PROPERTY ECONOMICS

FUTURE PROOF ECONOMIC EVALUATION UPDATE

Future Proof
Knowing our future by planning today

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SCHEDULE

Code	Date	Information / Comments	Project Leader
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1. EXECUTIVE SUMMARY

The guiding economic principles on which Future Proof originated, namely Centres of Community, Resources and the Environment, Services and Facilities and Governance in relation to Rural, Business and Industrial Land Use, Residential Development and Settlement Patterns remain relevant as key guiding principles for today's environment as they did when the Future Proof Strategy was founded.

Deviation from the underlying economic principles within Future Proof of consolidation, efficient use of infrastructure and resources and improving productivity in the economy, particularly in respect of development and settlement patterns, as a result of decentralisation is likely to lead to significant economic risk and cost to the community, and the potential to stifle economic growth across the entire Future Proof sub-region.

However, while the integrated Future Proof approach (through its principles) to resource and infrastructure management is to be commended, the risk of 'oversupplying' the market still exists (even in the context of the National Policy Statement on Urban Development Capacity (NPS UDC) which could generate inefficiencies in land supply, markets and the competitiveness of Future Proof as a location to undertake business activity.

The Future Proof approach of consolidation and the NPD UDC focus on feasible supply requires a balancing between economic drivers of growth, provision of land (industrial, business and residential), and meeting statutory requirements to ensure a better understanding of not only the obvious potential costs to growth of undersupplying land for development but also the significant potential impacts of oversupplying land.

The Future Proof Strategy is only starting to '*bear its fruit*'. The Strategy needs to continue to be implemented and shape land use development, growth and settlement patterns over the next 20 years. The economic risks associated with moving toward a more dispersal growth approach (as previously and in effect represent a softening of Future Proof current economic principles) are considered significant and likely to result in significant lost economic opportunity and cost.

Ultimately, Future Proof's current economic foundation stones (its guiding principles) place the sub-region in a stronger position to create competitive business and residential environments, important to attracting the market opportunities available to Future Proof in the future.

2. INTRODUCTION

Property Economics has been engaged by Waikato Local Authority Shared Services Limited (WLASS) on behalf of Future Proof partners to undertake a high level review of the economic principles underpinning the Future Proof Strategy, and determine whether the Future Proof Growth Strategy and Implementation Plan 2009 remain relevant and justifiable in the context of the current environment.

The purpose of this assessment is to provide WLASS and the Future Proof Partners with some relevant economic rationale to assist in making more informed decisions regarding the principles for Future Proof moving forward to ensure the strategy and settlement patterns promoted remain an economically efficient pathway to deliver growth in the Future Proof area.

The need to accommodate the residential and business growth in appropriate locations is fundamental in developing a sustainable and competitive economic environment that provides for the community's economic well-being and social amenity.

A key component within an efficient economic environment is the recognition of business centres that provide for improved levels of business agglomeration benefits, infrastructure efficiencies and social value. While the development of these centres has historically been market lead and focussed, changes to market dynamics have meant that a significant degree of these benefits have been lost in the pursuit for individual gains.

2.1. KEY RESEARCH OBJECTIVES

The main objectives of this report are to:

(i) Identify some of the key trends occurring in the commercial (retail and office) and industrial sectors in response to changing global and NZ economic drivers, and how these trends may influence activity and location decision making practices in the market.

(ii) Outline economic benefits of agglomeration of business activities and infrastructure efficiencies in creating investment certainty.

(iii) Review the economic principles that underpinned the initial Future Proof Strategy (2009) and consider in the context of the National Policy Statement on Urban Growth Capacity directive.

(iv) Identify any changes in the strategic thinking for the Future Proof Strategy that would assist in the efficient development and accommodation of growth.

3. FUTURE PROOF FOUNDATION STONES

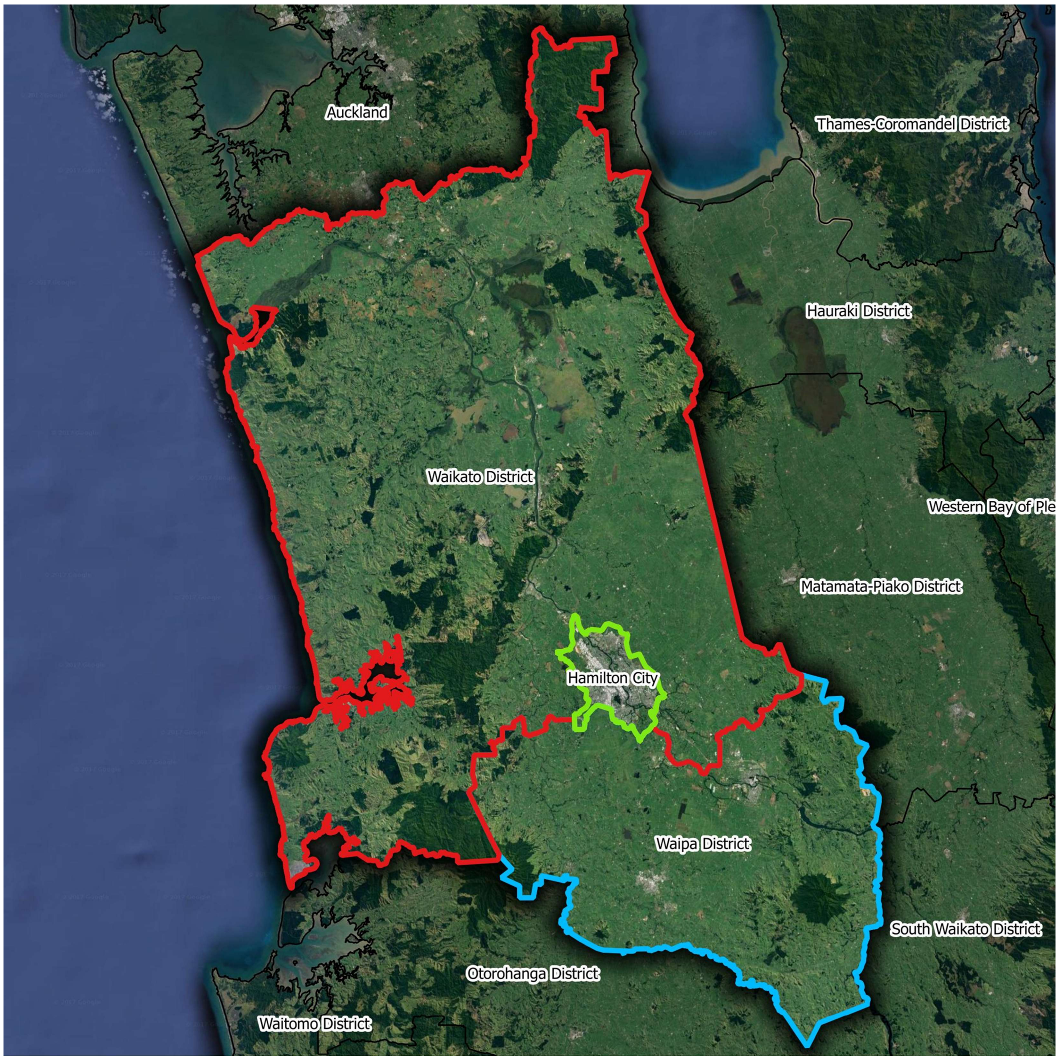
Future Proof is a growth strategy specific to the Hamilton, Waipa and Waikato sub-region. The Future Proof partners are Waikato Regional Council, Hamilton City Council, Waipa District Council, Waikato District Council, tangata whenua representatives and the New Zealand Transport Agency (NZTA). Launched in 2009 its focus was to deliver a more comprehensive and consistent approach to managing and facilitating growth across the wider sub-region.

In a nutshell, Future Proof is about planning for the future today by integrating the growth and management of land resources and infrastructure assets in an efficient manner that assimilates rural and urban land uses, transport, natural and cultural resources, and essential infrastructure to improve economic competitiveness, efficiencies and productivities of development, growth and investment to the mutual benefit of the Future Proof partner areas.

The strategy aims to achieve collaborative governance of growth and development in the sub region that provides a more certain pathway for those with a vested interest (Councils, communities, developers, investments, business owners and operators, consumers, residents, etc.) that signposts the future shape, form, and composition of settlement patterns and development people of the sub region want to head towards. The strategy compiles a framework for the ongoing co-operation and implementation of this '*future*' desired by the sub-region that guide the Future Proof partners. This is to ensure capital investment and resources required to finance and manage infrastructure development in particular are provided for in the most economically efficient, timely, appropriate and considered manner.

The geospatial extent of the area encompassed by the Future Proof Strategy is shown in Figure 1.

FIGURE 1: GEOSPATIAL EXTENT OF FUTURE PROOF SUB REGION



3.1. FUTURE PROOF STRATEGY OBJECTIVES

There are four main foci for the Future Proof Strategy:

Centres of Community

> *Emphasis on providing diverse and vibrant metropolitan centres linked to thriving towns and rural communities and place of choice - live, work, play, invest and visit.*

This is generally increases in con junction with consolidation of activity, rather than a dispersal approach which disseminates economic activity over a wider area.

Resources and the Environment

> *Protection of natural environments, landscapes and heritage and a healthy Waikato River as the heart of the region's identity, and sustainable resource use.*

The sustainable use of scarce resources is increasing in important as we move into the century. This remains a critical pillar of the RMA, and is increasingly relevant across a wider number of areas in the economy, i.e. water quality in rivers, streams, and lakes (which impacts farming practices), development of more sustainable an energy efficient buildings (often now attached with green-star ratings).

