

Wellington Regional Strategy

Selection of Focus Areas

Prepared for

Wellington Regional Strategy Project



May 2005

1. Introduction

The Wellington Regional Growth Strategy (WRGS) is a process for developing an integrated economic development and land use management plan for the Wellington Region. The study incorporates the area administered by Greater Wellington Regional Council and includes the territorial councils of Kapiti Coast District, Porirua City, Upper Hutt, Hutt City, Masterton District, Carterton District, South Wairarapa and Wellington City.

The WRGS has to date developed a Vision for its Strategy along with regional Outcomes and regional Issues. The next step was to develop a set of economic and urban form Focus Areas for the region to enable it to focus on particular actions that will bring economic growth to the region.

The project brief for this part of the strategy exercise requested selected consultants to consider and then select the most appropriate and effective economic urban form focus areas for the strategy. The logic for these focus areas needed to be justified and a good focus area should do the following:

- Work towards the strategies vision and the regional outcomes
- Address at least one of the identified regional issues
- Have a proven track record
- Suit the Wellington context and be deliverable by local authorities
- Be compelling and galvanising
- Direct efforts to where there is a proven market failure
- Be potentially highly effective
- Carry an acceptable level of risk.

The prime purpose of this report is to outline the set of 6 focus areas that have been developed by Urbanista Ltd which were presented to the PEG group on the 6th of May 2005. The focus areas are:

- 1) Supporting the CBD with key multi functional Sub Regional Centres
- 2) Redeveloping the CBD Fringe via Transit Orientated Development
- 3) Reduced Infill Housing Provision
- 4) Introducing Metropolitan Urban Limits
- 5) Developing an urban Land Monitoring System
- 6) Urban Design and Urban Icons as Marketing Tools

The focus areas proposed in this report are all in line with the strategy's vision. The focus areas are also in line with recent New Zealand Government legislative and policy direction. This includes direction given by the New Zealand Transport Strategy, the Land Transport Management Act and the Urban Design Protocol – and while it does not apply to Wellington directly the Local Government Auckland Amendment Act (LGAAA) (2004). The LGAAA in endorsing and legislating for the Auckland Regional Growth Strategy supports the concept of urban growth by way of urban consolidation and in particular by (re)developing compact mixed use centres developed around public transport provision.

As a result all of the focus areas discussed in this report are able to be achieved by local government within the New Zealand context. The focus areas developed have not simply been taken from Auckland and other world cities and applied to Wellington. Rather after studying the background reports and analysing the current urban form of Wellington with its linear growth, myriad of opportunities and current level of transport investment, it is apparent that Wellington is well suited to the development of a compact and public transport supportive urban form - in particular parts of the city.

For this reason the first two focus areas (sub regional centres and CBD fringe transit orientated redevelopment) have been chosen. The next three (infill housing, the metropolitan urban limits and a land monitoring system) are focus areas that need to occur to support the first two. This is largely because Wellington has lowish levels of projected growth and it will not be easy focusing growth within higher density areas on the public transit system while other land use opportunities exist in abundance. If infill housing and incremental urban expansion are allowed to continue they will erode the ability of growth centres to attract growth. If this occurs the success of the growth centres will be reduced any public investment in the growth areas will take on a greater level of risk. There are of course other reasons for these focus areas and these will be touched on in the individual focus area chapters.

The last focus area on urban design and urban icons while less related to the other five as a whole is particularly related to the second focus area on the CBD fringe redevelopment and provision for a rapid transit system. Apart from providing an excellent transport service to Wellingtonians and assisting in leveraging high density growth from the CBD fringe and out towards the airport, a transit system like a light rail system designed appropriately would make a real statement about Wellington, how it functions as a city, and would be an attraction in its own right.

Each focus area is first discussed in general. A list of the economic growth benefits is then provided along with a table which shows how the focus areas meet the Wellington Regional Strategy Issues. In addition, the main risks and of difficulties with the focus area are stipulated and finally a list of examples where the focus area has been applied national or internationally are touched on.

Wellington is unique as a city in New Zealand. It is the most urban city in New Zealand, it is also arguably the most concerned with urban design outcomes, and it creates a lifestyle that while complementing its natural surroundings, is not dependant on the natural environment. All the focus areas add to this perception of Wellington as what might be termed "the smallest big city in the world". They achieve this in a positive manner and in a manner which will have direct and indirect economic growth benefits. The focus areas chosen would take this perception of Wellington to the next level and assist in marketing Wellington within the Australasian context and beyond.

It is the belief of this report that unless the urban form of Wellington is developed soundly (sustainably, efficiently and effectively) that other more economic focused activities will have less net benefit to the region because of the additional costs associated with accommodating them e.g. roading and other infrastructure.

2. Supporting the CBD with key multi functional Sub Regional Centres (Focus Area 1)

2.1 Discussion

Wellington as a region is very much dependant on the CBD. The majority of employment within Wellington is in the CBD. The main educational and health institutions are in the CBD. The main tourist destinations are in the CBD. The main entertainment destinations are in the CBD. Many of these functions are the role of the CBD and should remain that way. However, for transportation, business opportunity, cost and urban remodelling reasons the sub-regional centres of Wellington also need to grow. This is not just to support local business and residents but also to make Wellington a multiple destination city and provide business with added opportunities (in different cost brackets) throughout the region.

Wellington has three potential sub-regional centres which should be more multi-functional, or mixed use in nature and which can be serviced economically with rapid transit. These are Porirua, Hutt City Centre and Paraparaumu. The first two are clear choices in Wellington. Their size, function, existing infrastructure and their location enable them to stand out. It may be argued that there are other existing centres that are larger and more important than Paraparaumu within the Region. However, given recent trends, projected demographic information and transport issues, the Kapaiti coast will grow relatively quickly and some level of consolidation and service and other business opportunities should be provided for this growing population.

Wellingtons linear or corridor nature lends itself very well to sub regional transit oriented development. The key infrastructure is in place and a very large proportion of the population is able to be served by the rail corridors. By the same nature Wellington lends itself poorly to private vehicle orientated development because of the congestion points which eventuate, the long travel distances and the costs of avoiding or mitigating those costs.

However, some key social and economic areas of Wellington are not well linked and the scale and type of development at the main stops on the rapid transit system are poorly orientated to transit development. This is exemplified by the fact that one of the key sub-regional centres, Hutt City centre, is not directly linked to the rail line.

Wellington needs to upgrade its rail system which will be a costly investment. However, this investment is unlikely to be more costly than following a road oriented approach of increasing roading capacity throughout the region. Any rail upgrade should be closely linked to the redevelopment and better orientation of some key centres to the rail network.

