

explanation of the strategic direction: policies and methods

This section explains a number of general strategic or policy responses to key matters such as population growth, City form, and protection of amenity. It places individual policies in this context and shows how they combine together as an integrated whole, in response to the significant resource management issues facing the City. A full explanation of some policies and methods in Part 6 is not possible without setting out this general strategic direction taken by the City.

6.1 GENERAL THEMES

There are a number of general themes that underpin the policies and methods adopted by Waitakere City Council. These are set out in this section as a preliminary to considering the detailed explanations of policies and methods.

The two central themes are consolidation of the urban area and the development of the Green Network. These themes work hand-in-hand and are the central policies in the District Plan's approach to avoiding, remedying or mitigating the adverse effects of urban development on the environment. The Plan requires that intensive development be consolidated within the urban area so as to avoid significant adverse effects on the environment from the spread of urban activities. Consolidation will also help promote land use patterns that will reduce people's dependency on the motor car, thereby reducing the effects of motor vehicles on the environment. The Green Network seeks to protect and restore the life supporting capacity of the environment and to maintain and protect the valued landscapes of the City.



6.1.1 Theme One: Urban Consolidation & Managing Growth Pressures

In 2001, Waitakere City was the fifth largest City in New Zealand. The City's population grew from approximately 10,000 in 1920 to 168,750 in 2001. In the 10 years between 1991 and 2001 the population of the "edge cities" of Waitakere, North Shore and Manukau grew faster than the central isthmus area, a 24% growth rate compared with 20%. Between 1996 and 2003, Waitakere City experienced an estimated 15% growth rate.

Statistics New Zealand estimates that an extra 61,000 people could be added to the area over the next 20 years. 65% of this growth would come from natural increase rather than migration into the area. However, household formation trends which suggest that demand for the traditional three bedroom house is changing. There is a trend towards smaller household sizes with consequent demand for housing increasing at a faster rate than population growth. In the edge cities of the Auckland region, the number of dwellings rose by 11.4%, compared with 8.6% in the isthmus, between 1996 and 2001.

The composition of households is also changing, with more single person and single parent households being established. In addition, because of the ageing population and economic factors, the number of new first home buyers is declining. Most households over the next 20 years will be formed from families and people in middle or older age groups. In general terms, people in the 36-60 and 60+ age groups have greater financial independence than first home buyers, which gives them greater housing choice. Access to amenities and the character of an area are likely to be as important as affordability, and established residential areas may be a more favoured choice for these groups.

The traditional housing model of a three bedroom house with gardens and lawns may no longer be suitable for these types of households. The economic environment also suggests a move away from "greenfields" developments for first home buyers.

One of the significant issues facing Waitakere City is its ongoing perception as a dormitory suburb. At the present time, the rate of population growth is outstripping the creation of local employment

within the city. There is an identified lack of suitable employment land within the city. This means that there has been an increase in the numbers of workforce leaving the city for employment. In order to consolidate the city and stem the flow, there is the need to provide additional employment land in and around town centres. This will have the benefit of aiding urban consolidation reducing air and water pollution and regional congestion from commuters.

These factors suggest that demand for the accommodation of population growth on the edge of the City may be changing. In any case population growth, if it continues to be accommodated through the outward spread of the urban area, will bring adverse effects on:

- water quality, land and bush in vulnerable areas including the Waitakere Ranges;
- potential for flooding in the foothills and Urban area if increased settlement in the upper catchments takes place;
- outstanding landscapes and the amenity values and neighbourhood character of the foothills, coastal and countryside areas.

The traditional form of low density peripheral urban growth, dominated by residential activity, also brings adverse impacts on the amenity values and neighbourhood character through social isolation, increased journey to work trip lengths and increased traffic generation.

In developing an effective response to these pressures, the following factors must be considered:

Environmental Thresholds

The likely capacity of the Green Network and non-urban Environments to absorb further growth without harm, either to natural and physical resources, or to natural processes, outstanding landscapes and amenity values, is an issue.

Past decisions about investment in infrastructure, and adoption of a strategy to consolidate further growth within the existing urban area, have already had the effect of limiting settlement outside the existing reticulated drainage system. However, these constraints have been identified in a number of areas as insufficient to prevent damage to natural resources. Within the bush covered Waitakere Ranges and the coastal areas, even the currently limited densities create adverse effects. Resulting effects from weed escape,

pests, and fragmentation of bush have been identified in previous sections.

In the foothills there has been on-going pressure for development. Landowners recognise that the area occupies an important position between the urban area and the Waitakere Ranges. Although there is no wish to see the area develop to a point that it becomes intensively settled and urbanised, limiting densities on the basis of protecting traditional rural activities is less appropriate, when considering the future of the area, given the unsuitability of some of the land for farming and horticulture. Reconciling these pressures with the need to protect the Waitakere Ranges as well as the quality of the foothills environment itself, is a key challenge for the community. These areas are not generally required to accommodate city growth and will not be utilised for that prime purpose.

Thresholds in terms of particular aspects of the environment are dealt with in the objectives, policies and methods - see, for example, Policies 1.1, 2.1, 3.1, 5.4, 9.1 and 9.9. The threshold set by those objectives, policies and methods, and the rules which follow from them, recognise that there may be justification for some development, but within strict limits which recognise the potential for adverse effects, including cumulative effects, on finite natural resources. It cannot be assumed that the maximum development possibilities under the rules thresholds can necessarily be achieved. Development possibilities will be the subject of assessment through the consent process to ensure that there are no more than minor adverse effects, having particular regard to landscape quality, ecological systems, land stability and the effects of stormwater disposal.

Wherever possible, encouragement will be given to the entire subdivision of a site to be considered at one time only. This will provide most certainty regarding the effects of subdivision. However, where subdivision is to be proposed in stages, it will be important to show in concept how the balance of the site can be subdivided in accordance with District Plan Policy and provisions.

To the north, the question of density primarily relates to the issue of impacts on the quality of the Upper Harbour and the City's higher quality soils, rural character, the ability of the area to be serviced by infrastructure and the future development of Whenuapai.

For these reasons, and to meet the requirements and agreements relating to regional growth strategies, emphasis will be placed on the intensification of development within the Metropolitan Limits existing at 2004.

Within the urban area, investment in infrastructure has allowed settlement to pass the thresholds that would normally exist in relation to natural and physical resources. The only constraints on further intensification are those set by the capacity of the current infrastructure, the willingness of the community to continue to invest in its expansion, and decisions to limit intensification in some areas because of unacceptable effects on landscape, significant natural areas and amenity values.

Where there are issues these can be addressed by concept planning. At the strategic level this involves a focus on intensification around the major town centres (New Lynn, Henderson and Massey North/Westgate) with a secondary emphasis on other town centres and regional road routes. Peripheral urban growth will be provided for but of a type which, through minimum density, mixed use and other management controls will ensure the efficient utilisation of resources.

Possible Urban Growth Areas

Growth areas will be limited to those necessary to achieve a 78/17% split of peripheral growth versus intensification of growth development. Babich, Massey North/Westgate, the Hobsonville Village Centre, and the former Hobsonville Airbase have been identified as areas where intensive settlement can occur with the least impact on natural and physical resources and amenity values, are essential preliminary tasks before considering any urban expansion.

Urban Form

The degree to which the existing urban area can be managed in a way that provides a high level of amenity and more housing as a way of reducing pressures for outward growth, is a key to managing population pressures.

A characteristic of traditional low-density suburbs is a predominance of three bedroom housing and the limited availability of one and two bedroom houses. It is likely that the demand for smaller housing types will further increase in the



future, and this is a trend that should be reinforced. It is important to ensure that resource management policies do not unnecessarily restrict housing choice, and that rules are focused on adverse environmental effects so that the maximum degree of choice is afforded to developers and buyers.

Impacts on Amenity Values

Identifying any constraints on intensification in the existing residential areas, and finding effective ways to manage any impacts are also necessary aspects of the management of pressures on the natural and physical environment.

Some parts of the City are subject to infill housing pressures. Increased infill in these areas is unlikely to achieve densities that will contribute to reduced fossil fuel use and greater energy efficiencies, although infill housing does reduce pressure for housing on the edge of the urban area. Any limit on density in some areas as a way of protecting amenity reduces the City's ability to absorb population growth. While this trade-off may be acceptable, there are impacts on the current community in terms of the availability of new housing and housing costs. In response to these concerns, the District Plan contains a range of policies and methods that, cumulatively, limit the outward spread of the urban area and consolidate growth within it. This intensification strategy is a key response to the need to protect the City's waterways and soils which are not already built over, to avoid pressures on vulnerable native resources, ecosystems and air quality, to preserve the natural character of coastal areas, to protect the City's outstanding landscapes, and ensure efficient use of land and energy. This policy direction also has the benefit of ensuring more efficient use of infrastructure and avoiding further investment in expensive, unsustainable systems.

The policies that together comprise this intensification strategy can be divided into four types:

- those that limit settlement outside the urban area to varying degrees;
- those that provide for some intensification on the periphery of the City;
- those that accommodate intensification within the urban area; and,
- those that counter pressures from within the urban area for a spread City.

The consolidation of population and household growth means considerable change for a City that has experienced the continued spread of the urban edge and the provision of low-density suburbs since the 1940s. The effects of consolidation and intensification within the existing area require careful management to achieve an environment of the highest possible quality. Consolidation without this careful management and attention to the quality of the environment created, has the potential, not only to undermine the amenity of urban life, but also to increase pressure for expansion elsewhere in the region as residents move in search of a better quality environment.

Babich Urban Concept Plan

The *Babich Urban Concept Plan* is located in an area of the City known as Sturges, approximately 2.5km west of the Henderson Town Centre. It was incorporated within the Metropolitan Urban Limit in August 2005, in line with the strategic growth management strategy for Waitakere City, as encapsulated in the Northern and Western Sector Agreement. The *Babich Urban Concept Plan* provides for a mix of residential densities with some areas identified for conventional residential development and other areas requiring larger sites for land stability and stream protection purposes.

There is a strong 'Stream Protection' focus in the design of the *Babich Urban Concept Plan*, in recognition of the important ecological and amenity values of the Paremuka Stream and its tributaries. The Paremuka Stream is the key Green Network feature of the area, with significant investment over a number of years in protecting and enhancing this stream and providing pedestrian links along the stream in extensive esplanade reserves on either bank. The majority of the Paremuka tributaries remaining in the catchment are located within the *Babich Urban Concept Plan* area, and studies have identified that these tributaries have locally significant aquatic habitat values. Additionally they are a significant contributor to local amenity and landscape values. All major tributaries are earmarked for retention and enhancement, and a 50m esplanade reserve should continue through the *Babich Urban Concept Plan*. Additionally, active restoration and revegetation of stream margins should accompany any development in the area.

Large lot urban residential development is appropriate in those parts of the *Babich Urban Concept Plan* area identified as having stability issues, in order to address both stability matters and to ensure that the adjacent tributaries are protected from erosion and other adverse effects associated with intensification. Other areas are available for conventional residential development.

The *Babich Urban Concept Plan* area has been used for a range of rural activities in the past, including viticulture, agriculture and horticulture. As a consequence of these activities, a number of places are contaminated with chemicals, and these must be remediated to an acceptable standard before the construction of any dwelling can occur.

Stormwater management for the area incorporates measures to protect the tributaries, as well as providing protection from flooding for dwellings. Additionally, sediment management at the time of development must also address issues of soil contamination.