Services and Facilities

> *Affordable and sustainable infrastructure.*

Inefficient infrastructure development and use can lead to significant and unnecessary economic cost loadings onto the community. More efficient use of existing resources and investment makes servicing a community's need more affordable and economically efficient.

Governance

> *Effective governance, leadership, integration, implementation and productive partnerships*
>
> *Strong and collaborative partnerships with Tangata Whenua.*

Close working relationships with vested parties of the Future Proof sub region within a coordinated strategy / framework is important for consistent governance and decision making processes, which increases market certainties and confidence in the sub region, particularly in respect of investment and business decision making.

3.2. CORE LAND USE CONCEPTS

Business and Industrial Land

> *The provision of adequate business and industrial land is a key aspect of managing growth and growing the economy of the Future Proof sub-region.*

Development that undermines the regional commercial heart of the sub-region (Hamilton CBD) is discouraged. Business land is to be provided in the areas identified in the wider strategy document. These are identified due to their efficiency and appropriate geospatial distribution within the wider context of the sub-region. Encouragement of retail and commercial office activity into the existing centre network of the sub-region recognises the economic and social value of centres, the important function they play in the community, and the significant public (and private) sector investment in the existing network that needs to become more productive and efficiently utilised.

Industrial activities are generally made up of manufacturing, construction, transport and logistics, wholesale trade and utilities. These activities are focussed in suitable areas to avoid sensitivity issues and to maximise the use of existing and planned infrastructure, with locations that satisfy most of the key industrial sector location requirements, i.e. located to suit and guide business location decision making. Industrial areas are utilised for industrial purposes in order to maintain the effective and efficient use of land and associated infrastructure.

Residential Development

> *In general, residential development is focussed on areas where residential sites already exist / zoned. It will be more compact and new development will be located in defined and designated areas. Future Proof aims to reduce the spread of development by increasing residential densities*.

This increases consolidation and conversely the unnecessary and inefficient spread of the urban boundaries (or urban foot print) at significant economic cost in infrastructure.

Intensification is focused around existing towns and villages, the city heart, suburban centres, transport hubs and well serviced areas which are great places to live. This supports consolidation of activity and more efficient and effective use of existing zoned land and infrastructure resources. There are various intensification thresholds in place depending on the location, i.e. the Hamilton CBD has a higher level of residential intensification potential than greenfield areas and rural townships. This acknowledges commercial realities, is aligned with where most economic efficiency and economic benefits can be generated, and is practical from a market perspective.

Rural Land

Farming in the Future Proof region makes a significant contribution to the sub-region's (and wider regional) economy and Gross Domestic Product (GDP). It also contributes significantly to employment, both directly and indirectly, particularly through support services and businesses.

In general, urban and rural residential development are aimed to be directed away from high quality, unfragmented farmland and existing factory farms. This is to ensure good quality, highly productive and sustainable rural land is available for such uses moving forward.

Settlement Patterns

The settlement pattern in the Future Proof Strategy out to 2061 involves a significant increase in the number of households within a smaller land area. In essence future growth in the sub-region is to be accommodated in a more efficient manner is respect of land consumed, which by default drives a wider range of housing typologies, which be default provides a greater range of housing choices, options and price points. This is particularly relevant in the current market with residential supply issues, in Auckland in particular, driving home affordability concerns the Future Proof sub-region could assist solve (discussed in more detail later in this overview).

4. CHANGING MARKETS AND TRENDS

4.1. RETAIL / CENTRE MARKET TRENDS

At a higher level, the retail market is undergoing constant change in terms of how retail goods and services are delivered to consumers, resulting in changing retail formats as retailers try to better position themselves to attract the increasingly discerning shopper. This is leading to significant changes in the way consumers shop and crucially changes in the role and function of centres.

Major changes that have occurred over recent decades, and shaped the retail market into what it is today, include the development of shopping malls from around 1970 onwards and the establishment of LFR centres. Coinciding with this was the emergence of the 'fast food' market and petrol stations expanding their non-petrol offer to become 'mini dairies' to provide improved convenience for the increasing 'time precious' consumer.

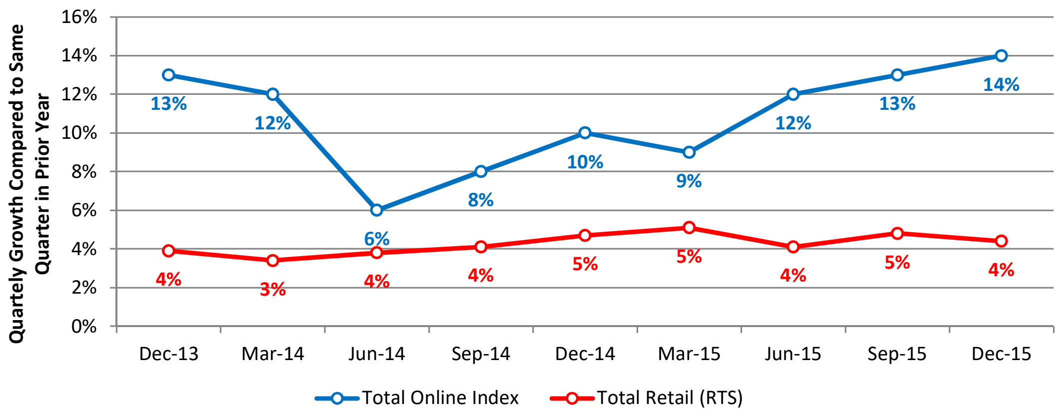
Emerging now is the growing influence of Internet retailing, which allows consumers to purchase previously inaccessible goods from stores not only outside their local catchment, but right around the world. All these changes have had, and will continue to have, cumulative and underlying influences on the more 'traditional' (town) centres in terms of the role they play in the community and the retail offer provided.

Internet retailing (sometimes referred to as E-tailing) is anticipated to be a major factor that will have an increasing influence on the future retail provision required and shopping patterns, and is now at a point where it should be factored into forward planning considerations. For the 12 months ending February 2016, New Zealanders spent $3.3 billion online (excl. GST), which accounted for 8% of New Zealand's total retail expenditure of $44 billion across the core retail sectors. Growth in domestic online spending in New Zealand is outpacing growth in spending at physical stores, with January 2016 growth up 11% on January last year. International retailers continue to gain market share of local retailers in New Zealand, with spending at offshore sites in January 2016 up 21% on January 2015.

Growing retail expenditure will account for an increasing proportion of total retail sales which will effectively reduce the amount of retail expenditure available for physical stores, which in effect would lower the need for on-the-ground retail activity in the future, which ultimately will slow the rate of retail growth in respect of provision required to meet the future market's needs.

Figure 2 illustrates growth of total online sales compared to growth of total retail sales by comparing quarterly growth to the same quarter in the previous year. This highlights the higher levels of growth that online sales are experiencing.

FIGURE 2: ONLINE RETAIL SALES VS TOTAL RETAIL SALES GROWTH



Source: Property Economics, BNZ Online Sales Index, MarketView

Historically, town centres were the heart of a community with a wide ranging retail offer and mix including supermarket, fashion, hardware, footwear, department stores, restaurants, community and recreational facilities, and localised commercial services. However, while the term 'town centre' has remained, the traditional meaning of it cannot be applied to many of the modern day centres that carry the title.

As a result of the trends identified above, town centres today in many smaller or low growth towns around the country have had their historic role reduced to primarily one focused on supplying convenience retail and commercial activities, civic and social functions for the immediate communities they serve. Shopping malls and LFR centres (either within the district or in neighbouring districts) have largely removed the 'higher order' comparison stores in centres where these trends have become entrenched such as local hardware stores, fashion, footwear stores, and department stores, which have been consolidated and absorbed by larger more centralised stores in retail centres attracting shoppers from far more extensive catchments.

This has been supported by improvements in the road networks, and better quality and cheaper cars (imported second hand cars from Asian countries primarily) making travelling quicker and easier, and allowing consumers more retail choice and the ability to travel further afield to undertake their retail shopping. This has also been driven by retailers' desire to reduce overhead costs and duplication of stores to improve competitiveness against increased competition, i.e. have one larger store that services a larger market rather than two or three separate smaller stores to service the same market.

The 'upshot' of the identified changes in the market is that many traditional town centres such as Huntly are unlikely to go back to their more halcyon days of servicing the vast majority of the local community's retail needs. Rather, their future role will primarily be based around providing convenience based retail goods and services that are more frequently purchased, particularly food and beverage retailing, which can be accommodated in the town centre.

The Future Proof sub-region is not immune to the trends and influences identified above, and whilst it has the ability to defend its role and function better than many other traditional town centres in smaller provincial towns in New Zealand due to it experiencing solid growth (and strong growth prospects), it will need to consolidate its existing provision around the existing centre network and the Hamilton CBD in particular to make sure it is not unnecessarily undermined or compromised as a result of these trends.

Combined, all these factors paint a clear strategic direction for Future Proof, and in particular highlight a need to 'look after' the existing provision in the Future Proof centres to avoid further degradation and undermining of its offer from leakage to other areas either through dispersal of activity out of the city centre into adjoining areas or out of centre commercial development, and therefore maintain the centres existing level of amenity and vitality. This supports the existing strategic direction of Future Proof.

Drivers of Change in Future Proof Sub-Region

Some of the key drivers of change in Future Proof's retail market include the increasing 'power' of main transport routes as a retail location choice and their strengthening ability to 'shift' higher traffic volumes and fuel shopper movement, unrelenting market competitiveness and increasing consumer expectations in relation of offer, environment, experience and access, and the escalating (R)etail (R)evolution of 'clicks vs bricks' in reference to Internet retailing trends and influence.