There are of course other aspects of this that need to be included in a package of possible actions including parking restrictions and improved walking and cycling permeability.

2.2 General Benefits

Sub regional centres are a particularly valuable resource economically because after the CBD they are the most flexible areas for redevelopment in the city. This is because:

- They generally contain zoning which is permissible to the widest range of activities
- Most infrastructure is in place within the centres – both physical infrastructure such as roads and stormwater, and community infrastructure such as health care, libraries and community centres.
- There is less resistance to redevelopment within these centres than in other areas
- The property ownership patterns and sizes are flexible enough to consider most developments
- Generally there are no adverse environmental effects and in many cases any current environmental effects can be remedied through redevelopment.
- They are in general underdeveloped i.e. they are an under-utilised resource.
- They are on or very close to at least one mode of public transport, including potential rapid transit.

In addition, there are also number of notable town centres on the rail system which the region could also look to develop in a more multi-functional manner e.g. Upper Hutt, Johnsonville, Tawa and Waikanae. This focus area does not ignore these centres as opportunities but rather focuses on the sub-regional centres because this is where greater gains can be made. Be aware that it is possible to spread investment and growth too thinly throughout centres when growth pressure is not strong.

While it is ideal that all the centres contain a mixture of uses it is not imperative that they all contain a full mix of activities. Some centres may be better suited as a retail centre, others primarily community serviced based, while others may develop a more intensive business park function. What is important is that these different centres are closely linked so that required trips are not more than a few stops apart.

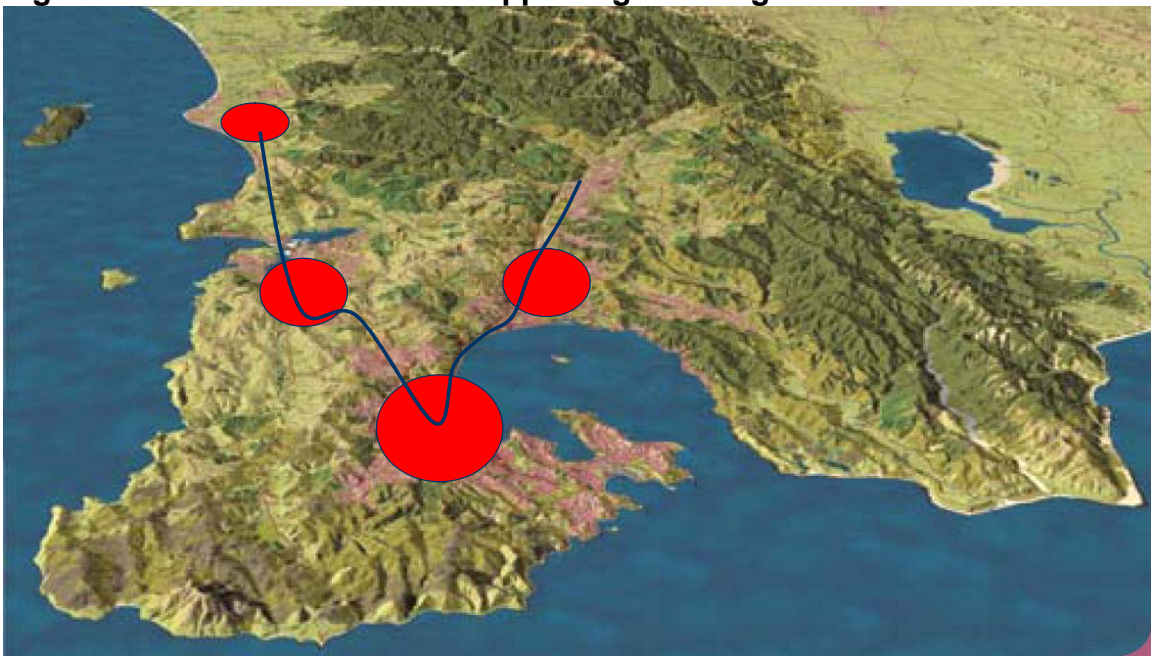
The development of higher density more mixed use centres can have the following general benefits:

- They create additional residential and commercial capacity while energising centres and their investment
- Provide better support to transit improvements by providing a larger and closer catchment of residents and employees. If Wellington is going to invest in an upgraded rail system it should be looking to support this investment as much as possible
- They reduce the proportion of longer distance vehicle trips - freeing up valuable motorway capacity for commercial vehicles
- They reduce growth pressures on the metropolitan fringe

- They provide opportunities and investment for renewing car based and tired retail centres
- They provide other destinations for Wellingtonians and tourists who may well get bored with the CBD. This could generate additional spending throughout the region
- They increase walking and cycling opportunities within those centres and for those communities
- They maximise the use of areas which have substantial infrastructure investment including high capacity drainage and railway stations. This in itself is a economic benefit as it reduces the costs for investment in infrastructure in new greenfield areas or areas where infrastructure improvement is likely to cost more per investment dollar, capita or employee.

The following map illustrates the links and geographic spread of the CBD with 3 supporting sub regional centre.

Figure 1. The CBD and Three Supporting Sub Regional Centres



2.3 The Economic Growth Benefits

The following list is of the more specific economic growth benefits which are generated from this focus area.

- Reduced household expenses (especially transportation)
- Additional locational choice and price options for new business
- Development attracting business which might not other wise be able to set up in central Wellington
- Creating more liveable centres which will make them more attractive to business

- Reduced infrastructure costs to the region (compared to urban expansion)
- Improved economic support for rail upgrades (patronage)
- Enables a higher proportion of commercial trips on the roading network
- Better match of housing demand with housing choice

2.4 Regional Issues Addressed

The following table shows which regional issues are addressed by this focus area and how. The issues relate to those in Appendix two of the Wellington Regional Strategy - Draft Outcomes and Issues Report (21 April 2005). A number of the economic benefits from redeveloping sub regional centres will indirectly rather than directly address some industries. Those issues addressed directly have been highlighted (in bold).