Two ‘Special Areas’ are included within the *Babich Urban Concept Plan* boundary - The *Auckland Outdoor Health Club Special Area* and the *Babich Winery Special Area*. These Special Areas provide for the continued operation of their existing activities within the urban area as well as, in the *Babich Winery Special Area*, recognising that intensification may happen in the future. So long as the *Babich Winery Special Area* continues to be used for its existing activities, the future development of adjacent sites will be subject to provisions designed to protect existing activities within the *Babich Winery Special Area*. Any future development of these Special Areas, and any other part of the catchment, will have to follow the ‘Stream Protection’ focus adopted for development within the *Babich Urban Concept Plan* and in particular is expected to provide for the continuation of the 50m esplanade reserve along the Paremuka Stream. In the *Babich Winery Special Area*, future intensification is provided for through the ability to develop a comprehensive development plan which will ensure that new development is well integrated with existing development, the rest of the Special Area, and the provisions of the *Babich Urban Concept Plan*. This comprehensive development plan must also address a range of relevant issues, including contaminated soils, protection of native ecosystems, landscape and amenity, provision of

reserves and the transport network including pedestrian and cycle links.

A number of transport features are shown on the *Babich Urban Concept Plan* map. Some of these are indicative only, but other key roading features that will be needed are also shown. These are:

- A link to Greenbury Drive;
- A connection along or near the line of Tasman Avenue through to Lake Panorama Drive;
- Two new road entries on each of Metcalfe and Simpson Roads, (unless more detailed consideration at the time of subdivision establishes that one entry on one or both roads is sufficient);
- A pedestrian/bicycle bridge over the Paremuka Stream in the vicinity of Chelmsley Avenue.

Other roads shown (aside from existing) are indicative only. However, they represent a number of features that will be pursued where possible. In particular, the location of roads alongside reserve and stream areas, and the provision of high levels of internal connectivity within the *Babich Urban Concept Plan* area.

Birdwood Area

The ‘Birdwood Area’ includes the Birdwood Structure Plan area, the Birdwood Special Area, generally west of Don Buck Road and east of Chamberlain Road.

The majority of the Birdwood Area has long been identified as an area for urban development, but urban services have not been provided. During the preparation of the District Plan, the suitability of the Birdwood Area to accommodate urban activities was reassessed. It is apparent that because of landscape, stability and stormwater issues, it would be inappropriate to develop all of the area into urban densities.

It is the intent of the Proposed District Plan (Decision Notice 61) that a “Concept Planning” process be undertaken for the Birdwood area. The concept plan will identify the carrying capacity of the area and seek to maintain the landscape values, minimise landform modification and retain natural resources.



Birdwood Structure Plan Area

The Birdwood Structure Plan area is bounded by Sunnyvale Road and Redhills Road and contains land generally west of Chamberlain Road to the end of Mudgeways Road.

A structure planning process has been completed for the Birdwood Structure Plan Area. This process included the investigation of:

- Landscape values of the area;
- Ecological values;
- Water quality and quantity issues;
- Stability problems;
- Archaeological and heritage features;
- Roading and accessibility issues.

The Structure Plan has been developed in consultation with landowners and other interested parties and will form the basis of future subdivision and land development in the Birdwood Structure Plan area. The Structure Plan identifies a density of subdivision development specific to each site. This density reflects the development potential of Birdwood Structure Plan area that was determined based on the information available at the time of preparation. For the Birdwood Structure Plan area, the key resource management issues identified include land stability, protection of rural landscape character and avoidance of downstream flooding.

In addition to enabling subdivision, the Birdwood Structure Plan also seeks to achieve a greater level of environmental protection within the structure plan area. In this regard areas of bush protection and stream enhancement have been identified on the Birdwood Structure Plan Map. It is desirable that ecological stream corridors be protected and enhanced and that native vegetation is encouraged to regenerate.

Birdwood Special Area

The Birdwood Special Area is located west of Don Buck Road and south east of Chamberlain Road. This area, with access from Don Buck Road lends itself to urban type activities. Wastewater could be provided from Don Buck Road or from an extension of the sewerage network up Chamberlain Road. The key issues are the need to retain native bush, extend the reserve network in the area and integrate the area into the surrounding urban environment. Changes to the landform need to be minimised, and it will be necessary to retain stormwater runoff as much as possible before it

reaches the Swanson Stream. Down stream stormwater treatment and detention will also be necessary. It will also be necessary to ensure that development relates well to Don Buck Road area.

Birdwood Urban Concept Plan Area

The *Birdwood Urban Concept Plan* area is located west of Don Buck Road and south east of Chamberlain Road. This area, with access from Don Buck Road, is closely linked to the suburban area of Massey to the east and is within the Auckland Metropolitan Urban Limits. The *Birdwood Urban Concept Plan* provides for urban subdivision and development subject to natural and physical constraints. The issues that need to be addressed include:-

- avoiding development on unstable land;
- carefully managing increased stormwater runoff, which has the potential to cause downstream flooding and stream erosion;
- recognising the capacity constraints of the existing reticulated wastewater and stormwater services; and
- the need to retain natural features such as native bush and the natural character of the Chamberlain Stream.

In addition, the Concept Plan seeks to extend the existing reserve network and public access from Te Rangi Hiroa Reserve through to Don Buck Road and Massey High School, and to integrate the area into the surrounding urban environment.

The *Birdwood Urban Concept Plan* identifies two different densities of residential development. These densities reflect the existing constraints and topography within the *Birdwood Urban Concept Plan* area. The most intensive area of residential development (Living 2 - minimum net site area - 450m²) is located south of Chamberlain Road, west of the existing houses fronting Don Buck Road and in the northern part of the Concept Plan area above Chamberlain Road. Based on the geotechnical assessment, this land has been identified as the most suitable for standard residential development, although it will require detailed geotechnical investigation at the time of subdivision. Less intensive residential development (minimum average site area - 2000m² and minimum site area 1250m² - Living 4) is provided for in the remainder of the Concept Plan area. These are areas where land

stability and stormwater runoff are the most significant constraints. They are also areas that have the steepest topography and which contain the most significant vegetation and potential enhancement and restoration areas. It is unlikely that the area identified as Living 4 will be provided with conventional reticulated stormwater. Therefore, careful management of stormwater in these areas is critical.

The stormwater study undertaken for the *Birdwood Urban Concept Plan* area has identified potential for stream erosion from new development to be the most significant constraint. This study has determined that in order to maintain stormwater volumes to pre-development levels, the maximum area of impermeable surface for the area identified as Living 4 on the Concept Plan map should be 20%. For this reason the subdivision rules are based on 'site area; so that consideration can be given to the full extent of likely development within a site including impermeable surfaces. The impermeable surface rules that apply to the area identified as Living 4 on the *Birdwood Urban Concept Plan* map are restricted to a maximum of 20% of the total 'site area' including any driveways or accessways.

The *Birdwood Urban Concept Plan* identifies key road linkages. The most significant road linkage is between Don Buck Road in the southern part of the Concept Plan area and Chamberlain Road in the north. It is expected that a road linkage will also be provided from the northern part of the Concept Plan south to Chamberlain Road as shown on the Concept Plan map. Whilst the most appropriate location for these roads should be determined at the time of subdivision, having regard to matters such as land stability and traffic safety, it is expected that efficient use of the road will be made by maximising development on both sides. Given the level of development that will occur within the *Birdwood Urban Concept Plan* area it is considered desirable in terms of traffic movement and safety, to ensure that good connections are provided between key roads rather than ad hoc access from Don Buck Road. It is expected that subdivision design of new sites will have regard to how these connections through the Concept Plan area can best be achieved. In terms of pedestrian linkages, opportunities exist to connect existing reserve areas to new development in the Concept Plan area and with Don Buck Primary School and Massey High School. A plan showing

possible future pedestrian walkway connections can be obtained from Council.

Don Buck Road

This area, with access from Don Buck Road, lends itself to urban type activities. Wastewater could be provided from Don Buck Road or from an extension of the sewerage network up Chamberlain Road. The key issues are the need to retain native bush, extend the reserve network in the area and integrate the area into the surrounding urban environment. Changes to the landform need to be minimised, and it will be necessary to retain stormwater runoff on-site or within the area as much as possible before it reaches the Swanson stream. Downstream stormwater treatment and detention will also be necessary. It will be necessary to ensure that development relates well to the Don Buck Road area.

Generally East of Birdwood Road

This area is suitable for lifestyle rural/residential activities. Urban services are unlikely to be provided. On-site stormwater retention and wastewater treatment will be necessary. Key issues are the need to retain and extend native bush and to avoid landscape modification so that houses and development can blend into the landscape. Riparian management is necessary to protect water quality.

Cluster type housing developments may be appropriate where satisfactory methods of stormwater and wastewater disposal are proposed.

Generally West of Birdwood Road

This land is generally steeper with more of a rural character than other parts of the Special Area. It also contains a significant proportion of the upper reaches of the Momutu Stream and it is therefore important to limit development to reduce stormwater generation. The area lends itself to rural/residential style development where development is sited to minimise stormwater runoff and landform modification and to maintain the more rural style character. Native bush cover should be extended. On-site wastewater treatment is necessary.

Penihana North

The *Penihana North land* is located at Swanson, to the south of the railway line and between Christian Road and O'Neills Road. The southern boundary of the *Penihana North land* adjoins the *Penihana South*



Land, the *Foothills Environment* and the Waitakere Ranges Heritage Area. The urbanisation of *Penihana North* is anticipated by the Growth Management Strategy for Waitakere 2009 and Policy 0.9 of the *Plan*. It is an urban growth area recognised in the Auckland Regional Policy Statement.

It is expected that future residential *development* in that part of the 22.5 hectare *Penihana North* area closest to the Swanson railway station will achieve an overall net minimum density required for *medium density housing* as defined in the *Plan*. This is a specific outcome to be achieved through the *Living Environment (Penihana North)* provisions, and is a means of implementing the integration of regional land transport and land use provisions in the Auckland Regional Policy Statement (consistent with the Auckland Regional Growth Strategy). Policy 11.55 establishes a preference for the type of *medium density housing* to be predominantly detached townhouses and/or semi-detached duplex houses.

A range of conventional and larger residential *lots* are provided for in the *Living 2 Environment (Penihana North)* located in the southern part of the *Penihana North land* to provide a density transition to the Waitakere Ranges Heritage Area in accordance with Policy 0.1 of the *Plan*. *Medium density housing* is not provided for in the *Living 2 Environment (Penihana North)* and *subdivision* applications for *lots* should have a minimum size of 600m². A minimum *lot* size of 1200 m² is required in Area A illustrated on the *Penihana North Urban Concept Plan* to ensure a graduated intensity of urban development establishes adjoining the *Foothills Environment* to the south, diminishing the effect of built form and urban activities. Specific roadscape *designs* are required to Christian Road to acknowledge the rural *amenity* of this *road*.

Comprehensively designed *medium density housing* applications, containing a variety of housing types, will be subject to the detailed assessment criteria in the *Plan*. These include additional criteria in Design Element J that are specific to *Penihana North*.

Subdivision Design Criteria for *Penihana North* apply to *subdivision*, and where a land use consent application precedes *subdivision*, relevant matters will also apply to the assessment of that proposal. The design criteria require consideration to be given to design elements that expand upon the elements illustrated in the *Penihana North Urban Concept Plan*, having a focus on “movement networks”, “block

size and lot type”, “design of roads” and “design of reserves”.

The majority of the *land* within *Penihana North* has been used in the past for *rural activities*, more recently as a ‘kiwifruit’ orchard with shelter belt plantings, now discontinued, Overall the *land* has been identified as suitable for residential urban activities. Geotechnical investigations have shown that there are no stability issues.