Changes in retail shopping patterns in across NZ have been striking over the past half century resulting in a material transformation in the way consumers shop. This is not unusual in dynamic sectors such as retail which has to continually reinvent itself with fluid trends, services, products and formats in an attempt to attract the increasingly discerning consumer. In our opinion the key drivers of change in the Future Proof sub-region (and wider NZ) retail landscape are:

- Retail consumer expectation
- Transport accessibility and catchment extent
- Shopping malls and Large Format Retail (**LFR**)
- The (R)etail (R)evolution

Consumer Expectation

In retail terms 'a static centre is a dying centre', with unrelenting renewal of the retail offer and experience vital to staying ahead in an increasingly competitive market.

Given the commercial realities of there being 'winners and losers' in the retail game (with the latter tending to be a more popular category), one of the by-products of heightened competitiveness and commercial realities is often more retailers having to trade at lower store productivities ($/sqm), and positioning stores in higher performing centres (particularly banner stores) is becoming increasingly important to maximising sales potential. This will only become more pronounced in the future as market competitiveness grows.

There have been a number of key factors that have diluted the retail offer, vitality, amenity and ultimately performance of some of the 'traditional' town centres in the Future Proof sub-region (and NZ) to varying degrees, and driven changes in shopping patterns. For example, Huntly and Te Awamutu.

The Future Proof sub-region is not alone in battling these issues. At a higher level, the retail centres that have experienced minimal change in terms of how retail goods and services are delivered to consumers, and generally not reinvented themselves to meet today's 'expected' standard, has proportionally seen their consumer base and retail sales decline.

Major Transport Routes, Malls, and LFR

As mentioned earlier, major changes that have occurred over recent decades, and shaped NZ's retail market into what it is today, include the development of shopping malls, the on-going development with reduced travel times of the country's road networks, and the establishment of LFR centres. Coinciding with this was the emergence of the 'fast food' market and petrol stations expanding their non-petrol offer to become 'mini dairies' to provide improved convenience for the increasing 'time conscious' consumer.

This has resulted in consumers spreading their spending across a wider range of centres with the majority of their 'higher order' purchases going to 'higher order' regional centres triggering a layering of centre catchments across the region.

Clicks versus Bricks

Emerging now is the (R)etail (R)evolution with growing influence of Internet retailing, which allows consumers to purchase previously inaccessible goods. E-tailing is now moving into a mobile format with enhanced instant access to good and services able to be made while 'on the run' so to speak.

Growing e-tail sales will account for an increasing proportion of total retail sales (estimated to reach 20% over time) which will effectively reduce the amount of retail expenditure available for 'on-the-ground' retail stores given it's the same discretionary dollar being spent. This will not necessarily result in a decline in the retail built form from current levels, but more likely a slow-down in retail built form growth, as a result of market growth.

Successful retail centres in the future will continue to play a dominating role in retail markets providing human interaction and experiences complementing the significant Internet sales channel. Retail centres which provide more than just a generic goods retailing platform will attract consumers looking for a 'day out', and provide a wider range of functions not accessible through the Internet forum.

Interesting, diverse, and multi-functional retail based locations will always form an important part of society's fabric. Sub-regional centres will only be those large places which as well as providing a significant retail function are conveniently accessed and located to provide consumer needs across a broad spectrum of activities and services.

Many of Future Proof's key retail centres in its network are struggling to transition from their more 'traditional' role into the modern era becoming flexible, diverse, multi-functional / multi use experience focused centres offering live, work play opportunities. Centre experiences and centre environments are important contributors to creating a unique proposition in the market.

Recent changes in the policy settings to the Future Proof partner District Plans is an important step in consolidating activity, investment, experiences, land uses and focus, which is crucial to supporting one of Future Proof's key guiding principles of thriving, diverse and vibrant centres for both the urban and rural communities. These changes should enable centres, no matter what size or status in the hierarchy, to better play their role and function in the community and better meet community requirements.

4.2. OFFICE MARKET TRENDS

Some emerging office market trends that will influence (predominantly lower) the amount of office space requirements for both businesses and employees in the future, and impact how office space is likely to be utilised looking ahead, from which the Future Proof sub-region is unlikely to be immune, include:

- Telecommuting / Virtual Offices – increasingly businesses are offering telecommuting as a way to give employees more flexible schedules and in some cases make up for not offering larger salary increases. This also lowers the costs associated with traditional office space as a result of lower space requirements with fewer employees working in the office at the same time.
- Open Office Spaces – with fewer employees coming into the office, businesses are reconfiguring floor plans to devote more square metres to communal areas

and less to traditional, walled work spaces to include shared workstations or 'hot desking'.

- Mobile Devices – an increasing number of employees are using their own iPhones, iPads and other portable electronic devices for work instead of business issued computers or laptops. This provides the opportunity for employees to work 'anywhere at any time'.

- Instant Communication – an increasing numbers of employees view email as an inefficient form of communication compared to texts messages, social networks and other alternatives, with many commentators in the office trend field suggesting email is quickly going the way of the fax machine.

- Online and Real Time Collaboration Tools – more businesses are using web-based software to communicate with telecommuting employees and mobile workers via web-based programmes. This allows employee contact from anywhere with web access rather than having physically to be in the office, i.e. less office cubicles required. Many of these software packages now allow for real time collaboration between users, further shrinking locational limitations of the past. Adoption of 'cloud' based software has been particularly prevalent in tech industries that have reduced the need for costly hardware as they overcome the hardware requirements that where once needed, effectively outsourcing to the cloud.

- Independent Contractors / Freelance Workers – increasing more people are working as independent contractors, for many not because they cannot find permanent employment but because they want to. The 40-hour work week is quickly becoming a concept of the past, with many businesses paying contractors by the project instead of requiring them to spend 40 hours a week sitting in the office. This also assists de-risking business operational costs and overheads during quiet periods of work.

- Co-Working Spaces – there is an increasing movement for home-based businesses and workers to investigate the potential for co-working spaces in their local area. This is where they can find a desk for a few hours, often at minimal expense, plus access to conference / meeting rooms, Internet connections and other standard office amenities, without having the 'full cost' of a term lease. This is basically small businesses sharing the same office space to lower operational expenses. A side effect of this is the increasing connectedness of businesses, particularly start-ups who are now networking with businesses they would otherwise not have interacted with.

Combined these office trends, many of which are establishing in the market already, are likely to have a material effect on lowering office and employee space requirements in the future with most businesses focusing on better managing their operational expenses to increase competitiveness, profitability and ultimately investment return. These trends make it more important to consolidate office activity into the Future Proof centres (Hamilton CBD in particular, but also in town centres like Huntly, Te Awamutu and Cambridge) to ensure vitality and the role of the centres are not compromised due to the dispersal of such activity, and maximum economic benefits can be generated.

Again, this supports the guiding principles of Future Proof and in particular vibrant an thriving centres to live, work, invest and visit, and sustainable use of infrastructure and resources being in more consolidates locales.

4.3. INDUSTRIAL BUSINESS LOCATION CRITERIA

The location decision process of industrial companies is often complex and is specific to each business and its operational requirements. There are however a set of key locational criteria that give an understanding of the factors affecting business location. These were identified in the original economic analysis completed for Future Proof and remain valid today, and include:

- Undisrupted water and electricity supply . Note for some businesses the escalating price of electricity translates into lower profit margins, especially in power intensive industries. Black-outs and power surges are costly occurrences for businesses, especially if generators need to be hired.
- Digital capability – especially access to broadband. Many businesses now require uninterrupted broadband access. This also helps future-proof the business location.
- Close proximity / good access to transportation hubs, such as ports and airports . This is particularly important for logistics and warehousing/distribution businesses. This can clearly be seen by the new businesses establishing in or around the business parks close to the major airports around the country, such as Auckland and Christchurch, which are heavily dominated by logistics and freight forwarding companies.
- Proximity to an appropriate labour supply . This varied between sectors based on the skill level of the workers required. For example, many manufacturing businesses required lower skilled workers compared to businesses in the professional services sectors, so the location requirements were slightly different. For many industrial businesses access to labour is an important consideration in their location decision making processes, especially for manufacturing businesses where access to semi-skilled labour is vital. In general, business locations in areas that have a lower level of access to the workforce are seen as problematic.

- Location of customers / target markets (domestic and international). This has a strong influence on location depending on whether the business is servicing a localised market, a regional market or the national or international market. For those businesses servicing the localised market a central location is preferable to reduce travel costs. For those servicing the national and international markets and those businesses that have large transport costs, locations in close proximity to State Highway 1 are preferable.

- Access to major road corridors. This is important for staff getting to work, clients / reps visiting premises, and the efficient distribution of goods. Sites (or locations) adjacent to major arterial roads preferred and often receive a premium in the market. All activities that have a distribution/logistical focus prefer these locations. As part of this criterion, improved transportation in industrial areas is also seen as a future requirement, particularly in regard to better roading networks, traffic management, and close to public transport services.

- Location of suppliers. This can be especially important for businesses that have significant raw material inputs and freight costs.

- A company's existing network and infrastructure. This can have a major influence on location, especially for national franchises to avoid inefficiencies.

- Room for potential expansion and growth on the site. For most businesses relocating is a very expensive exercise, and for businesses with significant investment costs into plant and machinery, they like to have a level of certainty that they will be able to operate from the site for a long period of time to ensure they achieve a return on their investment. Thus having the ability to expand their operation to allow for business growth onsite is important. It's an important consideration for businesses who want to mitigate long term risks on their capital investment.

- Land and property costs. This is a key criterion in the location decision of almost all businesses, particularly those that operate on low margins.

- Potential to secure resource consent. Often if the resource consent process is going to be long and drawn out, most businesses will not enter the process at all as time delays can have significant effects to their bottom line and business operations. As such certainty is seen as a big benefit to business locations who can offer it. A master planned development with Council approval removes this risk. There is also more certainty that reverse sensitivity effects arising from incompatible land uses can be avoided.