No.	Issue	How the focus area addresses the issue.
1	Failure to progress collaboration....	Will assist in spreading growth and assists in helping the metropolitan area operate seamlessly by creating a better hierarchy of centres and assisting in supporting improvements to the transport network.
2	Ability to sustain good relative and actual regional economic performance....	Creates a more robust structure of centres in which to undertake business and reduces the dependence on the CBD
3	Relatively low labour force productivity	Creates more business opportunities closer to the growing labour force e.g. Kapiti Coast and reduces the over all time spent commuting.
4	Major loss of population between ages 25-35 and in retirement	Assists in creating more job opportunities closer to these age groups especially those in retirement in the Kapiti Coast.
5	Structural change to the economy – issue of long term adaptability	Assists in creating further opportunities in others centres than just the CBD - creates opportunities for retraining and working closer to home for many residents.
6	The limited supply of suitable industrial land	Provides a focus for business activities that are not dependant on industrial land but locate there due to cost and opportunity. Once this opportunity is created then certain industries are able to relocate into centres freeing up opportunities for those business that are dependant on industrial zoned land.
8	Good Transport Modal Split	Provides land use intensification which directly supports investment in any rail rapid transit. Creates more compact development which will encourage more cycling and walking mode trips.
9	Rising traffic congestion on key transport routes	More local jobs will reduce the increase in traffic congestion to the CBD as will more compact development which will encourage rail over vehicle trips.
12	Perceived failure of local tertiary education / research sector	Provides opportunities for this sector to establish itself in centres with improved business, employee and student access.
14	Maintaining and enhancing overall environmental quality....	Reduces the amount of urban sprawl by accommodating growth in centres and provides opportunities through urban redevelopment to remedy environmental issues (like stormwater runoff) originating in centres. Because of the improved modal split, reduced vehicle emissions to air and ground result .
14	More efficient utilisation of the regions recreational infrastructure	Recreational facilities in sub regional centres will be better utilised.
15	Overall Population level and sub regional variation in population growth	Will provide further opportunities (attractants) for population growth in Hutt City, Porirua and Paraparaumu and will align housing supply better with housing demand. Whereas now those not wanting a house and a section are likely to relocate to the CBD and fringe.
16	The unplanned and	Coordinates growth within sub regional centres . In

	uncoordinated growth within and on the edge of the metropolitan area...	conjunction with reduced infill and the introduction of metropolitan urban limits (MULs), less growth and associated costs is generated from uncoordinated growth.
17	Very poor understanding of energy	More intensive development has been shown to use less energy than single dwelling units (materials, heating, home emissions) and promotes the use of more energy efficient modes i.e. public transport, walking and cycling.
19	Frequency and intensity of major storms and increased groundwater levels...	Through higher density redevelopment in sub regional centres stormwater runoff is able to be better managed (e.g. stormwater detention tanks). In conjunction with reduced infill and MULs less stormwater will be generated from existing and new suburbs which will alleviate flooding issues and reduce costly infrastructure provision and upgrades.
20	Sustainable water use, water supply systems	Water use per capita has been shown to be less in higher density developments. Also it is likely that sub regional centres have water supply infrastructure than can cater for further growth. It is more efficient to utilise this capacity than to provide further capacity at a low density of growth.
22	The sense of urban vitality and fizz....	The sub regional centres of Wellington would become more liveable with more residents, businesses and visitors.
23	Potential negative impact of unplanned growth on urban character and natural environmental amenity	Coordinates growth within sub regional centres . In conjunction with the introduction of metropolitan urban limits (MULs), less un-planned peripheral growth occurs, protecting the natural environment from urban activities.
24	Significant growth in Maori, Pacific Island and other ethnic groups and older populations	For the older populations it improves housing, work, social infrastructure and transportation options in the sub regions.

2.5 Risks and Difficulties

The following risks and difficulties apply to this focus area:

- The sub regional centres may not develop a threshold of growth quickly enough to pay back investment
- Need to convince retail mall and other business owners of the benefits
- Will be local reaction if it involves intensifying resident land or allows higher densities close to residential boundaries
- Finding adequate public sector funding for centre improvements can be difficult
- Easier to get transit related growth than transit orientated growth e.g. may be difficult to reduce parking requirements etc.
- Needs to be aligned with positive land market potential, if not aligned there is the risk of market backlash.
- The rail link from Paraparaumu and Porirua to Hutt City is poor – involving a transfer at the CBD. Over coming this will add additional cost.

2.6 Other Cities this focus area has been used successfully

- Promoted by Peter Calthorp and Robert Cervero in the US – Implemented in numerous cities in North America like Vancouver and Portland where it forms the basis of their growth strategies.
- Forms the basis of the Auckland Regional Growth Strategy 1999 and centres such as Albany, Newmarket and Manukau City are good examples of where this concept is been applied. It is still early days but the benefits of centralising growth rather than dispersing it are well founded in Auckland.

3. Redeveloping the CBD Fringe via Transit Orientated Development (Focus Area 2)

3.1 Discussion

Like most cities the CBD in Wellington contains an urban fringe area which is undergoing transition. This land is close to the CBD and therefore valued because of its location and because the current zoning is fairly permissive. Over time these area will completely redevelop but unless this is planned and visioned carefully the market will do this incrementally and opportunities for comprehensive, high density and transit orientated developments are likely to be lost.

There are three related components to this Focus area:

- 1) Developing a Rapid Transit (e.g. light rail) connection from the rail station to the airport
- 2) Providing an employment anchor and the airport
- 3) Creating transit orientated developments (TOD) at a few locations along the route notably in the CBD fringe.

Wellington has a finite amount of flat inner city land resource. The harbour to the West and the hills and Mt Victoria to the east and south define the inner city. This land also has tremendous potential and is in the throes of being redeveloped. However, the regions rail system does not penetrate any of this area. The rail station also falls short of most of the CBD. For this reason car based activities are the likely activities the market will look to develop in the CBD fringe. There are three consequences associated with this:

- A relatively low level of redevelopment will occur which will not provide capacity for 50 years of growth should Wellington continue to grow economically. This lower level of redevelopment will compromise the ability to achieve other developments on those sites for an undetermined number of years.
- Car based developments will only add to the current traffic congestion issues Wellington is experiencing. Many of the visitors and employees for these inner city parts of Wellington will originate from other parts of the Wellington region and because rail does not reach these areas the private vehicle is likely to be the mode of choice.
- Opportunities to develop and market any of these areas for innovative business activity are likely to be lost to short term returns e.g. bulk retail, because the market will have no incentive to wait for a higher land use return.

- The opportunity to develop an affordable rapid transit mode to the airport may also be lost because the land use would not have developed to support it

TODs developed via a comprehensive structure planning type exercise will be harder to achieve than a market led planning approach and may initially cost more than the current form of redevelopment being undertaken in the CBD fringe. However, it will achieve three main outcomes which would benefit Wellington directly:

- It will create greater inner city density which will not only provide more sustainable capacity but will maintain Wellington's urban feel. If the transit mode is chosen carefully it will assist in providing marketing for those areas and Wellington as a whole.
- Cements the inner city as a attractive lively place in which to live and work and as hubs of intellectual and creative behaviour.
- The higher density development could, in the longer term, pay for the initial transit investment making trips to the airport more affordable, more reliable and faster during the peak hours. This is one area where the regions local authorities can effectively influence economic behaviour.
- It will reduce the rate that road congestion in the region increase by thereby providing economic benefit for the movement of goods and services.

