways which meet identified social needs and social objectives.
- ◆ Further development of 'One stop shop' to better integrate services (eg Auckland settlement strategy, joint Work and Income / HNZN service centres
- ◆ Establishing a regional social issues forum, which brings together central and local government together with community based organisations

## **5.3 Strong healthy and vibrant communities**

- ◆ Building a social dimension and considerations into the Regional Growth Strategy
- ◆ Undertaking health and social impact assessments for local and central government policy decisions and major infrastructure planning
- ◆ Planning development patterns which fully utilise existing social infrastructure (avoiding underutilisation or overloading of facilities like schools and health facilities
- ◆ Building the capacity and capability of social agencies to understand and input into physical planning processes, and providing a strong evidential base to that input

## **Expert Groups**

The expert group was made up of the following people.

- ◆ Campbell Roberts, Salvation Army
- ◆ Aireni Tukerangi, Te Whanau o Waipareira Trust
- ◆ Sharon Wilson, Tamaki Ki Raro Trust
- ◆ Margie Fepuleai, Counties-Manakau District Health Board
- ◆ Diane Robertson, Auckland City Mission
- ◆ Peter Sykes, Mangere East Family Service Centre Inc

The group convenors were:

- ◆ Louise Mason, Auckland Regional Council
- ◆ John Bassett, Ministry of Social Development

The group navigators were:

- ◆ Alan Johnson, Auckland Regional Council
- ◆ Bethli Wainwright, Ministry of Social Development

Local and central government officials who provided support were:

- ◆ Kim Morrese, Waitakere City Council
- ◆ Raewyn Stone, Manukau City Council
- ◆ Alison Dow, Ministry of Youth Development
- ◆ Bruce Adin, Ministry of Education
- ◆ Greg Mossong, Housing New Zealand Corporation
- ◆ Theresa Fabricius, Ministry of Pacific Island Affairs
- ◆ Kellie Coombes, Ministry of Social Development

***See separate attachment for appendix one, "Historical Background".***