- Level of congestion in peak times. This is becoming increasingly important, as it can have a significant influence on delivery businesses. In many main centres for example, this is now a major consideration where time delays and trucks getting caught in traffic is having significant flow-on implications for company logistics and their ability to service clients to the level required.

- Owner's home address. This is predominantly for smaller businesses that have a greater level of flexibility on where they can locate.
- Exposure / Profile. Most businesses seek locations that offer some level of exposure and profile. This is a cost effective method of marketing and is able to elevate the brand of a business significantly.

The weighting an individual industrial business would place on each criterion varies depending individual circumstances of the business and owner(s), specific location / site requirements and sector / type of activity.

These criteria are not all unique to the industrial business sectors as such there is often a significant level of competition from a variety of other sectors. Exposure, profile and accessibility are also sought after attributes for many commercial enterprises that would otherwise locate closer to centres and in turn compete for locations with higher value businesses. As these commercial businesses seek to locate on industrial land it creates a variety of unintended and potentially detrimental consequences. The potential impacts include:

- Increased, uncompetitive industrial land prices
- Uncompetitive and inefficient remaining industrial land
- Disjointed industrial activity
- Disperse commercial activity
- Reduced amenity for industrial activities
- Inappropriate and inefficient market signals
- Insufficient industrial land capacity
- Increased uncertainty for industrial tenants and long term investment
- Land banking, attempting to attract high value businesses and discounting lower valued industrial (i.e. the level of lease terms and investment required for some industrial businesses make the land use decisions long term and fix land owners for long periods removing the potential for commercial leases).

Overall the uncertainty and market failure resulting from ‘other’ activities locating on industrial land has the potential to undermine competitive industrial markets and in the case of Future Proof has the potential to defer growth to the remaining ‘golden triangle members.

5. GROWTH AND THE GOLDEN TRIANGLE

The Future Proof sub-region's future growth storey is no longer just about Hamilton, Waipa and Waikato, but the 'Golden Triangle' of Auckland, Hamilton, Tauranga and rural surrounds. The 'golden triangle', whilst not a new concept, is becoming increasingly relevant to the Future Proof sub-region in terms of overflow demand and market growth opportunity that the Future Proof sub-region is well placed to 'tap into' if competitive business and residential environments can be created. The 'golden triangle' represents significant market potential for Future Proof to accommodate, in particular, overflow demand from Auckland.

This is more relevant today than when originally considered in the Future Proof Strategy due to the redrawn territorial authority boundaries (and therefore Future Proof sub-region boundary) over the intervening years, which moved the Waikato District boundary north to encompass townships like Pokeno and Tuakau. These townships (and growth within these townships) in effect is influenced and operate as part of the wider Auckland market, and therefore Auckland has more of an influence on these townships rather than the Future Proof sub-region itself. It is considered important to recognise this as an important difference between the original Future Proof Strategy document and an updated version, i.e. the influence of Auckland (its growth, its property cycles, market dynamics, planning decisions, land use patterns, etc.) on the Future Proof sub-region is more pronounced now than when the original Future Proof document was initiated.

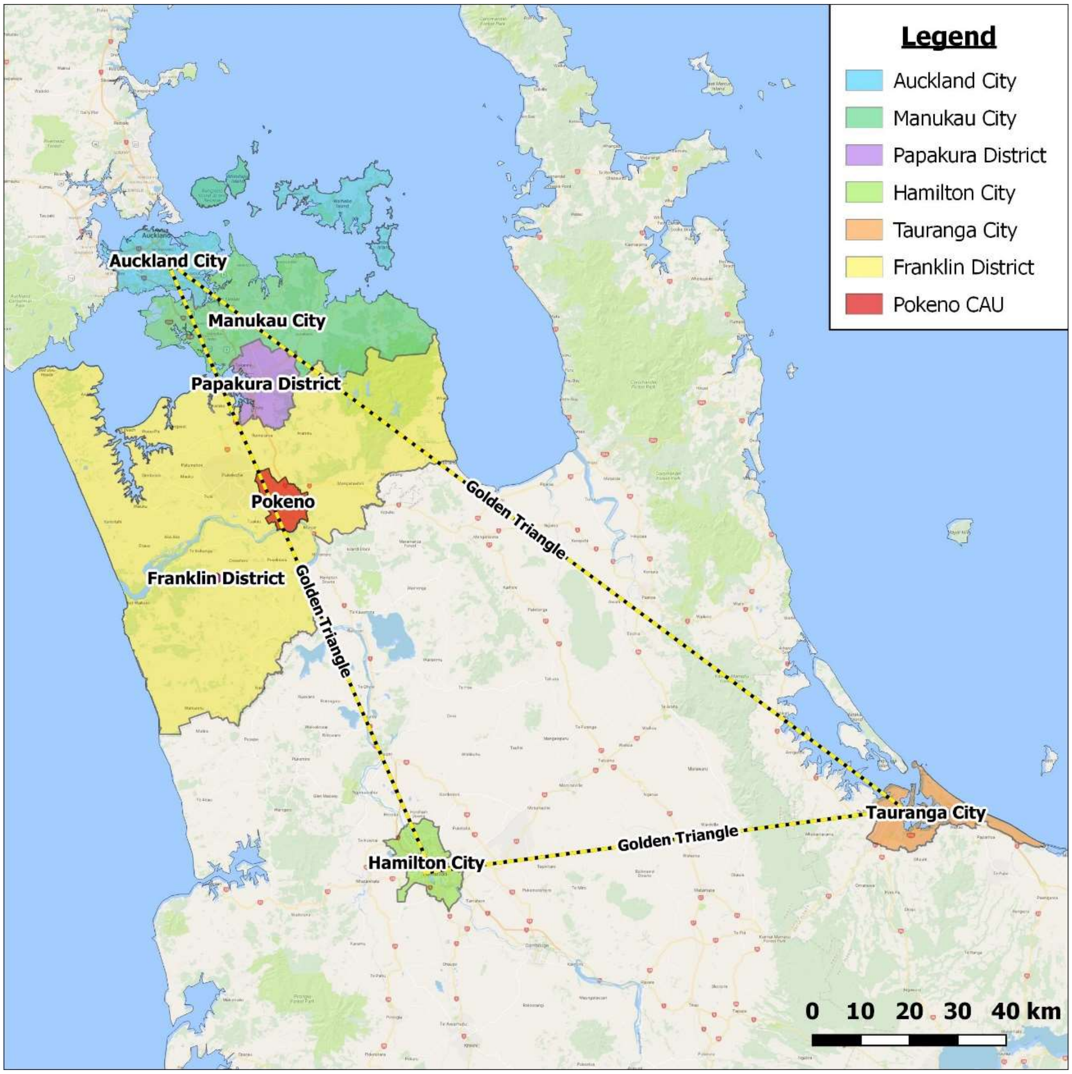
5.1. POKENO EXAMPLE

By way of an example, Pokeno over the last 3-years has seen a substantial increase in residential development, with residential building consents over this period eclipsing previous years with more than three times the volume of that consented in the previous 12-years. It is Property Economics understanding that most of these consents (house and land packages) have been sold and are either currently under construction or to be developed, and the developers could sell more homes if they were able to develop them at a faster pace.

Pokeno has the on-going opportunity to 'tap into' the escalating 'overflow' demand for Auckland urban fringe locations with more affordability due to many buyers being *'priced out'* of the Auckland market, with Auckland land prices making it increasingly difficult to deliver 'affordable' properties to the market. Te Kauwhata is another township close to the Auckland market (i.e. comfortable drive time in respect of work travel) that has the same opportunity.

Figure highlights the golden triangle and where Pokeno sits within it by way of example.

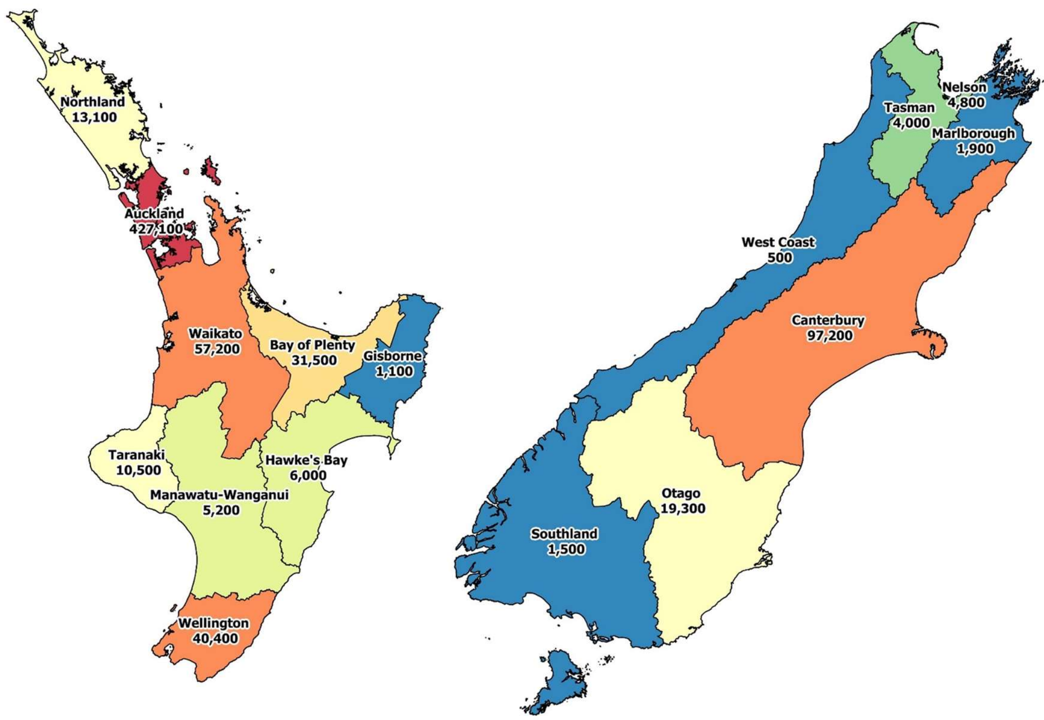
FIGURE 3: GOLDEN TRIANGLE



Taking this higher level perspective, within the 'Golden Triangle' net additional household growth over the next 17-years is forecast to equate to demand for around 211,000 new dwellings, or an average of 12,400 new homes per annum. To put this into context, the existing Pokeno Structure Plan 'at capacity' will accommodate around 2,000 residential dwellings. Relative to the net growth over the same period this equates around 1% of the forecast growth within the Golden Triangle. The percentage figure is not as important as contextualising the growth opportunity and market demand. There is significant opportunity to continue the story and elevate growth of Pokeno) and Future Proof sub-region) and generate transformational change for the Future Proof area given its strategic location in the centre of the 'Golden Triangle' and its proximity to Auckland.