3.2 A Rapid Transit Link from the CBD through to the Airport

My own experience of arriving in Wellington is one of plane loads of business people arriving in Wellington at the same sort of times and a fleet of 100 taxis waiting to deliver them independently to the same or similar destinations in the CBD. Apart from the fact that this is uneconomic in the longer term and can only have adverse environmental effects, it puts a lot of pressure on the roading system at particular times and may lead to expensive and unsustainable roading improvements being required in the near future. At this current time Wellington appears to be unclear about whether it really is (or wants to be) a transit orientated city or not. In comparison to Auckland it is, but it is not in comparison to many of the cities it is benchmarking itself against.

While there are issues with regards to the freight capacity of Wellington airport Wellington is fortunate in that it does have an international airport within 7 km of the CBD. This lends itself to being able to serve residents and visitors with a fast, frequent rapid transit system, and at a reasonable cost (because of its shortish length) which can link some key areas in a short distance and which seamlessly transitions with the central railway station and therefore to other destinations with the region by public transport. This system is then able to repay itself by avoiding costly roading upgrades to the airport and by joining some key centres or points along its corridor to the CBD and beyond to other areas the region may want to redevelop in a sustainable manner that can deliver improved economic returns.

There are a number of forms of transit which could be used on this route. Potentially heavy rail could be extended although this would not be easy or beneficial from an urban design point of view as it would be difficult to penetrate the CBD and costly to tunnel under.

A rapid bus system is another option but it may not leverage as much development and it may not be innovative or acceptable enough to capture those trips that would otherwise be made by car or taxi. A bus system like that that currently exists in Wellington will not be the marketing tool that Wellington requires to attract and business and attract and retain employees.

Light rail is another option which while costly will add value to the city, will be able to leverage higher density employment and residential development and potentially could be an important urban and economic icon for Wellington and one of its key marketing tools (see Focus Area 6 Urban Design as a Marketing tool). This type of transport system has been proposed for Wellington over the years. It is time in this strategy process to reconsider this option, but to reconsider it with a greater emphasis on the ability for such a system to leverage additional land use capacity along with the marketing potential of such a scheme for bringing about economic growth and not simply from a CBD to airport accessibility consideration.

The following diagram illustrates how the rapid transit link provides a seamless link from the Hutt Valley and the north to the airport. It also shows where opportunities could be created to leverage additional development.

Figure 2. Proposed Rapid Transit Route Showing Indicative TOD Locations



3.3 The Economic Growth Benefits

- A cost effective way of providing improved public transport through the CBD and to the airport
- Enhances the modern urban image of Wellington – for business growth marketing

- Provides several additional business location choices (commercial, tourist, entertainment) well linked to the CBD and the airport
- Can reduce transport and parking costs to business and residents
- Provides a high capacity transit link to the CBD from the south (adding value)
- Potentially reduces pressure on the motorway system and any roading upgrade costs
- Provides a better match of housing demand with housing choice
- Supports any improvements made to the heavy rail system by providing additional patronage
- Has time saving costs for residents and business people travelling during peak time

3.4 Regional Issues Addressed

The following table shows which regional issues are addressed by this focus area and how. Those issues addressed directly have been highlighted.

No.	Issue	How the focus area addresses the issue.
1	Failure to progress collaboration....	Will assist in creating a seamless public transport link from all parts of the region to the airport which will also assist in supporting improvements to the public transport network as a whole.
2	Ability to sustain good relative and actual regional economic performance....	Is of benefit to the whole region and can reduce transport costs by reducing the reliance on the motor vehicle especially for trips to the south of the CBD and the airport.
3	Relatively low labour force productivity	Increases innovation in the city fringe areas and potentially could reduce some business cost compliance e.g. parking costs.
4	Major loss of population between ages 25-35 and in retirement	Assists in creating an even more vibrant city which may convince some within the 25-35 age group not to leave. If they do leave it could assist in enticing them back (the vibrant city effect)
5	Structural change to the economy – issue of long term adaptability	Assists in creating further opportunities for business notably innovative business they may not want a CBD location
6	The limited supply of suitable industrial land	Provides an additional focus for business activities that are not dependant on industrial land but locate there due to cost and opportunity. Once this opportunity is created then certain industries are able to relocate into centres freeing up opportunities for those business that are dependant on industrial land.
8	Good Transport Modal Split	Provides land use intensification which directly supports investment in any rapid transit. Creates more compact development which will encourage more cycling and walking mode trips. Reduces the proportion of vehicle trips to the CBD fringe and the airport.
9	Rising traffic congestion on key transport routes	Better public transport will reduce the increase in traffic congestion to the CBD, the CBD fringe and the airport as will more compact development which will encourage public transport trips and a greater amount of walk and cycle trips.
10	The international linkages, capacity and accessibility of the port and airport	Provides improved accessibility to the airport from all parts of the region but in particular from the CBD. Also links the airport more directly with heavy rail and potentially links the airport to the inter island ferry terminal.
11	Good levels of entrepreneurship, but businesses have poor international connections...	Creates opportunities to market business locations to specific industries such as IT or film production.
14	Maintaining and enhancing overall environmental quality....	Reduces the amount of urban sprawl by accommodating growth in the city fringe and provides opportunities through urban redevelopment to remedy environmental issues (like stormwater runoff). Because of the improved modal split there is a reduction of vehicle emissions to air and ground.
16	The unplanned and	Coordinates growth within city fringe locations . In conjunction with

	uncoordinated growth within and on the edge of the metropolitan area...	sub regional centre growth, reduced infill and the introduction of metropolitan urban limits (MULs), less growth and associated costs is generated from uncoordinated growth.
17	Very poor understanding of energy	More intensive development has been shown to use less energy than single dwelling units or low density business development (materials, heating, home emissions) and promotes the use of more energy efficient modes i.e. public transport, walking and cycling.
21	Ability to fund necessary infrastructure	If undertaken correctly (with redevelopment levies etc) potentially this can deliver a 21 st century rapid transit system at an affordable price to the region. The costs of providing improved vehicle mode capacity to the airport (as an alternative) also need to be considered here as the alternative will be equally as costly.
21	Wellington's image to the rest of New Zealand (and the key populations in other countries it is linked to)...	Creates the image of Wellington not only being the most modern, efficient and sustainable urban city in New Zealand but potentially in Australasia as well.
22	The sense of urban vitality and fizz....	The whole of the CBD fringe and the CBD itself would feel more urban and vibrant and it would assist in drawing more residents, businesses and visitors to Wellington.
23	Potential negative impact of unplanned growth on urban character and natural environmental amenity	Coordinates growth within sub regional centres . In conjunction with sub regional centre growth, reduced infill and the introduction of metropolitan urban limits (MULs), less un-planned peripheral growth occurs, protecting the natural environment from urban activities.