The southern boundary of *Penihana North* partly abuts the tributary of the Waimoko Stream (adjoining O’Neills Road) which is joined by the Blewitt Gully Stream. In this area the *Penihana North Urban Concept Plan* provides for protection of the riparian margin through identification of an *open space* area for drainage, ecological and recreation purposes. The greater length of the Blewitt Gully Stream to the south lies outside of *Penihana North*.

Another identified natural feature is a *Managed Natural Area* alongside Christian Road. *Subdivision* should avoid development occurring within this area, which will assist to create a robust urban boundary.

Stormwater discharge consents will be required prior to *subdivision* taking place, as will the management of sediment runoff. An indicative location for an ‘off line’ stormwater treatment and disposal system is shown on the *Urban Concept Plan*. Low-impact design techniques are encouraged in the design of *subdivision* and *development* within *Penihana North*.

The indicative ‘primary’ and secondary *neighbourhood reserves* are located in positions that are easily accessible and available as a focal point for residents. These *reserves* will form part of a network of pedestrian linkages that includes direct access to the Swanson railway station from *Penihana North* via a key pedestrian linkage which is to be established in the rail corridor and join the over-bridge access between the two rail platforms. The specific alignment of the pedestrian linkages will form part of future *subdivision* or *development* applications and will be designed to have good connectivity and visibility.

A new east-west primary *road* link is provided for in the *Penihana North Urban Concept Plan* between Christian Road and O’Neills Road. This will give primary access to secondary *roads*, and individual site access. *Subdivision* and *development* is to be designed to achieve high levels of *road* connectivity.

6.1.2 Theme Two: City Form

After World War II, the increasing rate of urbanisation in New Zealand and the growth in population of the Auckland Region had a great impact on Waitakere City. Auckland City, which was the focus of most migration into the region until that time, could not accommodate population pressures within its own boundaries, and the population spread westward, northward and southward. To the developers and local authorities at the time, it seemed that there were no constraints on growth - with extensive areas of vacant land and pasture being apparently suitable for development.

Servicing presented no problems and the opening of the north-western motorway in 1955 created easy access to many areas of west Auckland. A 30 year period of intensive residential development and population growth followed, which left a lasting legacy for the Waitakere environment.

Te Atatu experienced rapid growth in the late 1950s and early 1960s. Kelston underwent similar growth in the 1960s, Massey in the 1970s, Ranui in the 1980s, West Harbour/ Hobsonville in the 1990s, and Sturges in the 1990's and early 2000's. From the mid 1990's there has been the beginning of a trend to medium density and apartment density housing, notably in the New Lynn area, but also around Henderson and other town centres and on main roads.

The urban pattern that resulted from the initial burst of urban development in the 1950s, 1960s and 1970s includes the following:

- (a) the urbanisation of the eastern part of Waitakere City as an 'edge' City, dependent in large part on people being employed elsewhere in the region. Although the original small villages developed into local service centres the surrounding areas became 'commuter suburbs' - primarily residential in nature. Industrial and commercial activities were required to locate separately;
- (b) the creation of a low density urban area, relatively low land costs, the rapid spread of new housing from the late 1940s, and heavy investment by the State in housing in the 1950s and 1960s has resulted in characteristic low

density suburbs that are highly valued by many residents, particularly residents with young children. The high investment costs in infrastructure associated with this low density urban form were accepted as a legitimate cost of development. The maintenance and associated environmental costs were absorbed by the community;

- (c) the dominance of three bedroom detached housing designed primarily for families consisting of adults and dependent children. The heavy investment in the family and family housing by the state over the thirty-five years from the Second World War resulted in a good quality housing stock, and particularly those houses built between the 1940s and the 1960s. However, one other result was that few alternative housing types were built. This was reinforced by a town planning system that treated other kinds of housing as an exception to the rule - requiring them to be located away from the main residential areas, or requiring them to pass through stringent planning assessments. The result is a limited housing choice - in terms of design or location - for older people, for single person households and for larger extended households;
- (d) the dominance of a curvilinear street pattern and a strong roading hierarchy. Initially, the older parts of the urban area developed around a grid street pattern and this is most obvious in New Lynn. However from the 1920s, the garden city/suburb movement put great emphasis on curvilinear streets, and this was adopted by planners and developers from the 1940s. It was further refined into a hierarchy of roads that tried to direct traffic away from residential areas. The newer residential areas in the City have relatively few through streets. The result is a lengthening of car trips in order to gain access to services outside these areas, and the discouragement of walking and cycling, again because of the long travel distances. The Plan seeks to have a more connected street pattern than has been the case in the recent past. The design of street patterns and the balance between cul-de-sacs and connections needs to take into account the location of activities such as schools, reserves, shops, workplaces and public transport routes. The existence of steep topography, a desire to retain the natural character of streams and bush areas



will be factors in which cul-de-sacs may be appropriate. Cul-de-sacs may also be appropriate where they do not significantly increase trip length and where an interconnected street pattern is maintained.

- (e) heavy investment in infrastructure and pressure to add to the networked systems on the edge of the urban area without co-ordinated forward planning. These networked systems were adopted at the time as the best possible means to provide services and manage waste. The absence of alternative local community or on-site systems is a characteristic of the urban area.
- (f) heavy reliance on motor vehicles. Table 6.1.2(a) compares different modes of travel for Waitakere City residents based on 1991 Census data.

Work Place	Vehicle	Cycling or Walking
Central Auckland	85%	3.2%
New Lynn	83.2%	5.4%
Henderson	78.9%	6.4%

Source: Supermap

Table 6.1.2(a)

Of those travelling to central Auckland by vehicle, 21% used the passenger transport system. Only 8.2% and 3.7% travelled by passenger transport to New Lynn and Henderson respectively.

To a degree, the design of the City's suburbs has forced people to use cars in order to reach services and work. Access to employment opportunities is limited, with the City as a whole providing a work place for about 50% of its total workforce. Within the City, employment is concentrated in Henderson, New Lynn and Lincoln Road which means for people who live in the outer areas, travel to work is likely to involve a car trip.

Traditional investment of public moneys (through taxes and rates) in infrastructure has also supported car use. Investment in roading absorbed 18% of Council's rates expenditure in the 1994-1995 financial year. This expenditure is dictated by two concerns - ensuring access to different parts of the City and ensuring that roads are capable of handling the amount of traffic moving on them, either in terms of safety or of efficient traffic flows.

In relative terms, investment in passenger transport systems is low and is caught in the dilemma between investing as a response to

demand, and investing in passenger transport to encourage use of alternatives to car travel. Between 1986 and 1991, bus patronage almost halved and at the same time traffic volumes in Waitakere City increased at 3% per year. Some arterial roads have experienced a 7% annual increase in traffic over the last few years. If these trends continue, total traffic volumes in the City could double over the next 20 years. The failure to pass on the true environmental costs of vehicle use to road users has also contributed to vehicle use.

In the last decade, a number of changes have emerged which reinforce the unsustainable nature of this City form. These developments are:

- (i) The relocation of some employment and business activities away from traditional town centres, into areas where there is accessible land capable of accommodating large stores or businesses (larger than those normally found in the core areas of the town centres). A further factor has been the growth of population and demand for more retail facilities than can be accommodated within existing centres. One consequence has been the pressure for development of major retail facilities and other services out of the existing centres. The growth strategy emphasis upon providing for growth and intensification around centres and corridors seeks to manage this demand for increased facilities in a carefully planned manner integrated with transport planning. This has occurred around Lincoln Road where there has been considerable pressure to expand this area as a retail and employment centre. If the relocation of retail facilities was allowed to occur in a less controlled manner it could encourage more dispersed and longer vehicle trips as people travel across town to a number of areas, rather than carrying out their shopping within a relatively central area largely accessible by foot, or in the case of some corridors highly accessible by public transport or private vehicle.
- (ii) The centralisation of retail and employment activities traditionally supplied by corner dairies and local businesses in residential areas. This is also part of the general change mentioned above where retailers are seeking economies of scale that support the

provision of large scale retail services in areas that are highly accessible by car. A challenge to traditional urban form has come from the advent of home-occupations, which provide alternatives to the need to commute to other areas of the City, or the region. This has the potential to reduce car trips.

- (iii) The further decline of the employment within the city/resident workforce ratio. In 2003 the majority of the resident workforce was employed outside the City. This not only affects the economic health of the City, and the desirable balance of land use activity, but also results in traffic congestion and transport costs for residents.

The inherited settlement patterns and the lack of employment activity have been a cause of adverse effects on:

- air and water quality, through discharges of fossil fuels to the air and the runoff of contaminants from roads into waterways;
- amenity values from increased traffic noise, traffic congestion on major routes and general traffic movement;
- housing stock from demand for alternative kinds of housing - which results either in redevelopment of a site or alterations to buildings themselves;
- demand for land for roading on greenfields sites (approximately 12% of total land used in any development);
- amenity values and character of areas as roading capacities are reached;
- amenity values (accessibility) as suburbs and community areas are designed around vehicle use.

Development of effective responses has included consideration of:

- the ways settlement intensities and location might contribute to the increased viability of public transport;
- whether the nature, location and mix of activities (particularly retail activities), can assist in the reduction of the effects of fossil fuel use and on pressures for the outward spread of the urban area, and contribute to maintaining and enhancing the amenity of the urban area.
- ways that the maintenance and enhancement of amenity values at the town centre, town centre

periphery local and neighbourhood level can assist in the reduction in trips by private vehicle, and a reduction in the pressure for outward spread of the urban area, by providing for a high quality accessible local environment through concept planning, comprehensive development plans, and encouragement of intensive housing and land use developments;

- considering how roading systems might be designed to reduce car use and fossil fuel emissions, and achieve a high level of accessibility and amenity for all groups in the community.

Concerns about urban form centre on:

- reducing reliance on vehicle use in order to avoid the adverse impact of fossil fuels on air and water quality;
- managing the increased population pressures within the urban area to avoid adverse impacts on amenity, and in particular on neighbourhood character;
- managing the relationship between public space, roading networks, and private space and buildings to produce the highest level of urban environmental quality. This reduces pressure for the outward spread of the urban area and further intensification of settlement in the foothills, countryside and Waitakere Ranges, and consequent adverse effects on natural and physical resources and landscapes.

The approach that the District Plan has adopted is to integrate land use and transport planning by reinforcing the centralisation of key activities around existing town centres, (particularly New Lynn, Henderson and Massey North/Westgate) railway stations and transport centres and regional roads inside the Metropolitan Urban Limits. This centralisation strategy increases the viability of passenger transport and encourages walking. In promoting this strategy, the District Plan has chosen to counter certain trends towards the dispersal of activities, especially retail activities, and the outward expansion of the urban area. The retail centralisation strategy is essential to wider consolidation concerns.

In addition to this concentration of activities, the District Plan has also adopted the approach that there should be a greater mix of activities within the Living, Community and the Lincoln Road Working



Environments. At first glance, this appears to be in conflict with the concentration of activities around town centres and transport routes. However, the District Plan is concerned with a greater mixing of small scale activities that service local neighbourhoods or do not generate large numbers of vehicle trips. This mixing of local service and residential activity in particular, such as provision for home occupations and some small scale non-residential activities, encourages walking to local services within the neighbourhood and reduces car use.

A third general theme is the improvement of pedestrian linkages within the Community Environment and between different parts of the urban area. This includes improved design and integration of access within any new subdivision.

Thus the key focus of the various policies that form the City's urban form strategy, is to reduce adverse effects on water and air quality, and to protect and enhance the amenity of the urban area as a way of reducing pressure for a spread City.