To provide some further higher order context, around 82% of NZ's total forecast household growth is projected to occur within the North Island, with three quarters of growth across the nation located north of Taupo (73%), and nearly 60% located within the Auckland Region alone. This further highlights both the opportunity and importance of areas within the 'golden triangle' to provide supply for accommodating future residential demand. This is graphically represented in Figure 4.

FIGURE 4: NEW ZEALAND HOUSEHOLD GROWTH DISTRIBUTION (2016 – 2033)



Source: Property Economics, Statistics NZ

Furthermore, there was a general consensus between expert witnesses during the Auckland Unitary Plan conferencing[1] that the region was in the order of 30,000 dwellings short of satisfying current supply requirements. The means that there are already 'spill over' demand effects occurring to urban fringe locations outside of the region (i.e. Pokeno). It is this 'spill over' that Pokeno and the Future Proof sub-region can target. Another tributary effect of Auckland's housing supply issues is an increasing trend of multiple household units residing in a single dwelling, with high house prices being an important factor driving this movement (which is a derivative of supply shortages).

[1] PAUP 013 Urban Growth chapter and 080/081 Residential Rezoning chapters expert conferencing.

Another important higher order influence is net migration levels to New Zealand. Since the Global Financial Crisis (2008) the market has reset itself and changed dramatically to adapt to the new economic environment that exists – globally and in NZ. New Zealand (and Auckland in particular) housing trends are no longer determined simply by local population growth but also consistent levels of overseas immigration. This impact remains relevant currently and is likely to continue to impact upon economic, business and residential decisions over the coming 5 to 10 years. While markets have in fact 'recovered' from the GFC the inherent changes that have resulted continue to shape business decisions and extent of land use activities as well as the significance of Future Proof area in terms of the upper North Island market.

Table 1 quantifies the migration flows in and out of the country, and the net migration position, over the 2001-2016 period. The data graphically shows over the last two years' net migration has moved to unprecedented levels, and reached a high of over 70,000 people in 2016. Current levels of net migration are placing increased pressure on residential supply with 'new builds' struggling to keep pace with escalating housing requirements of the market.

TABLE 1: NZ NET MIGRATION DATA 2001-2016

Year	Arrivals	Departures	Net
2001	81,094	71,368	9,726
2002	95,951	57,753	38,198
2003	92,660	57,754	34,906
2004	80,479	65,371	15,108
2005	78,963	71,992	6,971
2006	82,732	68,123	14,609
2007	82,572	77,081	5,491
2008	87,463	83,649	3,814
2009	86,410	65,157	21,253
2010	82,469	72,018	10,451
2011	84,187	86,042	-1,855
2012	85,255	86,420	-1,165
2013	93,965	71,497	22,468
2014	109,317	58,395	50,922
2015	121,937	57,007	64,930
2016	127,305	56,717	70,588

Source: Property Economics, Statistics NZ

As already highlighted, demand is not the issue for growing Future Proof's residential base as demand is already in place (both at present and in the foreseeable future), but providing an appropriate and competitive offer to the market through increased residential supply is considered important to securing additional Future Proof growth potential.

Ultimately, future residential demand in the Future Proof sub-region (northern components in particular) will depend on its ability to capture demand from surrounding markets, but given the significant scale of this demand, and Pokeno's success to date, the Future Proof sub-region is well positioned to take advantage of the opportunity. In this regard, if successful Property Economics see potential upside to the future growth profile of the Future Proof sub-region.

6. ECONOMIC RATIONALE BEHIND JUSTIFIED FUTURE PROOF PRINCIPLES

The need for exogenous intervention into a market is necessitated by the fundamental intent of seeking to maximise community wellbeing either through improvements in equity or an improvement in economic efficiency. Seeking to improve economic efficiency within the Future Proof sub-region's business environment consequently enhances community wellbeing.

In simple terms, the fact that the market will not seek to maximise community wellbeing but pursue individual party (private sector) interests is key in understanding whether the market requires a balancing mechanism in order to redress the potential imbalance between community interests and individual interests. It is important to note that this is not simply an academic exercise, the result of an individual party or parties gaining an additional proportion in profits (or simply a decrease in costs) could result in the loss of a tangible resource for the community hundreds of times more valuable.

There is a distinct thread running through the Resource Management Act 1991 (RMA) that deals with community wellbeing in terms of efficiency. A primary guiding principle of the RMA is the efficient (and sustainable) utilisation of scarce resources within a community. There has been recognition from the Environment Court that efficiency, as it pertains to the RMA, relates to economic efficiency and there is a need for this to instruct policy governing the utilisation of these resources. This implies that the decisions by which these resources are consumed are derived in an economically efficient manner.

The market is indeed a powerful mechanism for the efficient allocation of resources and all too often unnecessary intervention causes markets to operate inefficiently with potential benefits lost to the community in order to protect private concerns. However, the essential proviso here is providing that society's resources are priced according to their real value to society as a whole rather than individuals. This is the basis for Future Proof's economic intervention, that left to its own devices the commercial market will not operate efficiently given the fact that the market fails to consider total community well-being. In order to justify intervention, it is fundamental to show that the market outcome will produce a less than optimal, or efficient, result for the community.

6.1. ECONOMIC EFFICIENCY

For the purposes of this review there are three forms of economic efficiency - productive, allocative and dynamic.

Productive efficiency - relates to the efficient use of resources to maximise the '*bundle*' of outputs (goods and services) an economy can produce.

Allocative efficiency - has to do with the value of what is produced to the community as a whole. This implies that community welfare is maximised based on a particular allocation of resources. Although this is often seen as Pareto Efficiency, where it is not possible to make a member of the community better off without making someone else worse off, in public economics this has been more commonly referred to in terms of the community as a whole. In some cases, where possible, this requires compensating affected parties. In order to pursue allocative efficiency, it is fundamental that all key consumer values and preferences are identified and considered. This point is pivotal with regard to maximising community wellbeing from scarce resources and is therefore fundamental in understanding economic efficiency.

Dynamic efficiency - deals with the differing timeframes often occurring between options. This efficiency seeks to compare outcomes in terms of a 'net present value' or 'NPV'. This generally requires the use of a discount rate for the comparison of costs and benefits.

Economic efficiency is essential when providing for sustainable resource use, this efficient employment is key with regard to economic well-being. As stated and consistent with the RMA 1991, this efficiency should not be a rationalisation for the protection of individual businesses or business locations through simple trade competition. However, what is essential is the identification of any distributional effects from the market's operation.

These distributional effects are costs or benefits that are not considered by the market and yet are critical to enhancing the community's economic and social well-being. In relation to the Future Proof Strategy these are not simply the potential decreases in trade or business in any given area, but the additional real benefits to the community of having these activities in these specific locations.

Economic efficiency is the key in both achieving and resulting from the fundamental principles of Future Proof. Consideration must be given in terms of providing sufficient business land for the economic well-being and functioning of the Future Proof economy while balancing this with locating this activity in the most efficient and effective areas. As identified sometimes these objectives conflict from the point of view of differing parties. The individual motivation of businesses to minimise locational costs and improve operational efficiencies can come at a community costs in terms of inefficient infrastructure and agglomeration losses. The Future Proof principles seek to consider all these potential costs and benefits to achieve a more sustainable and efficient economy rather than simply improving short run competitiveness at a long run cost.

6.2. ECONOMIC EXTERNALITIES

There is an important distinction to be made in terms of the types of externalities that must be considered. Externalities typically take two forms - pecuniary and true.

Pecuniary externalities - equate simply to market effects which are not, and should not be, assessed under the RMA. These are simple price effects and are not considered in cost benefit analysis.

True or technical externalities – have a real impact on the efficiency level of a market thereby affecting community well-being. They are effects of a market decision on the resource use of a third party.

Externalities occur when one party's actions affect another party's well-being and the relevant costs and benefits are not reflected in the market. The RMA makes a clear distinction between market effects and true externalities. The sustainable and efficient management of resources under the RMA is based on the inclusion of these effects.

In part the justification for intervention in locating business activity is similar to that given for residential. Councils restrict the spread of residential development to more intensive zones because the cost of allowing dispersal are significant and are not considered by the market, such as increased infrastructure costs, reduced transport efficiencies, inefficient land use, as well as reduced community amenity.