3.5 Risks and Difficulties

- A threshold of growth may not develop to quickly pay back investment
- May require a costly up front investment
- Will be direct competition to taxi and shuttle operators who may oppose the concept
- Sufficient public sector funding and resource may not be budgeted for the transit orientated improvements and any joint ventures that will be required
- Development does not always match the vision in the concept
- May effect ease of private vehicle accessibility within some streets of the CBD and the CBD fringe that will not please all residents and business.

3.6 Other Cities this focus area has been used successfully.

- **Docklands, London**
While there is no comparison in scale the Dockland project in London was based around a light rail system linking to the London Underground to assist in leveraging development as well as providing a public transport linkage to a large brownfield site in London.
- **Portland, Oregon**
Portland is well documented as a city that has improved liveability and economic attraction and much of the credit of this has been given to the investment in the light rail system and related development which it has leveraged.
- **Sydney - Ultimo Pyrmont (the 1990s concept)**
While there concerns in Sydney that this development did not go to plan (critics state a lack of mixed use and insufficient public open space) the concept for it was sound and the light rail has assisted in developing high densities in a manner that are transit supportive.

4. Reduced Infill Housing Provision (Focus Area 3)

4.1 Discussion

Infill housing as it is known in New Zealand, where houses are built on the front or back of existing sections or single residential sites are redeveloped, is not a common form of intensification around the world. New Zealand contains many pre 1980 suburbs which have site sizes ranging from 700 m² to 1200 m². In the 1980s there was a planning trend in New Zealand for providing these larger suburban sites with the ability to cross lease or subdivide. This was seen as a way of promoting urban consolidation – in an attempt to halt some of the spread of urban sprawl.

It is not clear from any WRS background reports to what extent infill housing is an issue in Wellington. The advice of this report is that this be ascertained. Infill housing capacity is an important part of assessing urban capacity with the region (see Focus Area 5). As an example, the Auckland Regional Growth Strategy Capacity for Growth study 2003 discovered that there was still capacity for between 34,000 and 76,000 additional dwellings through infill housing capacity and it is recognised that this is a serious issue for centre based intensification initiatives in Auckland. This is in addition to the thousands of infill dwellings which have already been undertaken in the past 15 to 20 years, as illustrated in the aerial picture to the right which shows just two site in this Epson street block which haven't been infilled.



In New Zealand infill is the quick fix, uncoordinated answer to a compact city goal. Why it is popular with land owners and does provide an easy option for urban consolidation this form of urban consolidation creates it own issues. These include:

- 1) Creating or exacerbating costly infrastructure upgrades – through overloading systems (water, sewage, roads) that were not planned for a doubling of density. This is largely because the planning rules are 'blanket' rules applied across numerous suburbs and it is difficult to predict or sequence up-take and therefore to plan or predict the need for infrastructure upgrades.
- 2) Affecting lifestyle options (reducing full section living options) and reducing suburban amenity.
- 3) Removing demand from initiatives (outlined in focus area 1) to concentrate residential activity around transport corridor and town centres.

- 4) Compromising the ability to achieve higher density around some town centres through fragmentation and over capitalisation of titles making them difficult to purchase for redevelopment.
- 5) In Wellingtons case, over supplying residential capacity when take-up is slow to medium may create a surplus of residential land which will make sequencing of infrastructure upgrades difficult.
- 6) Not providing sufficient urban densities which will adequately support rapid transit and is not linked to any increases in walking and cycling modes but does create localised traffic and parking issues and cumulative pressure on arterial roads and motorway infrastructure.
- 7) Placing pressure on social infrastructure notably schools.
- 8) Affecting suburban heritage
- 9) Creating more noise in the suburbs
- 10) Results in the removal of vegetation in suburbs (the un-greening of suburbs)

4.2 The Economic Growth Benefits of removing infill capacity

- Creates additional demand (by reducing supply) for development around town centres (Focus Area 1). Particularly important for Wellington if it wants to avoid over supplying urban housing capacity.
- Reduces and/or focuses infrastructure upgrade costs (roading, stormwater, schools) and removes the need to duplicate infrastructure provision (both in existing areas and new or redeveloping areas)
- Maintains an attractive lifestyle choice in Wellington.
- Reduces pressure on key arterial and motorway networks
- Maintains an option for comprehensive future urban capacity.

4.3 Regional Issues Addressed

The following table shows which regional issues are addressed by this focus area and how. Those issues addressed directly have been highlighted.

No.	Issue	How the focus area addresses the issue.
8	Good Transport Modal Split	Infill housing in some areas may increase bus or train patronage but is more likely to result in more car based trips from those areas. Removing infill housing as part of the package of intensifying around sub regional centres will result in an increase in public transport, walking and cycle mode splits.
9	Rising traffic congestion on key transport routes	Related to 8. Above, reducing infill and redirecting this growth into centres will reduce the rate of congestion increase on key transport routes.
14	Maintaining and enhancing overall environmental quality....	Reduces the amount of untreated stormwater runoff. Because of the improved modal split there is a reduction of vehicle emissions to air and ground. Reduces the adverse impact on heritage suburbs (if they are not already protected). Reduces the rate of vegetation loss in suburbs.
17	Very poor understanding of energy	Supports the uptake of more intensive housing forms which have been shown to use less energy than single dwelling (materials, heating, home emissions) and promotes the use of more energy efficient modes i.e. public transport, walking and cycling.
19	Frequency and intensity of major storms....	Reducing the amount of infill housing that can take place reduces the over all permeable surface of the metropolitan area which may be having down stream effects. If infill housing capacity is redirected into centres which are already largely impermeable, and urban expansion is managed, there the result should be a negligible net

		gain in permeable surface in the region in the future.
21	Ability to fund necessary infrastructure	Makes it easier to program infrastructure improvements and supports the intensification of centres where infrastructure can be used more sustainably and costs can be better recovered.
21	Wellington's image to the rest of New Zealand (and the key populations in other countries it is linked to)...	Wellington may be one of the few larger cities in New Zealand where it is possible to purchase a full site. Supports the image of Wellington providing a good range of lifestyle options.
24	Potential negative impact of unplanned growth on urban character and natural environmental amenity	Assists in coordinating growth within sub regional centres . In conjunction with sub regional centre growth, and the introduction of metropolitan urban limits (MULs), less un-planned residential growth occurs, assisting to maintain some of natural elements (vegetation) within some urban areas.