6.1.3 Theme Three: The Green Network

The "Green Network" is a term used by Waitakere City Council to describe:

- the recognition of existing native vegetation and fauna habitat, streams, lakes, wetlands, the coastal area and other natural features such as landforms and soils. The Green Network describes the natural and physical framework of the City created by the remaining native resources;
- the management of the protection, restoration and regeneration of these natural resources to provide a comprehensive natural environment across the City. This includes protecting the habitat of native flora and native fauna themselves; to provide comprehensive systems, where appropriate, of public access through the City; and to make green spaces a basic part of the structure and pattern of local neighbourhood, as a way of reducing pressures for urban expansion and consequent adverse effects on surrounding areas.

The Green Network is structured around four layers. These are: a descriptive layer, a land-use management layer, a restoration layer and an asset

management layer. Figure 6.1.3(a) identifies these layers.

Green Network: descriptive layer.

This layer consists of all the various levels of information that have been gathered about the City's natural and physical resources. These are described in Part 3 and consist of:

- streams, lakes, rivers and wetlands;
- significant and outstanding native vegetation;
- significant and outstanding fauna habitat;
- the coastal environment where the natural character is largely intact;
- outstanding natural features and landforms;
- geopreservation sites and representative soils;
- restoration areas;
- ecological linkage opportunities

Green Network: land-use management layer.

This layer of the Green Network has a series of management areas which reflect the nature of resources found in the City, their importance and the need to provide an appropriate level of protection. The different management areas within this layer are:

- Riparian Margins Natural Area;
- Protected Natural Area;
- Managed Natural Area;
- Restoration Natural Area;
- Coastal Natural Area.

These Natural Areas form the basis for managing activities under the District Plan and are derived from the descriptive layer of the Green Network.

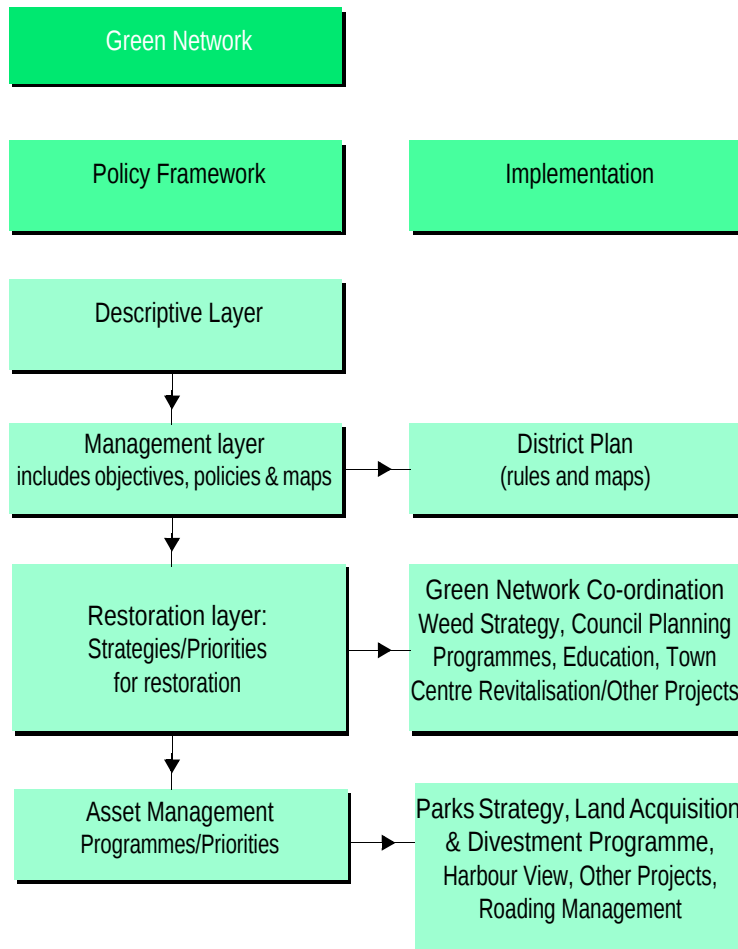


Table 6.1.3 (a)



DESCRIPTIVE LAYER	PROTECTED	COASTAL	RIPARIAN	MANAGED	RESTORATION
Coastal Environment	Where coastal intersects with outstanding vegetation/landforms	X			
Streams, lakes, rivers, coastal edge outside coastal environment			X		
Significant and outstanding native fauna habitat				X	
Significant native vegetation (10%-50%)					X
Significant native vegetation (50%+)				X	
Outstanding Vegetation	X				
Outstanding Natural Features: Landforms	X				

Table 6.1.3.(b)

Ecological Linkage Opportunities identify linkages between fragments of native vegetation which, if replanted, would improve the sustainability of those fragments and/or act as wildlife corridors. The relationship between the descriptive and landuse management layers of the Green Network are shown in Table 6.1.3(b). The match between the descriptive layer and the land management layer of the Green Network also reflects the level of protection that is considered necessary for each natural and physical resource, and the different combination of District Plan rules that have been developed in response to the pressure on each resource.

Waitakere City Council is also undertaking a programme to develop two further layers to the Green Network. The restoration layer of the Green Network relates to active restoration strategies using non-regulatory techniques, such as planting programmes, and reflects the priorities for restoration that apply in different parts of the City. The asset management layer is concerned with the active management of Council lands that lie within the Green Network. Therefore, the Green Network as a conceptual framework for the City and as a basis for ongoing Council programmes has the following components.

The landuse management layer of the Green Network which incorporates District Plan rules, is concerned with managing six activities which are considered to have the greatest impact on resources in the Network. These are: vegetation clearance, earthworks, impermeable surfaces, stock grazing, weeds, pests, and subdivision (densities and design).

In developing the District Plan response to pressures on the Green Network, two issues were considered:

- the level of management of activities necessary to ensure that further degradation of resources does not occur;
 - the level of management of activities to ensure that any impediment to the natural process of regeneration is avoided, mitigated or remedied.
- Management of effects on regeneration processes included consideration of:
- how areas of fragmented indigenous habitat might be linked in a way that provides for safe movement of species into new food sources;
 - whether there should be an active programme for restoration of threatened plant species or more common plant species types that have been lost from the City, or whether reliance should be placed on regeneration from the existing, more limited genetic stock of the City;

- whether particular areas should receive priority for protection and restoration of any linkages or genetic stock;
- ways that managed restoration and regeneration might be integrated with other concerns such as protection and enhancement of the amenity of the urban area, the provision of public access to waterways and the protection of the character and amenity of local neighbourhoods;
- the problem of weed escape in areas of vulnerable vegetation and fauna habitat.

In addition, the need to involve the community in protection and revegetation is recognised and is an integral part of the Green Network. Individual and community initiatives can provide a high degree of care for the environment and it is hoped that over time fostering a personal ethic of stewardship will reduce the need for regulation. The Council will actively support these initiatives through providing information and advice to people on how to restore and protect natural heritage. Economic instruments such as grants and rates relief will also be considered.

The possible devolution of responsibilities to the community, and support for individual and community initiatives which are compatible with the aims of the Green Network, are also important. The Council supports and seeks to work alongside groups that wish to adopt a park, stream or beach.

The Green Network is the framework by which the impacts of activities on both natural and physical resources, and on amenity values and landscapes are managed.

Low Impact Design

Low-impact design utilises natural systems and low-impact technologies at the planning, design and development phases to avoid or mitigate excessive environmental and social impacts. Key elements include working with nature to minimise impervious surfaces, utilising soils and vegetation to trap pollutants and reduce stormwater runoff, limiting earthworks, and maximising water and energy efficiency.

6.1.4 Theme Four: Landscape, Amenity Values & Neighbourhood

Part 3.6 identified a way of thinking about the City's environment that centres on its beauty, and the emotional and visual significance of different parts of the environment.

The City was divided into seven broad areas or landscapes on this basis. This was further developed to include concepts of local areas and neighbourhood. Local areas are further variations on landscapes, distinctive areas in the City which have a particular character which sets them apart from the surrounding area, but which nonetheless have certain general features that bind them to the wider landscapes. Neighbourhood is the expression of these landscapes and local areas in relation to the immediately surrounding area - to which a person has a particular sense of belonging and place. It is the most localised, personal and intense expression of the relationship of people with their environment.

The Resource Management Act requires that the City's outstanding landscapes are protected and that particular regard be given to the protection and enhancement of amenity values. These amenity values are the particular natural and physical characteristics that contribute to people's enjoyment of an area. Part 3.6 identified that these amenity values (landscape elements and landscape character), combine to define the particular qualities and uniqueness of the City's landscapes, local areas and neighbourhoods.

The requirement to protect the City's outstanding landscapes means that activities must be managed to ensure they do not adversely affect, not only particular landscape elements and landscape character, but also the landscape as a totality, or whole. In other areas, the Act's requirement that particular regard be paid to protection and enhancement of amenity values, means the emphasis is less on protecting the total landscape and more on managing the degree and rate of change, with particular regard to specific impacts on landscape elements and character. The nature and sensitivity of these amenity values will, to a degree, influence the total level of change in an area.

Some amenity values can tolerate considerable



change, while others may be more sensitive. For example, a key element in the foothills and the urban residential areas is trees. In the Foothills Environment the retention of native trees is essential while in the residential areas, a shift in the mix of trees (so long as the number of trees remains similar), may be acceptable.

The District Plan deals with pressure on the landscapes and amenity values in the following way: the City's landscapes and local areas form the basis for the Human Environments adopted in the District Plan. Table 6.1.4(a) sets out the relationship between the City's landscapes and local areas and the land-use management areas that are the Human Environments in the District Plan;

- different rules managing the rate and degree of change are set out for each Environment. These rules either set particular performance standards or set out a process whereby the impacts of an activity can be assessed;
- within the more natural landscapes and, in particular, within the City's outstanding landscapes, particular emphasis is placed on managing the impact of buildings;
- within the more intensively settled Environments, particular emphasis is placed on the compatibility of building form and scale with existing buildings, and the impact of activities and densities on character;
- protection of trees as a key factor in defining amenity occurs throughout the Human Environments;
- protection of streetscapes, the management of the impacts of new roads and the retention and enhancement of links between private property and public roads;
- enhancement of the amenity of core areas of the Community Environment for pedestrians;
- protection of residents in all areas from nuisance associated with noise, odour, glare, vibration, electromagnetic radiation and enhancement of safety.

The District Plan has adopted an approach to landscapes, amenity values and neighbourhood that seeks to reconcile the need to manage growth pressures and impacts on sensitive resources, with the desire of residents to maintain the valued amenity of different parts of the City. These two concerns are not always easily reconcilable - especially where the desire to protect one area places growth pressures on another, or where the valued

character of an area also reflects inherently unsustainable urban form. As settlement becomes more intensive, impacts on those aspects of the environment that contribute to amenity values may become more problematic.

The result is an approach that directs settlement away from the City's outstanding landscapes and key landscape elements, and balances protection of amenity values with other concerns, particularly containment options. Within the urban area, containment pressures are limited in terms of the amount and rate of change to valued local areas.

Theme Five:

6.1.5 Infrastructure Management

Residents of Waitakere City have both basic needs for food, for shelter, for warmth and for health, and aspirations to achieve a particular standard of living. How each resident and the community collectively satisfy these needs and aspirations can affect the degree of pressure placed on the environment. The District Plan's role is to be aware of the demands for infrastructure and to ensure when infrastructure is proposed, the effects on the environment be avoided, mitigated or remedied. However it is not the role of the Plan to determine what infrastructure is necessary to meet the needs and aspirations of the community, other than what is necessary to protect the environment from the adverse effects of activities.