These are factors that an individual participant in the market does not always consider, not just the impact of these costs on themselves but the cost of their decision on others. The opposing costs of not allowing residential to spread are potentially increased residential prices and reduced development. These are costs that in commercial business are likely to be less than in residential and yet the net benefits of restricting residential expansion are clear. The continued expansion of residential would not only incur increasing social costs but has the potential to stifle innovation and produce a dispersed community. Planning is about informed value judgements and potentially restricting individual choice for the benefit of the entire community's well-being.

A fundamental factor in operating competitive vibrant business centres is the level of amenity offered; key to this is the level and choice of retail activity within a given area. To remain competitive and fulfil its role and function in the community, it is crucial that a primary business centre provides an appropriate level of both retail and commercial (office) activity. This is a symbiotic relationship where one relies on the level of activity produced by the other. This relationship primarily between commercial and retail activities creates more vibrant community centres which translates to greater community wellbeing.

It is important to note that this appropriate level of activity is proportionate to the competitive size of the district and economy in general. It is not appropriate to assume that the level of centralised activity, in the primary centre, within a larger economy is the same as in a small district. Larger economies typically have a greater number of business centres that represent a smaller proportion of the total activity while still creating economies of scale and efficient resource use. The recent global economic decline has however elevated the importance to the Future Proof sub-region economy of centralising activity to improve efficiency and competitiveness. As businesses seek to improve efficiency and productivity it is vital that the Future Proof sub-region offer a competitive regional centre (Hamilton CBD in this instance) to the wider economy.

6.3. BUSINESS DECISIONS

As outlined previously, market decisions are primarily made based on private costs and benefits, typically costs or benefits borne by the community that are not recognised by the participants and therefore lead to an inefficient allocation of resources. Businesses choose locations based on a series of criteria that are balanced against their own costs and benefits and therefore produce the highest net gain for themselves. These criteria generally include but are not limited to; suitable profile / exposure, accessibility for customers and suppliers, feasible costs, appropriate parking provision and appropriately shaped sites, as well as those identified earlier in this review.

The benefits of the market led approach are the clear market signals which are necessary to produce equilibrium in the market where the amount of business land supplied is in balance with demand in any given location. Traditionally retail and office, along with other activities, have clustered into 'centres' due to observable benefits to both the consumer and producer. These benefits of agglomeration have, in part, been recognised by the market and are inherent in business location decisions.

However, in the presence of externalities (impacts not considered by the market) these signals can fail resulting in either an over or under production of business activity in the wrong locations. Without regulation business locational decisions in the Future Proof sub-region will continue to be based on private cost benefit decisions. Given the opportunity operators and developers will continue to locate based on their own investment returns and will not have regard for what is best for the community. This goes against one of the key economic pillars for the Future Proof Strategy.

Individual businesses within the Future Proof sub-region are sometimes motivated by private benefits that carry with them costs to community that far outweigh these individual gains. Although many of the criteria outlined above are represented within centres the weighting of these is crucial. For example, '*destination*' retailers prioritise land costs given that they do not require the critical mass created within established areas. This is often justified by the potential savings they offer to consumers while reducing their own costs.

It is argued that these private benefits are often outweighed by the costs to the community of this locational strategy; this cost is further exacerbated by the exodus of smaller stores following the larger profile retailers. This 'pulling power' is evident in the retail market as it operates currently. When consolidated retail landlords such as malls negotiate lease terms with larger anchor tenants they factor in the large patronage they will generate for smaller retailers and leverage the rents accordingly.

It is important when considering the dispersal of business activity within the Future Proof sub-region to consider the difference between the marginal impacts of a business operating inefficiently and isolated impacts. This is an important point especially with regards to centres. For example, the loss of shoppers, or workers, in a centre will have a marginal impact on vitality. This change is extremely difficult to assess comparatively however, for example shoppers would need to be asked what impact on the vitality value a 10% decrease in shoppers would have on a centre. Therefore, when making a decision on the likely impacts consideration must be had for the total value (cost and benefits) and the likely proportional (incremental) impact on the variables affecting these (e.g. the number of shoppers visiting a centre). Often however a value judgement must be made by public decision makers as to the comparative values of these costs and benefits.

Geospatially it is important to note that decentralisation also refers to the sprawl of centres, as opposed to the growth of centres, where capacity exists within the identified centre but activity often takes the path of least individual resistance and spreads throughout the periphery. This in effect undermines the potential efficiencies of intensified land use. The argument that some businesses require these locations to operate effectively simply reflects an individual position and does not consider the net impacts on the economy as a whole. This consideration is fundamental in providing for the long-term wellbeing of the community.

The fundamental issues underlined here are simple to outline but somewhat more difficult to assess. They involve the principle that centres are community assets in themselves and therefore the following must be considered:

- What are the potential benefits of locating business activity in 'centres';
- Does the market (either supplier or consumer) give appropriate recognition to these benefits and the potential community value;
- Are these true externalities and what is the potential extent of these benefits to the community;
- What are the likely costs of restricting the potential locations for business in the Future Proof sub-region to higher density areas;

- What level of priority should the Hamilton CBD hold over other potential business locations.

Given that there are potential costs associated with regulation, not least of which is the muting of market indicators, there needs to be a clear understanding of the level of potential effects associated with the market failure. These assessments are not intended to quantify the direct impact of proportional decentralisation but to indicate the potential social and economic values that are jeopardised.

In terms of a hierarchy there is clear recognition of the economic significance of the Hamilton CBD (or central city) to the Future Proof economy. The Hamilton CBD plays a crucial role in the identification of the Future Proof sub-region as a whole, but also provides essential profile enabling the sub-region to compete for business from the wider market. The CBD represents a significant community investment that has the potential to provide net economic returns that are unlikely to result anywhere else in the sub-region. As such there is a need for the recognition of the primacy of the CBD in the hierarchy of centres within the sub-region. There are very real economic benefits attributable to activity that specifically locates in centre and in particular the Hamilton CBD.

6.4. EFFICIENCES OF INTENSIFIED BUSINESS ACTIVITY & THE HAMILTON CBD

The economic argument for intervention is based on the fact that the market fails to consider significant community benefits achieved through the consolidated location of business activity. These failures conceal the 'true' value of centres and if unchecked are likely to result in an inefficient use of resources.

It is important to note that the loss of these potential benefits are not confined to the impacts on existing business activity but must also be considered in terms of the potential future efficiencies that could be achieved. In these terms a lost social benefit is tantamount to a social cost. The potential loss to the community of 'decentralised' business activity is coined in this section in terms of the benefits of 'in-centre' activity. The benefits (or alternatively dis-benefits) discussed here include the decline in centre function and amenity along with adverse effects on the roading network, public transport provision, resource productivities, land efficiencies, community facilities, productivity and centre infrastructure. Each is also assessed in terms of whether they should be regarded as 'true' externalities and to what level the market may (or should) be considered to have regard for them.

6.4.1. DECLINE IN AMENITY OF CENTRES

The amenity of a centre is directly related to its vitality and vibrancy, which in turn has a strong correlation with the level and potential level of people within a centre. A loss of patronage to a centre is not only likely to result in decreased infrastructure efficiencies and a fall in other activities but is very likely to reduce the value residents place on the vibrancy and sense of community achieved there.

These functions are notoriously difficult to assess in terms of their use and value to the community. In June 2007 and February 2009 Property Economics undertook a 'social survey' of several cities throughout New Zealand. The purpose of this survey was to gain insight into what residents valued in a major activity centre. A contingent valuation methodology was used here because it is one of the only ways to assign dollars amounts to non-use values for an environment, values that do not involve market purchases and may not involve direct participation or can be assessed through proxies. While the survey was conducted in 2007 and 2009, the insights are considered to still be relevant today.

This survey was designed to assess the value that residents placed on business centre attributes and compare these values between compact and more dispersed commercial markets. Residents were asked why they visited a centre business area, how often, what they considered most important about it and then attempted to place a value on having access to retail in this centre as opposed to more dispersed locations. The purpose of this survey was to illustrate the magnitude of value that is being jeopardised. The value assessed is inherent in all community centres but exists at a higher level given the strategic importance of a centre within an area. The Hamilton CBD is the community focal point for the whole sub-region and as such would exhibit values proportional to those found in the study.

In considering the costs and benefits of a centres based planning strategy it is important not just to have regard for the current situation that exists in the sub-region, but the benefits that are likely to be attributable due to adopting a consolidation approach. These benefits can then be weighed against a more liberal dispersal stance. The hypothesis here is that the Future Proof sub-region has already suffered from significant levels of dispersed development that has potentially reduced the social value of the Hamilton CBD as well as its regional competitiveness. It is also important to note that as activity intensifies in this centre the social value associated with it is likely to rise still further (there are spatial limits to this in larger areas that can 'crowd out' or reduce this increase). The benefits of the consolidation approach are equally applicable to other centres in Future Proof (e.g. Huntly, Te Awamutu, Cambridge), albeit the larger the centre the larger the benefits attributed to the approach generally.

Although, as previously pointed out, marginal changes in community values would be ideal, the use of total value figures give clear indications of the potential value and therefore the loss to community well-being.

As commented earlier the comparison here is not the current situation compared with continued decentralisation (or the 'with' or 'without' scenario), it is consolidation of business activity in the Hamilton CBD versus this dispersal scenario. Value to the community of these retail / community centres is not just what is currently valued by the community but what could be achieved. This value is an indication of the potential loss to the community that is unlikely to be replicated elsewhere.

It can be argued that this activity and vibrancy act as a competitive advantage for the CBD and thereby work as trade competition. However, the value of the CBD to patrons is not just determined by their own decisions but those of other participants who do not consider this loss in their decision making, resulting in a direct resource effect on a third party. By dispersing business activity, the value of a vibrant centre is reduced, there is little doubt that, allowing for congestion, there is a direct relationship between the level of activity in a centre and the average amenity value achieved from it.