4.4 Risks and difficulties

- Removes a private property right given to land owners (there may be many legal compensation cases)
- Removes an easy consolidation option
- Difficult (but not impossible) to implement politically

4.5 Other Cities this focus area has been used successfully

- **Vancouver City, Vancouver.**

General infill housing is no longer permitted. A developer needs to amalgamate at least 6 standard before any redevelopment can take place and it can only take place in areas that can be effectively serviced by public transport

- **Auckland**

Infill housing provisions have been removed without compensation in some parts of Auckland where the community and/or the council has changed the density provisions to restrict infill development for heritage, amenity, or infrastructure reasons.

5. Introducing Metropolitan Urban Limits (Focus Area 4)

5.1 Discussion

Another tool for managing urban capacity is the use of Metropolitan Urban Limits (MUL) as used in cities like Auckland and Portland, Oregon.

An MUL is a planning tool (In New Zealand it would be shown in a Regional Policy Statement - because of its metropolitan coverage) which sets in a hard and fast manner the extent of urban development for a metropolitan area. Auckland has used a MUL for more than 20 years, for largely environmental purposes. It is possible to move an MUL and normally this is reviewed at a regional level when it is apparent that growth is not manageable within the MUL and when environmental, transport and other indicators show that the adverse effects of moving the MUL are able to be mitigated when the benefits to the region of moving the line outweighs the adverse effects.

As a Focus Area for Wellington the introduction of an MUL is a necessary part of the package of tools required to meet the objective of Focus Area 1 (sub regional centre development) i.e. its primary role is in assisting with the regulation of urban capacity. What this means is that the limit is set to assist in ensuring that urban growth is managed where it will meet other regional goals such as supporting rail improvements and creating vital and growing sub regional centres. It is unclear in this study whether urban zoning by itself in Wellington is effective at this or not and whether urban zoning at the fringe of Wellington is regularly expanded in an incremental fashion.

From a planning point of view another advantage of an MUL (as part of a Regional Policy Statement) is that only local authorities and central government can propose a change to a Regional Policy Statement to move an which means that it is easier to manage non-complying applications for urban expansions.

If an MUL is introduced then it is essential that Focus Area 5 (An urban land monitoring system) is introduced. This way the remaining greenfield capacity along with the pressure on the MUL will always be known and understood.

The other important role of the MUL would be to ensure that the environmental values that make Wellington unique and attractive are not unnecessarily eroded and that incremental expansion does not have a cumulative negative impact on the arterial road and motorway system – which Wellington would be particularly susceptible to from incremental urban expansion. Urban expansion at the fringe is often the most difficult to manage from a transport point of view. If the urban expansion is not based on an existing or planned transport service with appropriate densities then urban expansion will lead to more private vehicle based trips which will in most cases be long trips and which will put further pressure on the regional roading network.

5.2 The General Benefits of an MUL

- A fixed (for a number of years) line which defines the extent of urban development in the region giving certainty to infrastructure providers.
- Reduces metropolitan fringe suburban speculation
- Used to assist in regulating urban capacity (Focus Area1)
- Also designed to protect the natural environment from incremental development
- Designed to protect the roading network from negative impacts from low density peripheral growth

5.3 The Economic Growth Benefits

- Managing urban growth into areas where it will provide the most benefit (Focus Area 1)
- Protecting the environmental and lifestyle elements which background reports suggest require preserving
- Assists in protecting the roading system and business dependant on it from added long distance non-commercial vehicle trips
- Creates efficiencies for infrastructure providers.

5.4 Regional Issues Addressed

The following table shows which regional issues are addressed by this focus area and how. Those issues addressed directly have been highlighted.

No.	Issue	How the focus area addresses the issue.
1	Failure to progress collaboration....	Urban expansion in any part of the region will have regional impacts. MULs are a method for recognising this and sharing the responsibility for the costs associated with uncoordinated urban expansion
8	Good Transport Modal Split	Supports land use intensification by creating certainty and reducing capacity on the urban fringe which directly supports investment in any rail rapid transit. Reduces the increased in car dependent development.
9	Rising traffic congestion on key transport routes	Reduces urban development which is car dependant and which has a cumulative negative effect on regionally significant roading infrastructure and congestion which causes delay and a cost to business
10	The international linkages, capacity and accessibility of the port and airport	Related to (9) above, additional pressure placed on the regional roading network will have an impact on accessibility to the port and airport for commercial traffic in the region. MULs will assist in managing the growth of non-commercial private vehicle dependent trips.
14	Maintaining and enhancing overall environmental quality....	Reduces the amount of urban sprawl limiting its peripheral expansion, preserving important environmental areas which may not be protected under current zoning regulations.
15	Overall Population level and sub regional variation in population growth	Enables the management of growth at the regional level to ensure that some areas do not grow at the expense of others or at the cost to others. Enables growth to be focused into areas where it provides the greatest regional benefit
16	The unplanned and uncoordinated growth within and on the edge of the metropolitan area...	Manages urban expansion at the regional level and avoids incidents of unplanned growth on the urban fringe from occurring.
17	Very poor understanding of	As a tool in consolidating the metropolitan area it assists in reducing

	energy	per capita energy costs particularly transport energy costs.
19	Frequency and intensity of major storms and increased groundwater levels...	Through reduced incremental urban expansion (especially in areas which have a down stream effect) better stormwater management is possible. In conjunction with reduced infill and sub regional intensification less stormwater will be generated from existing and new suburbs which will alleviate flooding issues and reduce costly infrastructure provision and upgrades.
20	Sustainable water use, water supply systems	MULs assist in managing the provision of water supply to more fringe areas.
22	The sense of urban vitality and fizz....	Assists in managing growth into sub regional centres of Wellington. Urban vitality is difficult to develop in suburban fringe locations.
23	Potential negative impact of unplanned growth on urban character and natural environmental amenity	Coordinates growth at the urban fringe resulting in less unplanned peripheral growth which protects the natural environment from urban activities.

5.5 Risks and difficulties

- The limit will need to be located carefully – i.e. on a defensible basis.
- The MUL may end up being used as a sequencing tool (where it is moved regularly) rather than a growth boundary – as in Auckland now. This tends to erode its integrity and its primary purpose of managing growth over the longer term.
- If not monitored carefully it could constrain growth and result in imbalanced housing choice and cost

5.6 Other cities this focus area has been used successfully

- Portland, Oregon
- Auckland

The metropolitan limits in Auckland have been accepted by the Environment Court as a legitimate growth management tool.