Water

Increasing urban and rural populations have led to growing demands for water.

Although many who live in the non-urban areas of the City use roof collection systems, the urban areas rely on the reticulated water supply (40% of which is sourced from the Waitakere Ranges). It is a system that places considerable pressure on the environment either through the need to dam waterways and reduce river flow, or through the need to invest heavily in the pipes and pumping stations themselves. The reliability of these systems is not always assured although the City has undertaken an upgrade of its sewage pumping stations and a review of the condition of other infrastructure. The cost to the community of such investment is immense. The vulnerability of this system of supply became obvious in 1994 with the

problem approaching a “water crisis” after the lowest recorded rainfall in 66 years.

DESCRIPTION	MANAGEMENT AREAS	RULES
Outstanding landscapes: Waitakere Ranges, West Coast, Manukau Coast	Waitakere Ranges Environment (Note: rules under the Green Network also contribute to protecting natural aspects of these landscapes)	Assessment of impacts on: • total landscape • landscape character • landscape elements
Valued landscapes: Foothills Northern pastoral landscape urban	Foothills Environment Countryside Environment Living, Working, Community Environments	• amenity values • Neighbourhood (plus impacts on the Waitakere Ranges Environment and the Foothills Environment)
Local Areas: Parau, Karekare, Cornwallis, Huia, Little Huia, Piha, Bethells, Te Henga	Coastal Villages Environment	• Amenity Values • Neighbourhood (regard must also be had for impacts on the surrounding Waitakere Ranges Landscape)
Whenuapai/Herald Island, Hobsonville, Whenuapai Airbases, Waitakere Township	Rural Villages Environment	Regard must also be had for impacts on the surrounding landscapes
Foothills Catchment	Dealt with through structure plans	• Amenity values • neighbourhood
Town Centres	Community Environment	Differing rules for buildings in the core and periphery areas, design for Titirangi, Henderson and New Lynn
Residential Local Areas	Living Environment, Living (L1) Environment, Living (L2) Environment, (in terms of density and impacts on open-ness)	• Amenity values • Neighbourhood These areas share the general features of the wider Living Environment but there are also variations. Therefore the assessment involves impacts on amenity values defining the wider urban residential landscape and the unique features of the local area. In addition the impact on neighbourhood must also be considered

Table 6.1.4(a)

explanation of the strategic direction: policies and methods





Energy

Apart from the use of fossil fuels to power vehicles, the main use of energy in the City is for the lighting and heating (and to a degree the cooling) of buildings, the lighting of streets, and as a source of power for the production and refrigeration of goods.

The main energy source is electricity generated by hydro-electric power, with some heating being obtained from gas and fossil fuels. Wood fuel is also a source of heating for some home owners during the winter months. Generally, little use is made of solar power for heating of either buildings or water. Although some buildings have been insulated, most residential buildings are oriented in a way that does not make best use of passive solar heating. There is a corridor of high voltage transmission lines across the city.

Communication Systems

Like all parts of New Zealand, a fixed line telephone system supplies the City. In addition, a number of radio transmission masts and systems are located in the City. In the future it can be expected that cable television and other fibre optic systems will be installed.

The District Plan manages the effect of communications systems on the environment. There is public concern about the radiation impacts of such systems. There is also a concern that the size and height of the infrastructure needed for these systems undermines the visual amenity and wilderness character of the landscape lying outside the urban area. To ensure that such concerns are managed, and adverse effects are avoided or mitigated communication systems that involve above ground infrastructure require a resource consent.

Waste Management

Wastes generated in Waitakere City include: human and animal wastes; waste from houses (eg washing machines, dish washers and waste disposal units); household rubbish and used products such as appliances and old cars; industrial waste and side products such as gases and hazardous chemicals; and stormwater containing oil, lead and other pollutants from cars.

Most of Waitakere City's domestic and industrial waste water travels through a series of small local Council sewers and ends up in main sewers operated by Watercare Services. From there, it flows to the

main treatment station at Mangere where waste water is treated and discharged into the Manukau Harbour.

The Western Interceptor (the main sewer taking waste water to Mangere) has limited capacity. This has been an important constraint to increased population growth in the City.

The Council acknowledges the capacity limitations of the western inceptor and its implications on urban growth. Investigations, and in particular the Wastewater 2000 Strategy, will continue to be developed to overcome the constraints of the system. It is envisaged that the strategic outcome is likely to be in the form of a satellite treatment facility and/or community based plants. Options for a suitable location are therefore actively being pursued.

There are some 4,500 septic tank systems in the City. While septic tanks can provide a high level of treatment, the level at which they function is dependent on a number of factors, including soil types and frequency of cleaning. The Council has provided a three yearly pump out service for every septic tank in the City since 1989.

Hazardous wastes are generated in some industrial processes and these are shipped out of Waitakere City for treatment. Some waste, and particularly household rubbish, is illegally dumped off roadsides and in rural and bush areas of the City. Potentially contaminated sites such as old timber mills and old rubbish sites exist in the City with associated problems with leachate and toxic gases.

Solid waste is taken to the baling station where it is compressed into bales. These are loaded on to trucks and transported to the balefill site at Kay Road. This site will not continue beyond 1997 and an alternative site will need to be found. Waitakere City Council adopted a solid waste management policy in June 1992. Since that time, solid waste has been reduced by approximately 18%, with the domestic waste stream reducing by 25%.

Stormwater, as such, is not a “waste” product. Where it is absorbed directly into the soils outside the urban area, unless there has been site specific leakage of toxic materials, there are few associated problems. However, pressures on the environment arise when stormwater runs off various hard surfaces around the City. This can have the effect of channelling water through areas which have limited plant cover, and flooding and soil loss can occur.

Within the urban area of Waitakere City, 12% of the total land area is roads. Probably a similar percentage of the land area is made up of other impermeable surfaces - roofs, driveways and sealed areas.

Thus, about a quarter of the rain that falls enters the stormwater system. The water is channelled along roads and into the stormwater drainage systems. Pollution arises from the absorption of various pollutants as the water moves over roads and parking areas where it picks up lead, oil and heavy metals from vehicles, and silt runoff from nearby land. The result is the eventual discharge of these pollutants into streams and creeks.

The current stormwater system which operates in the urban area of the City is designed to remove water from areas as quickly as possible, and does not involve treatment of pollutants that it might carry. There are currently no major stormwater treatment facilities operating in Waitakere City, although stormwater retention/quality ponds are planned at Sturges North, Massey North and Hobsonville.



In responding to these concerns, the District Plan has developed the following strategic responses:

- the reduction of pressure on the environment and demand for infrastructure, by encouraging conservation of resources and recycling and reuse of waste materials;
- the development of infrastructure systems that, where possible, avoid further pressure on the environment.

The former involves a number of actions ranging from the continued development of such things as Council's solid waste programme, to



reducing vehicle use and encouraging the use of passive solar energy. The latter involves a range of responses, from retrofitting of existing Council owned infrastructure, to encouraging introduction of new on-site stormwater systems, and the positioning of Council and community in relation to the ownership and management of infrastructure (such as water supply and waste water services) across the region.



6.2 POLICIES AND METHODS

6.2.1 Managing Population Pressures Outside the Urban Area

Within those areas that fall inside the Green Network, the level of settlement is determined by the ability of relevant natural resources to absorb any effects. That is, the thresholds of particular resources or combinations of resources set the limits on settlement. Within the Riparian Margins Natural Areas, the key consideration is impact on water quality. Within the Protected Natural Area, the key consideration is protection of native vegetation and landforms respectively. The approach taken is to restrict any further settlement within these Areas, except where landowners have the ability to build on already subdivided land. Within the Coastal Natural Area, the primary concern is the protection of the natural character of the coastal environment where that remains largely unmodified. Key issues in this area are removal of bush and earthworks. Because settlement and subdivision are seen as catalysts for these activities, subdivision is also limited.

Within the Managed Natural Area the primary concern is to ensure that any development does not fragment existing bush to a degree that habitat is adversely affected, or the overall indigenous vegetation is reduced to an unhealthy state. In the Restoration Natural Areas, the concern is to limit settlement to a level that does not further degrade remaining bush or intervene with regeneration processes. The policy approach in this situation is to closely manage the location and amount of building, impermeable surfaces and subdivision in these areas.

Thus the approach within the Green Network is to set settlement thresholds that relate directly to the capacity of each area's resources to absorb impacts.

The methods used to manage population and settlement growth in these areas is to establish either minimum lot sizes or to clearly state the situations where subdivisions can occur. A more complex approach is adopted in relation to the Foothills Environment, the Countryside Environment and the Titirangi/Laingholm area.

Countryside Environment

This is the rural area lying to the north of the city's urban area. Given the District Plan's other containment policies and the importance of protecting the integrity of the Whenuapai airbases, intensification to an urban density will not occur. However, the need to establish settlement thresholds still exists. These thresholds will be implemented where appropriate through a structure plan approach and will include consideration of:

- protection of natural resources;
- avoidance of impacts on the efficient operation of the Hobsonville and Whenuapai Airbases;
- protection of rural and coastal character and amenity
- providing for opportunities for regeneration and restoration of resources;
- maintenance of dwellings/population at a level that is consistent with infrastructure and servicing standards
- avoidance of impacts on the efficient operation of rural activities.

It is expected that the structure planning approach, while adopting densities which will vary according to the above, will not result in any subdivision of lot sizes less than 1 ha or less than an average of 2 ha.

Titirangi/Laingholm

This is a particularly complex part of the City. It has some of the characteristics of an urban area (intensive settlement, kerbed and channelled roads) and provision of a drainage system over a large portion of the area. At the same time it is covered by native bush, much of which falls into the Managed Natural Area. Parts of it are clearly more akin to the landscapes of the Waitakere Ranges and the Manukau Coast, while other areas reflect the historic intensive development found in other Bush Living Environments in the City.

The landscape character of the area is recognised through the Waitakere Ranges and Bush Living Environments. Finally, there is recognition of the fact that some land has cleared areas on it, and that limits based on the need to protect native vegetation are slightly less pressing in these parts of the City. Effects from weeds and pests still remain a key issue within these areas.

The District Plan adopts a two-tier approach



to the area which seeks to balance the protection of natural features and outstanding landscapes with the more modified character of the northern part of the area.

The Plan offers those landowners living to the north of the Titirangi/Scenic Drive ridge the ability to develop to a higher density than those to the south and establishes strict development criteria that recognises the different natural and physical characteristics of the two distinct areas. This approach recognises the historic development of the area and the resulting local character, as well as its place within the wider outstanding Waitakere Ranges and Coastal Landscapes, and its position within the Green Network.

Foothills Environment

This area occupies a key position between the urban area and the Waitakere Ranges. There are two unique landscape areas: the upper bush clad areas and the lower pastoral areas. There is a relatively high coverage of native bush in the upper reaches of the foothills, with orchards, other exotic planting and horticultural uses in the lower valley areas. Given the District Plan's other containment policies, intensification to an urban density will not occur. However, the need to establish settlement thresholds still exists. These thresholds exist around the following:

- protection of identified vegetation;
- avoidance of steep and erosion-prone land;
- avoidance of riparian margins;
- protection of amenity and character of the Environment;
- protection of the Waitakere Ranges landscape;
- protection of significant native vegetation and fauna from pests and weeds;
- providing for opportunities for regeneration and restoration of resources;
- maintenance of dwellings/population in the Foothills at a level that is consistent with infrastructure and servicing standards.