For the Future Proof sub-region this is crucial as less intensive commercial, or industrial activities based in other areas, argue that they provide a unique attractive area for business. In economies the size of the Future Proof sub-region such areas are unlikely to result in 'additional' business activity within the district and simply detract from the potential efficiencies of this activity being consolidated. In simple terms, once again although there may be some benefit to the individual businesses in locating in less intense areas the loss to the economy as a whole will inevitably outweigh this.

The Future Proof sub-region currently exhibits signs of 'commercial sprawl' with businesses being attracted to fringe locations outside of the CBD and in fact any centres. As previously stated although this may be beneficial to these individual businesses, within the current Future Proof sub-region's economic environment, these locational decisions will, and have, impact upon the sub-region's overall all efficiency, productivity and employment retention rates.

Further to this dispersing commercial activity, and the resulting reduction in vitality and vibrancy, will reduce the marketability or competitive nature of the remaining CBD in turn shifting the balance for other businesses who are likely to reassess their locational choices away from the CBD.

A more liberal view may also illustrate the problem of reducing the choice of some people for the benefit of others. The issue here pertains to welfare economics; it is the wider community well-being that should concern policy makers. This is the purpose for intervention impacting upon what the market would produce so that it creates a social equilibrium. In making a private decision a patron may weigh up a price saving of say $50 per annum (in an out-of-centre location) with their social value of an existing centre, $40, and make the decision based on the perceived $10 gain. However, the fact that they no longer use the centre may have a cumulative effect on everyone else of $100 per annum. Thus the community well-being is enhanced by having that patronage in the centre.

In terms of benefits to the wider economy, vibrancy and local amenity are often key factors in the housing and employment decisions made by skilled labours. This environment is more likely to lead to increases in value added goods and productivity gains for the local economy. The framework under which businesses locate in the Future Proof sub-region neds to be careful not to exacerbate the dispersal of this activity reducing the sub-region's overall competitiveness not only for business in general but in terms of its appeal as a visitor destination and residence.

6.4.2. AGGLOMERATION AND PRODUCTIVITY GAINS

The arguments for agglomeration pertain mainly to specific productive activities within an economy. The basis for these arguments is that increased densities lead to synergies, improved flow of information, ideas and innovation, economies of scale and utilisation of resources. The presence of agglomeration effects within the New Zealand market is somewhat contentious, however the supporting academic and empirical evidence identifying the economic benefits are particularly strong and widely accepted.

Work undertaken in 2007 by Ascari Partners and Richard Paling Consulting (Williamson, Paling & Waite, 2007) has shown a doubling of employment densities accompanied by accessibility will result in productivity gains of around 6%. While work undertaken in Britain (Dan Graham 2006) found that the doubling of the effective density rate (in a given area) resulted in average productivity gains of 12.5% and service sector gains of 22.1%. It is important to note here that these productivity gains would need to already exist in a market for them to be considered by individual firms and are therefore less likely to occur without other incentives for them to locate here. Therefore, this is unlikely to currently be a motivating factor within the Future Proof sub-region given the market that exists.

Agglomeration benefits are generally based around the ability for a centre to provide the following:

- increased specialisation – there may be enough business to support a general accountant or lawyer in a small town but in a large city there is enough to support business advisers who specialise in very narrow fields of work thereby improving efficiency and expertise;

- knowledge spill overs, both between firms in the same sector and across sectors, leading to increased innovation;

- competition – the presence of lots of firms offering similar products spurs on competition, innovation and efficiency and there are lots of buyers to compete for;

- larger labour markets offer wide choices for employers and the opportunity to recruit staff with specialist skills;

- economies of scale are created by serving larger markets.

There are varying levels of these benefits given the overall size and role of a centre within an economy. The CBD represents a unique opportunity for the Future Proof sub-region to provide these benefits at a level that will create a more productive economy, increasing the well-being of the entire community and resulting in greater levels of competitiveness for the Region as a whole.

It is important to note that agglomeration is not restricted to large cities but is the result (at differing levels) of diversity and the ability for an area to attract more productive sectors into the economy that would otherwise service the Future Proof sub-region from outside the area. These sectors will typically only locate in accessible areas that exhibit synergise (spatially) with the local market. The consolidation of activity, within specifically the existing CBD, is the only way by which the Future Proof sub-region will attain any degree of these agglomeration benefits and improve its economic competitiveness.

The agglomeration of commercial activity has two effects which are important to distinguish between, the first is the increased profile created by a critical mass of activity. There are obvious 'flow-on' benefits to suppliers of locating within a vibrant and active centre along with the potential for some economies of scale. These benefits however are for the most part considered by the market in its locational decisions. Based on these benefits alone there would be no requirement for intervention as the market would operate efficiently.

However, the second impact of agglomeration has to do with the environment that is created through this critical mass. Centralised business activity creates both amenity and diversity with the local area. The agglomeration of commerce into centres provides an environment that will facilitate that agglomeration of other commercial activities and allow for the productivity gains identified above. International research has shown a clear link between vibrancy and local amenity and skilled employment and business locational decisions.

The ability of commercial, industrial and retail activities to provide this environment, and thereby improve community wellbeing, is not considered in individual business decisions and are therefore distributional impacts with regards to this resource.

6.4.3. ADVERSE EFFECTS ON COMMUNITY INFRASTRUCTURE

The provision of community facilities and infrastructure is a social investment. The justification for this investment is the social value that these services and facilities provide to the community. This is considered to be significant enough that they are publicly funded and supplied. The reason they are publicly supplied is because given their social value the free market would not supply enough of them given a patron's individual value (price).

This level of social investment is evident in the fact that over the next 20 years it is expected that the Future Proof partners will spend nearly hundreds of millions of dollars (possibly billions) on town centres and major connectors.

In the Future Proof sub-region town centres these facilities include libraries, civic and administrative functions, community centres, public meeting areas, police stations, transport nodes, etc. These are generally provided in centres with high activity so as to coincide with retail and other uses.

The scale of these facilities also coincides with the scale of activity located within the centre, e.g. the primary library in the Future Proof sub-region is in Hamilton CBD. This in, and of itself, is reason to suggest that there is a direct relationship between use of community facilities and other activity such as retail and commercial activity. Simply put the greater the level of activity and accessibility in a centre the greater the utilisation of such public assets. Not only is profile important for these types of facilities but they are located to make good use of multi-use trips.

The provision of these facilities are sometimes seen as 'sunk costs', dismissing their relevance and their potential underutilisation as costs to decentralised retail activity. Although this line of thinking is correct with regards to the fixed investment it fails to consider the return from the community investment that is lost if these assets are undermined. The utilisation of these assets has community value that must be considered when potentially reducing their usage. Property Economics consider what are seen, in this regard, as sunk costs are in fact community investments that must be considered in terms of their initial costs (and hence on-going opportunity cost) to society. Even if the investment is irrecoverable (hence not property, etc.) there is still a need to have regard for this investment, especially if not considering their value is likely to lead to a duplication of facilities.

There are two potential effects of reduced usage of community facilities within centres. The first is that the marginal cost per patron increases thereby reducing efficiency and reducing the social benefits through its provision, and the second is that the infrastructure has to be duplicated (even on a small scale) elsewhere causing significant inefficiencies of community resources. The costs involved in underutilisation of these resources or indeed their duplicate are relative obvious and must be considered when locating associated activities.

The provision of these facilities within centres may result in a slight competitive advantage for these retail locations as they draw primary users, however reduced activity densities will result in a lower potential utilisation. (Property Economics Social Survey showed 19% of personal visits to town centres were to utilise community facilities, 10% of these were the primary purpose for the visit)

The Future Proof partners provides these resources because they have significant social benefit to the community, to undermine their use, in any way, diminishes that benefit. The basic principle here is to try and maximise the net social benefit gained through provision of these goods, therefore the location of these is extremely important. To put a library in the middle of no-where and then to argue that people still have the choice to use it if it enhances their own well-being is absurd, it increases the private cost and reduces the social benefits associated with that facility. This co-location also has the potential to increase accessibility and efficiencies in terms of travel.

The argument pertains to whether the choice made by patrons is an informed one and whether the 'free' market will take into account the 'true' value of these resources to the community. Society is continually restricting consumer choice based on what is most beneficial to the community as a whole, cigarettes, drugs, pollution, etc., private choice is restricted for the betterment of society. Individual choices must be held accountable to the community.

6.4.4. TRANSPORT EFFICIENCY

The basis for this pillar (from an economic perspective) lies in the transport efficiencies achieved through the agglomeration of activities with one of the key generators or these travel patterns being retail and industrial patronage.

Transportation efficiencies are fundamental when considering the economic costs and benefits associated with this intervention. These values are inherently linked to the level of accessibility to activities and assets within these areas. In terms of costs, relating to the Future Proof Strategy, it is crucial that consideration is made for the capacity of this infrastructure as the benefits are likely to be tempered by a 'crowding out' effect.

In terms of transportation this is often referred to as congestion. The impact of this is to reduce the benefits attributable to these locations while increasing the costs in terms of reduced convenience and increased travel times. Given the conditions that exist in the Future Proof sub-region it is highly unlikely that this will occur.

Efficient transportation networks provide obvious benefits to the community that are not considered in these decisions. These benefits include:

- Reduced public costs for roading and transport infrastructure (reducing the need for duplication)
- Reduced pollution
- Increased certainty around public and private sector infrastructure investment
- Reduced marginal cost (reducing the 'per trip' cost)

It is generally accepted that there are transport efficiencies associated with centralised activity. It is fundamental to note that not all these benefits are considered in individual decisions. Given that the level of investment into this form of infrastructure climbs into the millions of dollars it is critical that this be given some level of security as to its efficient utilisation and therefore effective return. Retail location is essential both directly and indirectly in these decisions due both to the level of activity generated by this market and the co-location of other activities due to amenity.