5. An Urban Land Monitoring System (Focus Area 5)

5.1 Discussion

From an urban planning point of view what becomes critical when investing in either expanded development or a 'smart growth' or urban containment based approach is to have good information on urban capacity and take-up i.e. understanding when opportunities have been provided for the market and monitoring where how well or not they are been taken up.

The following show why a good urban land monitoring system is important for the Wellington Region:

- It is essential that local government assess and continue to monitor the state of the urban environment
- It is important to know what potential or shortfall exists in any one place and any one time to understand and react positively to land market forces
- Difficult to set new land use policy without good land use information

The information from such a system is very useful for not only local authorities but also land developers, potential new businesses and finance institutions.

The system can also provide robust land use information into transport models and assist in marketing particular areas of vacant or "brownfield" site opportunities to the market. This type of system also assists the councils of the region meet Section 35 requirements of the Resource Management Act.

This focus area is based on the development of an urban monitoring system that can, for example, do the following on an ongoing basis:

- Assess and monitor the amount of vacant land that is developable in the Region along with its expected capacity. This includes business land, and should be based on current district plan rules.
- Assess and monitor the amount of infill housing capacity that exists in the region based on current district plan rules
- Assess and monitor the amount of redevelopment that is likely from current district plan rules with specific focus on town centres and any mixed use areas
- Monitoring urban development on a regional level on an ongoing basis using information such as building consent data
- Provide reports to the public and any potential local or international clients showing where development opportunities are available in the region.

Urban intensification is always going to be harder to achieve than urban expansion. If a consolidated approach to urban growth is adopted as part of the Wellington Regional Strategy the desire will be to meet the growth expectations from this growth direction. However, the market will naturally take up the easier development options first (the low hanging fruit). Vacant zoned land and infill housing are, in the experience of Auckland, the easier option. This is because there is little lag time, the costs are lower and the market is familiar with it. An

assessment and monitoring of these types of activities will allow decision makers to know at a glance whether or not this policy approach is working or not.

5.2 The Economic Growth Benefits

- Enables efficient land use decision making
- Can assist in the sequencing of infrastructure provision
- Can assist with marketing vacant or redevelopment opportunities to the land market
- Provides consistent urban land data to Local Authorities, infrastructure providers and the land market
- Enables the region to be in a position to more effectively work with land markets.

5.3 Regional Issues Addressed

The following table shows which regional issues are addressed by this focus area and how. Those issues addressed directly have been highlighted.

No.	Issue	How the focus area addresses the issue.
1	Failure to progress collaboration....	Results in a high level of information sharing of robust data, which has not only cost benefits to each authority but provides a regional perspective for all information provided. Can reduce any litigation costs when different data sources are argued against each other.
5	Structural change to the economy - issue of long term adaptability...	Depending on the information gathered, this system can closely follows changes in the market e.g. the number of industrial building consents issues and their location compared to the amount and location of office building consents
6	The limited supply of suitable industrial land is becoming a factor in business location	A monitoring system would first ascertain the degree of this issue and then be able to show at anyone time where any shortfalls were for the region enabling any policy responses to have a factual base.
15	Overall Population level and sub regional variation in population growth	Will be able to monitoring this on an ongoing basis once new policy has been set, along with household and employment variations.
19	Frequency and intensity of major storms and increased groundwater levels...	By understanding where and how much urban development is being undertaken (along with latent capacity) stormwater engineers would be able to model expected storm impacts. This will enable them to either inform planning policy to avoid a costly upgrade or prepare in advance stormwater system upgrades.
20	Sustainable water use, water supply systems	By understanding where and how much urban development is being undertaken (along with latent capacity) water resource engineers would be able to model expected water demand in particular areas and be able to assess the costs of this, which may help to inform planning policy.
23	Potential negative impact of unplanned growth on urban character and natural environmental amenity	By knowing where all development now exists, where all latent capacity exists and where development is beginning to take place or is most popular, it will be possible to assess the impact on fringe areas but also infill areas and areas undergoing redevelopment

5.4 Risks and difficulties

- Will take some resource and cooperation between local authorities to set up
- Some local authorities may feel they are losing control of some information

- Monitoring systems while not simple to initiate and often difficult to maintain due to things like staff turnover and budget cuts.

5.5 Other Cities this focus area has been used successfully

- **The State of Victoria, Australia**

The Infrastructure Department of the state of Victoria have a comprehensive land monitoring system operating for the Melbourne metropolitan area. This monitors land supply (vacant land, redevelopments opportunities etc) and land demand (population and employment growth). It also monitors and tracks the market response in the land market - tracking all significant developments from a “mooted” stage to consent granting to building completion. It uses this information as a tool for the land market as a way of stimulating continued economic growth in the land development market.

- **Vancouver, Canada**

The Greater Vancouver Regional District (GVRD) collates and publishes Regional Development Indicators, which is a brief summary of regional economic, development and transportation statistics. The data is supplied by GVRD municipalities, Canada Mortgage and Housing Corporation, Translink (the PT operators), Real Estate Board of Greater Vancouver, Fraser Valley Real Estate Board, and Statistics Canada.

- **Auckland**

The Auckland regional Council undertakes a vacant land, infill and redevelopment capacity assessment every five years for the metropolitan area and larger settlements of the region. It also monitors building consent activity for the metropolitan areas - for all building types including retailing, office development and residential. This is all undertaken on a Geographic Information System.

6. Urban Design and Urban Icons as a Marketing Tool

6.1 Discussion

When Wellington invited architects and designers to submit proposals for the Museum of New Zealand (Te Papa) in the 1990s they received interest and a joint proposal from Frank O. Gehry (arguably the world's most renown living architect) and Federick Hundertwasser (Hundertwasser is a world renown Austrian and New Zealand Architect and Artist).

Their design (based on a large spiral) was slightly more expensive than other proposal but apparently not New Zealand enough to be accepted, or so the story goes. Regardless of the reason, I doubt that at the time any criteria or weighting was given to the economic growth generating properties of the different proposals. If this had been a strong criteria the Hundertwasser/Gehry proposal would have won hands down. In not choosing this proposal Wellington may have inadvertently lost the most important social, cultural and economic opportunity it has had in recent times to make a global statement about what kind of city it was and wanted to be through urban design and urban icon development. This would in turn have generated tens or even hundreds of millions of dollars in revenue for the region.

Around this same time Frank Gehry designed The Guggenheim Museum (shown to the right) in the run down industrial city of Bilbao¹ in Spain. This sparked of a renaissance of business and design in the city and it found its niche and has grown very successfully since. Interestingly Bilbao shares many similarities with Wellington in size and topography and is now one of



the modern art capitols of Spain. The Guggenheim Foundation are now commissioned world wide to create such museum projects for economic as well as cultural reasons.