An approach has been adopted that sets a minimum site size consistent with the District Plan's containment policies in the Managed Natural Area, Countryside Environment and Waitakere Ranges Environment. However, the Plan allows for some flexibility if a structure plan approach is followed.

The sensitivity of this environment is such that it is anticipated that no further development will take

place in the long term beyond that provided for in a structure plan.

Structure Plans

This allows development to be determined by the capacity of the land and the cumulative impacts of settlement. Structure Plans relate development potential to the specific environmental and physical constraints and opportunities on each site. As part of the subdivision consent certain areas identified on the structure plan will require enhancement (revegetation, restoration or streamside revegetation) or protection through fencing or the placing of covenants or encumbrances on the titles. Any site is assessed in terms of its characteristics and what the catchment or structure plan area can sustain.

The proposed subdivision boundaries indicated in the structure plan are designed to:

- protect the visual amenity of each lot
- protect the visual amenity and rural character of the areas
- retain existing bush areas
- enhance and restore vegetation
- recognise existing drainage patterns and to utilise existing roading networks (including utilising existing farm tracks and accessways).

Council must meet its obligations under the RMA and must give effect to the Auckland Regional Policy Statement.

The timely participation of the Regional Council can ensure that the structure plan process, catchment management plans and subsequent consents from the Regional Council proceed together and in an integrated manner. Community consultation will identify those characteristics of the structure plan area that are most valued by residents and the wider community in considering any future development of the area.

It is expected that structure plans initiated by any parties other than the Waitakere City Council will be undertaken in close partnership with the Waitakere City Council and in consultation with residents, the Regional Council and other interested parties.

In developing a structure plan the following issues must be considered:

- retaining the rural character
- protecting native vegetation
- protecting streams and water quality
- protecting heritage



- protecting amenity and the environment
- avoiding increasing flood risk
- soil conservation, including productive soils
- maintaining urban development within existing boundaries.

6.2.2 Peripheral Urban Growth

While the key policy direction in the District Plan is the consolidation and intensification of future population growth, and settlement within the existing urban area (defined as at 2004), the question of limited growth at the periphery of the City has also been addressed.

Up to 2004, the Birdwood area immediately west of Massey had been reclassified for urban development. The Babich area, west of Sturges, and the Penihana area adjacent to the Swanson Train Station were also identified for future urban growth. An application to urbanise the Babich land was lodged in 2004 and it is envisaged that Penihana will be considered for urbanisation between 2010 and 2021. These are the only areas in which it is envisaged growth will occur west of the City.

A range of future options were then examined for other possible locations for peripheral growth. In assessing whether development should proceed, a range of strict environmental criteria was applied, through a two-stage approach.

Stage 1 excluded any land:

- that was not necessary to fulfil growth capacity issue identified within the existing urban areas to 2021;
- classified as outstanding coastal natural character;
- classified as outstanding landscape;
- contained within any Waitakere Ranges or Foothills area;
- applying to natural hazards - flood or instability;
- within riparian areas;

- containing significant and outstanding vegetation and form of habitat.

Having set these criteria, the only land identified as being potentially suitable for urban growth was the currently rural land and the Hobsonville Airbase land to the north of the city.

Further examinations carried out in Stage 2, within this northern area, included:

- the relative suitability of the areas for mixed use growth, and in particular the growth of employment activities;
- the extent of land required to accommodate the component of urban growth required;
- the ease by which areas could be serviced, in particular with roading;
- impacts on water quality, including water quality of the Upper Waitemata Harbour;
- landscape impacts;
- heritage values;
- the potential quality of any future urban development within the area.

The areas identified include Massey North (based on employment growth associated with retail expansion of the Westgate Centre and significant industrial/service land between future State Highway 16 motorway and the existing State Highway 16); the Hobsonville Village Town Centre (based on an expansion of the existing Hobsonville Commercial Centre) and the former Hobsonville Air Base land (based on a new marine industry precinct and comprehensive mixed-use provisions).



6.2.3 Intensive Housing

Intensive housing comprises higher density housing in the form of “medium density housing”, “apartments” or barns in “mixed use” developments housing is an important tool in the District Plan’s overall consolidation and City form strategies. The Plan concentrates intensive housing around town centres, railway stations and main transport routes. This is part of the strategy centralising key activities around central nodes and points, as a way of improving the viability of passenger transport. It also promotes a high quality urban environment to counter pressures for outward spread of the urban area.

Intensive housing also addresses the problem of lack of housing choice. Waitakere City has a limited range of housing types, particularly for 1 to 2 person households, and limited choices in terms of the location and style of housing. Most housing is detached, on moderate size sections. The District Plan removes restrictions on the provision of alternative housing forms and sees the production of intensive as essential to accommodating an ageing population and changing household structure.

If developers wish to build intensive housing the District Plan encourages them to concentrate building around town centres (especially New Lynn, Henderson and Massey North) and transport nodes and corridors. A concept plan process also made provision for intensive housing as part of a comprehensive mixed use development at the Old Hobsonville Airbase. Design advice and a resource consent process that make it possible for any project to proceed with a good level of certainty also encourages developers to take up the challenge. Although medium density housing may locate elsewhere in the Living Environment, it must be carefully assessed against impacts on amenity values and neighbourhood character.

Intensive housing must be developed in a comprehensive way, on sites of a size that allows consideration of open space and roading layout to be adequately addressed. Detailed assessment criteria are provided to assess each proposal against and to give guidance.

This approach provides more certainty and guidance on outcomes, and gives clear protection to surrounding low-density suburbs, while protecting and enhancing the amenity of the areas proposed for

intensive housing and contributing to wider issues of sustainable city form.

6.2.4 Retail Activities and Employment Growth

Shopping is an essential part of life for the City’s residents. Shopping is important for everyday needs (such as food) and for other needs as well (clothing, household goods, etc). Shopping is also a major leisure activity.

The retailing sector is a major component of the City’s economy. Its health is important to the community from the business perspective (collectively rather than individually) and also because of the many residents who are employed in the retail sector.

In order to survive and prosper, the retail sector needs to compete. This sector has become very dynamic in the approaches taken to compete well and offer the community good service. Changes will continue to occur and some will be difficult to predict - for instance the impact of internet shopping.

Shopping centres often contribute to the overall amenity of an urban area. For this reason, amenity standards associated with shopping centres are very important. These standards can be assisted, not only through individual *development design*, but also through community input, for instance through main street projects, and by co-ordinated planning over a contiguous area such as through a Concept Plan or Comprehensive Development Plan. Shops, by their very nature, attract people. People movement is primarily by car and people will usually use the car to access shops.

It is now well-recognised that many of the City’s (and region’s) issues arise out of private motor vehicle use - including pressure on roads, congestion and pollution and the social, economic and environmental consequences of these (see, for instance, the Auckland Regional Land Transport Strategy 1999). The location of *retail activity* and other employment land can have important ramifications in respect of private vehicle use (including trip length) and the success of promoting passenger transport use and mixed use development.

There will also always be a need for those who have not or cannot (for instance, through disability) have access to a car.

The generation of traffic is also an effect of each individual retail development. Traffic safety and traffic impacts on *roads* and *amenity* can be major issues on assessing the suitability of a proposed development. Other *effects* can include maintaining the visual character of an area (issues of design, screening and landscaping) and noise.

Taking all of the above in to account, the following issues need to be recognised when sustainably managing effects from *retail activity*:-

- *effects* the retail sector (including its distribution) can have directly or indirectly on the social and economic conditions which affect community wellbeing;
- *effects* the retail sector and shopping centres can have on *amenity* in and adjoining shopping areas, and also on the perceived character of the City as a whole;
- the desirability, where appropriate, of integrating *retail activity* with existing retail and other community resources and activities (particularly those in *town centres*) including *site* and *building design* integration, and pedestrian and *road* linkages;
- the relationship between the retail sector and use of the private motor vehicle, and therefore the social, economic and environmental issues arising from private motor vehicle use;
- the need to manage site-generated *effects* of *retail activity*;
- the potential impacts on the continuing effectiveness of *town centres* to act as viable locations for population intensification.

This Plan responds to the above issues through an approach to the location of retail activity which is based on the following:-

- Part 6.1.1 of the *Plan's* Policy section, which explains the City's approach to urban consolidation. Urban consolidation is a major basis to the *Plan* and is consistent with the same major strategic platform of the Auckland Regional Policy Statement. A key component to this consolidation strategy is the management of retail activities. The Plan promotes the centralisation of *retail activities*, particularly within the *major town centres*, being New Lynn, Henderson and Westgate, but also within other *town centres* and, subject to policy and assessment criteria, along *major roads*, as a means of encouraging consolidation of urban activities.

For urban consolidation to work, it is important that nodes of business activities are sustained.

- Urban consolidation is also important in order to reduce the environmental impacts of motor vehicles. A focus of *retail activities* in *town centres* (most of which are centrally located) and on existing and/or proposed passenger transport routes will increase the viability of passenger transport, reduce vehicle trip frequency and length and relieve the wider pressures on the City's water and land resources, infrastructural systems and ecosystem stability, which arise from the outward expansion of the urban area.
- The strategy also recognises a need to respond to the important economic and social needs of the community, represented by the physical environment within *town centres*. That physical environment relies substantially on the retail sector and could suffer through the establishment of inappropriate retail *development* elsewhere. It is important to ensure the adverse *effects* on the social amenity derived from such facilities and services are avoided, remedied or mitigated.
- From an *amenity* perspective, the strategy encourages the formation and sustainable management of *town centres* within which people can provide for their wellbeing and with which they can identify. *Town centres* that are vital and exciting; that are close to a good passenger transport system; that provide excellent and safe pedestrian environments; that contain a grouping of activities which are able to support each other and be supported; and where there is confidence in the future, will have the best chance of sustained investment in high levels of private and public *amenity*.

This approach has some similarity to the strategy that has been in place in the City for many years. That strategy has been confirmed by many past decisions of the Planning Tribunal / Environment Court. However there are important distinctions between the approach of this Plan and what may be perceived as being the basis of past approaches. This *Plan* does not seek to protect existing investment from new development which may better serve the needs of the community through improved amenity, format, technology and pricing. The *Plan* does not seek to restrict the healthy effects of trade



competition, although the land use framework, including provision for *retail activities*, is managed for other effects-based reasons. The Plan recognises that there will be categories of retail activity - such as *convenience shops* which serve local neighbourhoods, factory shops, *yard-based activity* and automotive retail activity - which may be better located outside *town centres*. Some other “destination stores” may also be appropriately located alongside or outside *town centres* (for instance on *major roads*) because of their size and function and their potential to compromise pedestrian or residential *amenity* values. There may also be some future need for a planned new shopping centre. All of these potential developments are provided for, with appropriate criteria to ensure consistency with the overall strategy of consolidation.

A sequential approach is utilised to plan for and assess new retail development. This approach favours the location of *retail activity* in *town centres* having regard to the nature of the particular retail activity and town centre. Beyond that the emphasis is on encouraging a location alongside a *town centre* or a location on a *major road*, subject to matters outlined in relevant policy (particularly Policy 11.17) and rules (particularly Working Environment Rule 5).

All shopping, and particularly that which is pedestrian-orientated, is focused in the *community environment cores*. These cores will continue to provide for shops which people often visit as part of a multiple destination shopping trip.

The *community environment cores* will be monitored to ensure that they can continue to accommodate future retail and commercial activities, with appropriate flexibility to encourage competition. The *major town centres* and certain other *town centres* are likely to grow over the life of the *Plan*. There are options to expand but new *infrastructure*, such as roading, may be required to ensure that the centres grown in a coherent way. New *development* must assist the funding of this *infrastructure*.