6.4.5. LAND USE EFFICIENCIES

A key purpose of planning is to produce the most efficient use of an economy's land resource. Planning regulations are designed to control private uses for this resource so as to produce a sustainable long-term outcome. Inherently there are two potential short-falls of the market in achieving this with regards to business location.

The first issue is associated with the potential lack of information available to private developers. This may take the form of making decisions without full knowledge of competitor investment plans. Inaccurate forecasts of future demand may affect the efficient allocation of this land resource. This potentially leads to an oversupply of commercial space within the market. The relevance to commercial locations is that there is a propensity of out-of-centre development to have a greater degree of viability (and lower risk) in the short-run thus resulting in the over-supply.

Secondly, potential efficiencies are lost where a resource is over allocated as the market has no necessity to utilise these efficiently. For example, without restrictions on residential land some efficiencies would be lost from higher density living. The efficient use of land is fundamental to community well-being. The provision of relatively cheap land in inappropriate locations provides the market with misleading signals which has the potential to reduce the productivities of land for the entire economy.

This position is only partly tempered by the need to provide adequate quantities of land in appropriate locations to meet the potential demand and provide a competitive environment. However, the negative impacts of an oversupply of land are most acutely felt in the commercial market and so are most crucial in terms of net effects. Within the Future Proof sub-region, the provision of what is seen as competitively priced commercial land will inevitably result in reduced land efficiencies.

6.4.6. POTENTIAL COSTS OF CONSOLIDATED ACTIVITY

As stated the market is an efficient allocator of scarce resources. Market indicators such as price typically channel these resources based on demand and relative value. The recognition of social benefits over and above these, and any subsequent intervention, has the potential to influence these indicators and lead to inefficiencies.

Intervention into the 'free' operation of the market in the form of District Plan Changes may result in:

1. The retention or increase in the price of business land
2. Congestion leading to reduced accessibility and therefore a 'crowing out' benefits outlined
3. Potential exclusion of some development models
4. Reduced flexibility in centres that previously had more permissive standards
5. Increase in the cost of business operation

The provision of cheap land for business use has long been the basis for the decentralisation of activity. The priority of land costs in business location decisions is most commonly held by low profile businesses that do not rely on the presence of other business activity to support the viability of their business. However, as previously stated, these businesses themselves create a profile that inevitably changes the relative 'attractiveness' of locations for other businesses. This in turn has a significant impact on all the benefits previously identified.

The simple point here is the provision of cheap land can create a competitive advantage for a local area, however this is a short term benefit that is typically outweighed by the reduction in amenity achieved by other businesses and therefore a 'roll-on' decentralising effect. The market does not consider these dis-benefits and therefore the price of this land for these businesses is not a true representation of its cost, thus leading to inefficient resource use.

Accessibility is a key factor in the level and existence of the benefits attributable to business agglomeration. Without this these benefits will be significantly reduced. It is fundamental that capacity of the existing network is maintained. However, this is unlikely to be an issue for Future Proof sub-region as the congestion of activity (land, traffic, people) will not occur given its foreseeable future.

Over the past 15 years there has been a proliferation of development models fundamentally structured so as to compete by utilising their 'destination' status and therefore avail themselves of resources with reduced competition. Development of retail and office blocks out-of-centre are feasible where businesses do not require the benefits of existing centres and in fact thrive on the redirection of centre activity. These developments are at the forefront of community dis-enablement as they create greater costs than they generally provide. There is no reason to suggest that these development models will not operate successfully in competition with others.

The potential increase in business costs relate primarily to rents. This also occurs in a ‘free’ market where the agglomeration benefits outlined are recognised and realised by the market and considered in their locational decisions. These increases are general a market reaction to the increases in productivity achieved.

However, as previously discussed, these benefits are not always recognised and as such their value is reduced in the market leading to a spiralling fall. Without intervention into the market through the proposed changes there would be no corresponding increase in production to outweigh the potentially higher rent levels. Overall the potential to increase business costs is more than meet through the increased density while additional economic benefits accrue to the community as a whole.

7. ECONOMIC IMPACTS OF OVERSUPPLY

These impacts have the potential to take the form of land, infrastructure and production inefficiencies as well as adversely impacting upon the land market itself. Potential economic impacts include:

Inappropriate Land Prices

A key concern of the oversupply of land (particularly industrial and residential land) is a significant fall in land prices. While improving competition at a wider level this impact has the potential to result in:

- *Reduction in the level of productive land*: Appropriate land values operate as an incentive for the efficient utilisation of the land resource. Economies that exhibit particular low relative land values often suffer from inefficient land use as holding costs are low. This reduces land productivities and in turn impacts upon the economy's cost of business. This can result in land banking as land owners are unwilling to offer more productive (and suitable) land areas at lower prices.

- *Reduced redevelopment*: As stated above there has been a significant shift in the composition of industrial activity within the Future Proof sub-region. This change results in the fall in demand for specific premises (e.g. Factory space). The potential oversupply of industrial land and subsequent low prices essentially render redevelopment of existing industrial sites for other industrial activities unviable as these activities are more easily and affordably developed on vacant land.

- *Investment uncertainty*: The oversupply of industrial land and associated disincentive to redevelop significantly reduces the market's willingness to invest in long term capital developments. This is due to the fact that significant capital investments do not represent sound long term investments as productivity levels fall so too do rents and the potential to maintain quality premises.

- *Attraction of transitory business*: While lowly priced industrial land has the ability to attract certain businesses, these businesses are historically dominated by transitory businesses that prioritise price in the short term. The resulting lack of investment and balance in the economy has resulted in a significant reduction in the long term competitiveness of economies.

- *Under-capitalisation*: low land prices and the businesses attracted by them often lead to low quality built form which not only reduces flexibility for changing activities but also impacts upon the overall industry amenity levels.

Lack of Critical Mass

Although the Future Proof Strategy seeks to avoid the unnecessary dispersal of activity, it still has the potential to disperse the potential demand for land over a significantly larger area than would otherwise be required, potentially reducing the benefits of these activities locating close to other existing activities. To maximise the benefits, through minimal dispersal of activity, relies heavily on Future Proof's first guiding principle of effective governance, leadership and implementation being administered appropriately in the market. It also shows other guiding principles on more sustainable infrastructure, resources, and diverse / thriving centres remain '*on point*' in relation to delivering a better economic future for the Future Proof partner areas.

The absence of this critical mass can lead to adverse economic effects such as:

- *Low amenity*: The provision of appropriate amenities (such as quality built form, associated business facilities, and open space) and the efficient provision of support services requires businesses to be located close to one another so that a number of them can draw from those services and amenities. Continued expansion would develop activities with decreased densities (i.e. with businesses further spread out) which reduces the efficient provision of the amenities and services in the area.

- *Failure to capture agglomeration benefits*: The concept behind agglomeration benefits is directly related to effective densities, these densities impact upon the level and realisation of agglomeration benefits. Spreading potential growth over an area significantly greater than that required is likely to have a proportionate impact on these benefits.

8. SUMMARY

Due to the fact that the potential losses to the community of allowing continued decentralisation are so great, in this environment, and the likely risks to the economy of proposed commercial changes are so limited, it is entirely prudent to assume a proactive stance on this issue through retention of Future Proof guiding principles. There is an important balance to be maintained between protecting community benefits and potentially stifling positive market growth in all Future Proof Partner long term planning documents and strategies.

While the integrated Future Proof approach (through its principles) to resource and infrastructure management sought in the strategy is to be applauded, the risk of 'oversupplying'[2] the market still exists which would lead to inefficiencies relating to the existing provision of this capacity. Increasing supply unnecessarily presents the opportunity to the market to divert significant levels of demand from existing, and serviced, capacity, thereby increasing the marginal servicing costs and its competitiveness in the wider market.

It is essential to consider this balance due not only to the obvious potential costs to growth of undersupplying land for development but also because of the significant potential impacts of oversupplying land. These impacts have the potential to take the form of land, infrastructure and production inefficiencies as well as adversely impacting upon the land market itself. Potential economic impacts include:

- Disjointed industrial development;
- High marginal development and servicing costs;
- Underutilised infrastructure;
- Failure to capture agglomeration benefits;
- Inappropriate land prices;
- Reduction in the level of productive land;
- Investment uncertainty through low relative demand and price fluctuations;
- Reduced redevelopment (reduction in redevelopment of existing floorspace to new uses;
- Attraction of transitory business (price driven industry that is likely to prioritise land price for a small period of time);
- Low amenity through decreased densities;
- Duplication of infrastructure; and
- Low economies of scale for infrastructure leading to poor quality.

The economic principles on which the original Future Proof Strategy are based remain valid and appropriate for the current environment, and potentially more so. The Future Proof Strategy is only starting to '*bed down*'. The Strategy needs to continue to be implemented and shape land use development, growth and settlement patterns over the next 20 years. The economic risks

[2] Note when considering land supply, Future Proof now must be mindful of the National Policy Statement on Urban Development Capacity requirements to have a certain amount of feasible capacity available. As such, Future Proof will now have to work within the NPS UDC framework when assessing appropriate land supply.

(and lost economic opportunity, productivity and efficiency) from dispersal of activity over the last 20 years or so will likely take an equal amount of time to rectify.

The economic foundation stones of Future Proof (its guiding principles) also place the sub-region in a stronger position to create competitive business and residential environments, important to '*tapping into*' the market opportunities heightened demand in Auckland is likely to make available to Future Proof in the future.