In terms of good contemporary urban design Wellington is the leading city in New Zealand – but it could do much better. Good urban design and urbanism in general (as opposed to sub-urbanism) is arguably Wellingtons key niche. It is already the most urban city in New Zealand and because of this it gives the impression of being bigger than it really is.

“The smallest big city in the world” is what it should strive to be. It should make big city statements through urban icons. Decisions on design in Wellington

¹ Bilbao has a population of approximately 1 million residents.

should (within reason) be a more important decision than cost. Wellington cannot afford to pinch pennies on design. All urban form decisions should have a goal of providing an improved urban design outcome – with the biggest projects striving to make iconic statements, be they new developments or redevelopments. This also applies to transport infrastructure and this focus area is closely linked to Focus Area 2 and the provision of a modern transit system from the rail station to the airport.



Wellington has a problem with the loss of skilled workers in the 25 to 35 age group. Many of these residents are taking the opportunity to work and travel in other parts of the world and there may be some things that can hold these individuals in Wellington. However, what is also important is to give them an incentive to come back - and very lively, well designed city with iconic developments is more likely to

do that than one without.

Apart from providing improved accessibility and acting as a leverage for urban development (which can provide opportunities for business growth), a modern well designed light rail system can send a very strong signal to the rest of the world that Wellington is a modern, assessable, environmentally friendly city that is not afraid to invest in the best. This could be what it needs to attract and convince the best companies and businesses in New Zealand, Australia and elsewhere to invest in Wellington. Wellington does not really have the option of being mediocre with design outcomes– the way Auckland does, because of its slowish growth.

Improved urban design and creating urban icons can be achieved by undertaking the following:

- Ensure that all urban development meets certain standards of urban design – to enhance the city
- Elevate urban design as a criteria in urban development decision making (consider the economic impacts of great designs versus cheaper designs) e.g. ensure that economic opportunities through tourism and leveraged urban development are considered in any future decision on rapid transit to the airport.
- Assist in developing iconic urban statements through urban design panels urban design guidelines and competitions etc

6.2 The Economic Growth Benefits

- Potentially the largest economic marketing tool the Wellington region has (puts Wellington “on the map”).
- Contributes to increased visitor numbers to the city

- Assists in maintaining and attracting new business and skilled residents
- Good urban design encourages good urban design, cumulatively adding to the city's "worth" (business also starts to demand it)
- Tourists and business (conferences) visit Wellington for this reason only reason – Urban vibrancy and design. This would place Wellington firmly on the Australasian conference circuit.

6.3 Issues Addressed

The following table shows which regional issues are addressed by this focus area and how. Those issues addressed directly have been highlighted

No.	Issue	How the focus area addresses the issue.
2	The ability to sustain good relative and actual regional economic performance	Good urban design breeds good urban design and with the creation of urban icons design will assist in sustaining economic growth.
8	Structural Change to the economy	Good urban design and urban icons can instigate a transition as the economy changes by creating or maintaining an attractiveness to the city as it did in Bilboa in Spain.
14	Maintaining and enhancing overall environmental quality....	Urban environmental quality in Wellington is high and good urban design and urban icons will raise this bar higher.
21	Wellington's image to the rest of New Zealand	Will be further enhanced improving tourism and relocation (as Auckland becomes relatively less liveable). Good urban design can overcome environmental shortfalls e.g. the climate
22	The sense of urban vitality and fizz	Good urban design is the key to this and urban icons can really add to this sensation

6.4 Risks and difficulties

- Will always cost a little more initially to get better design outcomes
- Matters of taste may override the desire to make a design statement - e.g. the Hundertwasser proposal may not have been to the judging panels taste or the perceived taste of the general populous
- Many urban icons are not loved initially e.g. the Eiffel Tower and there will always be a negative reaction from some parts of the community
- Requirements to improve design may scare of some developers.

6.5 Other Cities this focus area has been used successfully

- Bilboa and the Guggenheim Musuem
- Barcelona with Gaudi
- Sydney - Opera House and the Harbour Bridge
- Melbourne - Spencer Street Station, trams, Federation Square
- Portland and the light rail development
- Wellington and Civic Square

7. The 6th of May Focus Area Workshops

The focus areas presented by the consultants to the PEG group on the 6th of May were a very wide mix focusing mainly on the economic interventions for urban growth rather than urban form. The focus areas presented in this paper are all urban form related focus areas and all achievable by local government in Wellington. Not all the focus areas were discussed in detail at the workshop so it is difficult to assess proposals against each other. Nothing that was presented or stated at the workshop resulted in the need to review the proposed focus areas presented in this report. If anything the lack of other urban form focus areas would reinforce the importance of the urban form focus areas presented in this report.

While there was a large range of differing focus areas there were some common themes. Arguably the most common theme was the proposal to redevelopment and promote the sub regional centres in Wellington. Focus Area 1 in this report proposes the same.

8. Conclusions

This report proposes 6 focus areas for the Wellington Regional Growth Strategy team to consider. All of the focus areas are well practiced planning techniques in the planning world today. Many of them have their critics and some criticism may have some basis as many of the techniques are also very new and are still being learnt. For example, transit orientated development has not always been implemented as it was originally intended and for this reason some of the results from some cities have not been as good as expected. Development of a sound urban form is essential for sustaining economic growth benefits for the Wellington region.

Others focus areas however, such as creating urban icons, have had spectacular results in cities like Sydney and Bilboa and it is important that the Wellington region does consider the potential economic loss of decisions made in the past regarding urban form and design to ensure they are not made in the future. If Wellington is going to enhance the sense of urban vitality and ‘fizz’ the urban form must be developed to encourage this. Wellington cannot afford to be complacent when it comes to design.

Transport is a big issue from both an accessibility an economic point of view for the region the and the first two focus areas presented in this report have a very strong land use and transport integration theme. To improve transport outcomes in Wellington at a relative cost will require some land use change i.e. a further focusing of growth around transit stops, but the value of those transport investments will be significant to the regional economy.

Finally, one of the difficulties in undertaking this exercise was understanding how the region has been growing to date and getting a feeling for the urban dynamics of the region. Part of the reason for this, I suspect, is a lack of integrated regional urban data and understanding of land market dynamics. The simplest most cost effective focus area presented in this paper is the development of an urban land monitoring system for the Wellington region. With the information that this system produces more certainty can be placed on any policy decision making that comes from this process and future regional and territorial authority decision making. This information will also enable the region to understand and promote the urban land opportunities that exist in the region to encourage economic growth.