Resource Consents

In *Working Environments* there is limited provision for retailing as a *permitted activity*. Other limited provision is made for retailing as a *discretionary activity*, subject to assessment criteria which reflect the matters outlined in policy, such as Policies 11.17, 1.3 and 4.1.

Plan Changes

New shopping centres can be provided for by way of *Plan Change*. In general, this approach will be favoured where *retail floorspace* (including the proposal subject to the application but excluding all *retail floorspace* in the *Community Environment* and that *retail floor space* in the *Working Environment* which enjoys *permitted activity* status) will exceed 6750m² within a 500m radius of the centre of the *site* subject to any proposal.

In addition to matters which will otherwise need to be addressed under the provisions of the *Act*, *plan change* proposals should address the following matters:-

(i) *Impacts on the Waitakere Growth Management Strategy*

The extent to which the new centre will lead to pressures for unplanned peripheral expansion of the City and/or a move away from consolidating urban activity in central areas, particularly those which are accessible to passenger transport systems.

(ii) *Impacts on Private Motor Vehicle Use and Passenger Transport Use*

The extent to which the new centre will lead to increased (or decreased) motor vehicle use, particularly when compared to a location within a *town centre*, and the extent to which the new centre will impact on passenger transport use.

(iii) *Suitability of Existing Town Centres*

The extent to which there are opportunities within or (secondly) contiguous with existing *town centres* to provide for the retail component of the planned centre and, if there are such opportunities, whether the community would be better served by those opportunities rather than the introduction of a new centre (having regard to the policies and explanation of policies in the *Plan*).

(iv) *Impacts on Existing Town Centres*

Whether there will be social, economic and *amenity effects* (positive and/or negative) on the *town centres* as a whole. If there are significant adverse *effects*, whether they can be mitigated to ensure the *town centre* maintains sustained vitality and, if so, how.

Note: the analysis of the foregoing should include *town centre* impact assessments of *retail floorspace* gain or loss, relevant demographic changes, pedestrian flow changes, retail category representation changes, vacancy rates (and whether they are sustainable), customer surveys and changes in safety and *amenity* standards.

(v) *Location Suitability*

The extent to which the location is accessible to and can (where appropriate) be integrated with *town centres* (sites adjacent to *town centres* are preferred) and is accessible (or can be made accessible) to a suitable *major road*.

(vi) *Site Suitability*

- The extent to which the *site* is of adequate size to accommodate retail and other mixed use development, together with parking and landscaping.
- The extent to which the *site* can be developed in harmony with the character of the area in which it is to be located.
- The adequacy of services *infrastructure* (especially *roads* and *drainage*).

It will be noted that the *Plan* makes special provision for retail activities in the *Lincoln Centre Special Area*. This recognises the unique location and history of the centre. The amount and type of *retail floorspace* possible in the centre is managed to ensure that Henderson is not adversely affected, consistent with the *Plan* policies and explanations.

Limited provision is made for retail activity in the *Lincoln Park Special Area*. A comprehensive development plan is required for the site, which will be required to show adequate provision for ensuring minimum standards of *amenity* and *road* access. Retail development must also be adequately integrated with the Lincoln North *Community Environment*. In order to ensure the *town centres* at Lincoln North and Henderson are not adversely affected, consistent with the *Plan* policies and explanations, retailing is strictly limited in this Special Area. The strict limitations are intended to ensure that there is no retail activity outside of the following categories:-

- *service stations* (limited to only one within the *Lincoln Park Special Area* with the main access provided from Lincoln Road);

- shops for the retail sale of arts and crafts and souvenirs not exceeding 400m² total on the *Lincoln Park Special Area*;
- a *supermarket* (limited to only one on the *Lincoln Park Special Area*) with a gross floor area not less than 6,000m²;
- garden centres;
- other shops provided that the *gross floor area* is not less than 6,000m² and any *retail sales* are limited to hardware and building materials, furniture, household appliances, business and office supplies and equipment.

Limited provision is made for retail activity in the *Lincoln Park Special Area* due to consideration of the historical context of development in the immediate vicinity.

Any retail activity beyond that identified above would derogate from the *Plan's* objectives and policies, concerning the sustainable management of the City's natural and physical resources, and in particular, the resources contained in the existing *town centres*. Therefore, any retail activity beyond that identified above or as further specified in the relevant rules would be non-complying.

6.2.5 Intensification within the Urban Area: Infill Housing

A major effect of the consolidation strategy will be increased pressure on the existing urban area to accommodate future population growth. Intensification has already begun within the urban area with a shift from the larger 1,000m² (1/4 acre) and 800m² (1/5 acre) sections of areas such as New Lynn, Glen Eden, Te Atatu South and Te Atatu Peninsula, to the smaller sections ranging down to 350m² in the newer parts of the City. This shift in section size has occurred since the 1970s and, in many cases, was a response to the need to reduce housing costs for moderate and low income households. In other cases, the reduction in area was a clear life-style choice.

Over the last decade, there has also been a shift to subdividing and cross-leasing older, larger sections for "infill housing". The older suburbs have undergone change as new houses are built on the rear of sections. More recently, there has been a trend towards total redevelopment of a site,



including the removal of the existing house and the construction of town houses and units.

There is some concern about the impacts of infill housing, in particular, for example in terms of the loss of trees, the dominance of adjacent sites and the increase in noise and traffic that infill can cause. In effect, the amenity associated with traditional suburbs is undergoing change.

The District Plan has responded to these intensification pressures by managing the degree and quality of change in residential areas. In doing so, it seeks to balance the advantages of consolidation within the existing urban area with the need to have regard for impacts on amenity values.

The Plan has adopted rules that provide for intensification down to a minimum net unit site size of 450m² as of right. Extra “minor household units” can be placed on 600m² sites. This allows households to provide separate but linked accommodation for possible dependants, but does not allow for another full size dwelling on the site.

Within areas such as Green Bay, New Lynn and Glen Eden (Living Environment) (L2), there is no provision for further intensification below 450m². Greater intensification requires a resource consent, that may be publicly notified for discussion. In these areas, a key concern is the maintenance of the sense of space around buildings and retention of vegetation, and in particular, larger trees, as possible. These controls recognise the particular amenity values of these suburbs while providing for a level of change. Land within the *Birdwood Urban Concept Plan* has also been identified as Living Environment (L2). However this is to reflect environmental constraints that exist in terms of potential adverse effects on stream erosion and land stability rather than local amenity.

Within the Living (L1) Environment, landowners may apply through a resource consent to have dwellings on land with a minimum net unit area of 400m². The Living (L1) Environment includes Kelston, Te Atatu South and Te Atatu Peninsula, and recognises the slightly smaller lot sizes (around 800m²) that are common in these areas. However, the rule ensures that Council can assess change against impacts on amenity values and neighbourhood character, on surrounding dwellings and on existing vegetation. Any proposal for a development on sites less than 400m² must also pass

through a resource consent process, which may be notified.

The Living 4 Environment within the *Birdwood Urban Concept Plan* includes areas which have been generally identified for urban residential development but have steeper, less stable topography and contain significant native vegetation and potential enhancement and restoration areas. It is unlikely that these areas will be provided with conventional reticulated stormwater, therefore careful management of stormwater in these areas is critical. Less intensive residential development (minimum average site area 2000m² and minimum site area 1250m² - Living 4) forms the underlying Human Environment. This reflects the identified environmental constraints including stormwater runoff and stability.

Finally, in the rest of the Living Environment, landowners may, through resource consent, apply to have dwellings on land with a minimum net unit area of 350m². Any proposal will be assessed against the same criteria as for the Living (L1) Environment. This rule recognises that in other parts of the city relatively small lots are the norm, and that there should be no restrictions on achieving this smaller lot size so long as amenity, neighbourhood character, adjacent sites and vegetation are protected. Any proposal for a development on sites less than 350m² may also be required to be notified for public discussion.

6.2.6 Non-Residential Activities

Generally, Council has sought to avoid the specifying of different activities as a means of managing effects. Rather, it has preferred to specify performance standards that all activities should aspire to. In the Natural Areas, all activities must conform to standards or assessment criteria relating to site coverage and earthworks etc. However, within the Human Environments, which are defined on the basis of unique combinations of landscape elements (including buildings) and landscape character, the nature of the activities taking place is a major defining feature. This is especially true of the urban area where past approaches to planning have meant major separations of residential and non-residential activities. It is also true of the village environments which are primarily residential in character.

As a general principle, non-residential activities generate a much greater range and intensity of effects than residential activities. For this reason, the District Plan differentiates between residential and non-residential activities when considering some effects. In particular, traffic generation from non-residential activities receives close scrutiny. Further distinctions are made between retail activities and other non-residential activities, also on the basis of effects generated. (See Part 6.2.4 for further discussion of retail activities.)

In addition, the very nature of non-residential activities can create impacts on an environment which is essentially residential in nature. In these areas, the presence of non-residential activities can have an impact on the amenity values and character, purely because of their inherent difference to residential activities. Cumulatively, non-residential activities can affect surrounding residential character and fragment a residential neighbourhood to the point that it becomes unsafe. In addition, non-residential activities often take place in buildings that are different in scale, form and style to surrounding dwellings. One effect can be the domination of surrounding properties. Non-residential activities can involve large areas for parking and storage that detract from an area.

Again, for these reasons, the District Plan differentiates between residential and non-residential activities. This distinction is not intended to exclude non-residential activities but to carefully manage them so that they are established in a way that is in keeping with the surrounding area. They are required to consider the design and style of buildings they are located in, to take account of any screening of parking and storage areas, and to be of a similar scale and form. Any traffic generation and noise must be in keeping with the generally residential nature of the area. This approach provides for a greater mix of activities but sets a threshold that is related to the character and amenity of the residential area.

The District Plan has adopted this approach with the view that some mix of residential and non-residential activities, within the Living Environment in particular, is preferred, and that there is no justifiable reason for restricting non-residential activities other than those offered above. The distinction does not include home occupations

which are permitted as of right, where they conform to certain definitions and standards.

Within the Community Environment, there is no distinction between activities except that any medium density housing must be developed according to separate design criteria. Residential uses are encouraged to locate in this Environment but in doing so must accept that the level of amenity in terms of noise, light and traffic movements will be different from that found in a Living Environment.

This is also the case in the Lincoln Working Environment where there are no distinctions between residential and non-residential activities, beyond that necessary to ensure residential buildings are insulated against noise. However, residential activities are considered to be inappropriate in other Working Environments.

Massey North Employment Special Area

The Massey North Employment Special Area enables the development of a significant employment node located in close proximity to the transportation corridor and the Massey North Town Centre. This will facilitate accessibility including public transportation. This special area is intended to address the issue of the lack of employment land within Waitakere City. In 2004, approximately 63% of the workforce of Waitakere City worked outside of the City. It is considered appropriate to provide additional employment land to enable existing and future population growth to work in the city and to also address the city's historic employment shortfall.

The provision of additional employment land will reduce regional commuter traffic congestion as well as the deposition and discharge of contaminants from vehicles into the water and air.

It is important that the development of this area is managed in an appropriate manner to ensure that any actual or potential adverse effects on the amenity and character of this area are avoided, remedied or mitigated. The District Plan includes controls to ensure that the outcomes sought for this area are achieved. This includes controls on noise and pollutant emission and restrictions on residential and retail activities. The District Plan requirements will ensure this area is maintained as an employment land resource.

Explanation for the Rule

There are rules relating to the management of



noise in all the human environments of the District Plan and the rules have been designed to reflect the predominant activity occurring in that environment. These rules are generally appropriate when measured at the boundary of a site, which defines different *environments*, but these controls are less effective for *residential activities* located in *mixed use developments* in *Community Environments* and in *Working Environments* where the issue is one of *reverse sensitivity*. This is because specific design does not reduce the low frequencies as effectively as the high frequencies. The types of *Non-Residential Activity* that could be outside the sound spectrum and that may generate very high levels of low frequency noise include some nightclubs, bars, cafes with live or amplified music or industrial activities.

For these *Non-Residential Activities*, the approach adopted sets a limit in dBA at the common building element such as floor/ceiling or walls separating different ownership plus a limit on the level of low frequency noise that may be generated by the activity. The combination of design parameters will then control the noise to within a residential use so that the majority of buildings will achieve the design goal.

Changes to other rules relate to *sites* adjoining a *High Noise Route* and *sites* adjoining future *High Noise Routes*. While the standards to be achieved within habitable rooms of *dwellings* have not changed a more rigorous process to ensure that the buildings are constructed to achieve the stated performance standards is required.

Preparation of a Parks Strategy

This involves the integration of objectives relating to the Leisure Strategy, the Green Network, Restoration and Weed Management Strategies, and Town Centre Revitalisation Programmes.



Preparation of Part I of Reserve Management Plans (general strategy) applicable to all parks.

These are general objectives and requirements of the Parks Strategy that are relevant to all reserves.



Preparation of Part II of Reserve Management Plans general strategy for each park category

These are general requirements and objectives that are relevant to each category of reserve.



Preparation of Part III: detailed provisions for each reserve

There are particular requirements that arise out of the specific nature (eg. topography, design, tree cover, location of the reserve) that must be provided for.



6.2.7 Open Space Management

The Council and other public bodies such as the Auckland Regional Council and Department of Conservation are responsible for the management of the public parks and reserves in the City. Parks and reserves in the City are included in the Open Space Environment of the District Plan. The previous provisions for the Open Space Environment in the District Plan were based on the use of reserve management plans for the City's parks and reserves to outline specifically what activities/development would be provided on the park and to ensure that the activities, facilities and layout of reserves incorporated the specific qualities of the parks and reserves while the rules of the Open Space Environment would better manage off site effects.

The Waitakere City Parks Strategy 1999 established a vision for how parks should look in the future and the key steps to achieve this vision. The management and administration of parks is one of the ten objectives in the strategy and it includes a policy for the preparation of management plans. In accordance with the Reserves Act 1977 the purpose of management plans is to outline Council's general intentions for the use, development and maintenance of its reserves. The preparation of each plan involves community consultation to ascertain the needs of the public and to ensure that the development of the park provides appropriate recreational opportunities that are consistent with the natural qualities inherent in the particular landscape.

The rules of the Open Space Environment are designed to control the effects from the development, use and activities on parks, on the surrounding land. The rules for the Open Space Environment in the District Plan control effects such as the bulk and location of structures near boundaries, noise, lighting, and traffic movements.

There are parks and reserves within every natural area in the District Plan and the purpose of the Natural Area Rules is to manage the effects of activities such as vegetation alteration, earthworks and impermeable surfaces on the natural environment.

The City-Wide rules include new definitions for the following activities; parks buildings, parks facilities (such as toilets/changing facilities, shelters and shade structures under 100m²), parks furniture

(seating tables, rubbish bins, barbeques and art works), parks infrastructure (footpaths, track marker bollards), parks field structures (goal posts, courts and playing fields), parks maintenance (weed removal, track maintenance), parks signs and parks sports fields.

The provision for these new categories of activities in the Open Space Environment and Natural Areas rules has been considered in relation to their potential impacts on the physical and built environment of the park and surrounding land. Thus activities, which are an essential asset for the public enjoyment of a park, such as parks furniture, would be provided for as a permitted activity. Similarly, parks facilities and parks infrastructure, which would be likely to generate low environmental impacts if located in a General Natural Area within the Open Space Environment, are also generally provided for as a permitted activity. Small additions to existing parks buildings would be limited discretionary activities. Provision for new parks buildings would be more restrictive because of the potential to generate more effects on the environment and would become discretionary activities.

However, the importance of reserve management plans continues to be acknowledged by including reference to them in the assessment criteria of the Open Space Environment rules.

Reference to the 1999 Parks Strategy, that has relevance to all parks in the City and concept plans that have been prepared for some parks are now also included in the assessment criteria of the open Space Environment rules. Including these documents in the assessment criteria for assessment of limited discretionary and discretionary activity applications will enable full cognisance of the context for any development proposals or management issues to be considered. Existing assessment criteria in the Open Space Environment rules address the potential effects on the adjoining land uses and in some cases these have been expanded.

The Open Space Rules provide for new parks buildings as a discretionary activity on parks even when there is an Operative Reserve Management Plan. While this may seem onerous, given that reserve management plans have been developed with community consultation such development may have the potential to generate temporary



adverse effects on the immediate and neighbouring environs, and these need to be managed, by way of resource consent conditions. Furthermore, new buildings proposed in an Operative Reserve Management Plan are often only conceptual and the full impact of their design and location in relation to external boundaries can only be determined and assessed when the detailed drawings are prepared.

It is likely that in cases where a proposed discretionary activity generally complies with a current Operative Management Plan the use of limited notification, a new process available through the 2003 amendments to the Resource Management Act 1991 may well be applicable rather than public notification.

Currently the objectives and policies for the Open Space Environment relate more to the acquisition of land for new reserves and its consequential development. Thus the existing policies (10.7 and 11.5) for new open space are specifically concerned with ensuring land obtained for open space, is well designed and located in terms of signage, surveillance and integration with local neighbourhoods. Policy 10.20 relates to the provision of access, particularly between areas of public land and to the coast and along waterways. These policies tend to be articulated through the subdivision rules in the District Plan rather than the rules of the Open Space Environment. The policies will continue to be relevant to the acquisition, location and design of new public spaces and, will also be applicable to new development on existing parks. There are other policies relating to the protection and preservation of vegetation and the natural character of the coastal environment, which have relevance to the development of land in the Open Space Environment and the creation of reserves upon subdivision.

As new activities for parks have been formulated two new policies to support these changes have been developed and included in the proposed plan change. These policies reinforce protection of neighbourhood amenities and the natural environment.

The plan makes better provision for the range of activities usually associated with the use and development of land in the Open Space Environment. While removing reserve management plans as a determinant of the activity status of a proposal from the rules of the Open Space

Environment and Natural Areas, the assessment criteria continue to provide continuity with management plans. In addition the 1999 Parks Strategy and concept plans are included for consideration when assessing more significant activities with the Open Space Environment.

The change in direction for the management of open space has been carefully considered following the analysis of the process over a period of several years. The Plan seeks to balance the provision of basic facilities on parks without the need for unnecessary resource consents whilst still protecting the amenity and environmental values of parks and the surrounding land uses. The change promulgates a more responsive process for managing an expanding Council asset.

6.2.8 Subdivision

The District Plan is required under the Resource Management Act to deal with subdivision as a separate matter, with its own consent process. This emphasis recognises that subdivision is a catalyst for further intensification of settlement, that the layout of a subdivision heavily influences the quality of the natural and built environment, and that decisions at the time of subdivision about the provision of infrastructure can have major impacts on environmental quality.

In its approach to subdivision, the District Plan has sought to ensure that the amount and design of subdivision and the provision of infrastructure is compatible with its wider objectives and policies.

The impacts of subdivision on natural and physical resources outside the urban area, and the pressures from consolidation of population within it, are such that a managed process is needed. Most subdivision of land must have a resource consent. Where larger subdivisions are proposed they are closely scrutinised in terms of wider considerations. However, so long as the subdivision satisfies certain performance standards it will have considerable certainty as to the outcome.

In setting conditions or considering approval for a consent, the District Plan has addressed the following:

Protection of Natural and Physical Resources:

Past subdivisions have tended to be laid out in a way that ignores topography and natural features. The result has often meant that in order to achieve

access and a building platform, considerable earthworks have had to be undertaken. Some protection has been provided for trees in the past but there has not been any close integration between the setting of legal boundaries and subsequent development. The result has often been the modification of natural features.

The District Plan approach is two-fold. Within the Green Network the key concerns are the overall resilience, biodiversity and integrity of the Green Network, and minimising impediments to regeneration of vegetation. Protection of linkages between habitat is also important, as is the avoidance of any consequent alteration of water courses and degradation of water quality.

Outside the Green Network, the emphasis is on avoiding consequent adverse effects on streams, water quality, soil stability and vegetation.

In both cases key considerations will be the positioning of cadastral boundaries relative to natural features and adjacent roads, and ensuring the availability of a building platform (except in the Protected, Riparian Margins, Outstanding Vegetation and Coastal Natural Areas).

Protection of and Integration with Landscape:

Consideration of subdivision design in relation to landscape values applies to any subdivision within the Waitakere Ranges and Bush Living Environments. In particular, subdivision must ensure that any building platform is located in a way that buildings do not intrude on key landscape elements. For example, subdivision of land lying across a significant ridgeline must ensure that a building can be placed so that it does not intrude visually above the ridgeline.

Protection and Enhancement of Amenity Values and Neighbourhood Character:

This involves a number of considerations which vary with each Environment. Generally, it involves designing the subdivision to avoid future destruction of natural features, heritage sites, landforms, landmarks and views. In addition, in those Environments where subdivision may include creation of new roads (such as the Countryside, Living, Working and Community Environments), the District Plan is also concerned that the roads themselves, and the relationship between private land and public space provide for continuity and coherence with the surrounding area.

In the Working, Community and Living Environments (greenfields subdivision) the subdivision design must also avoid the creation of unsafe spaces.

In terms of enhancing the amenity of a new subdivision, the District Plan also requires that subdivisions be of sufficient size to provide for planting on-site. Roads have to be able to accommodate a carriageway, pedestrians and cyclists, infrastructure and planting along the berm. Roads on greenfields sites must be designed to enhance linkages and contribute to the coherence of an area. Within the Living, Working and Community Environments, subdivisions (and associated driveways etc) must be designed to reflect the classification of any adjacent road under the “Movement Network”. However, within the Living Environment, road design solutions must also take account of the need to slow traffic through residential areas.

Because roads are the primary public space found within any subdivision, considerable emphasis has been placed by the District Plan on their design and integration with the surrounding environment. Safety, amenity, efficient traffic movement and integration with the surrounding sites are primary concerns. Along with open spaces, they must be designed to provide a focal point for an area.

Within the Living Environment there are clear distinctions between subdivision for infill housing and subdivision for greenfields sites. The primary focus of the infill subdivision rules is to achieve compatibility with the surrounding area and to protect those features that contribute to local identity.

Energy Efficiency

In terms of subdivision, the District Plan design for energy efficiency is concerned with three matters:

- encouraging the creation of passenger transport nodes;
- road design that ensures efficient use of vehicles and reduction of fossil fuel use;
- encouraging the use of passive solar energy.

A branch and stem type of roading system can result in few through roads. The lack of through roads can increase vehicle trip lengths and can result



in the road network becoming congested with motor vehicles. This type of roading pattern tends to discourage pedestrians and cyclists as activities are often a long way away and most trips involve passage along a busy and often dangerous main road. Air and water pollution from motor vehicles can also increase with increased trip lengths. Previous attempts to overcome these disadvantages to pedestrians and cyclists through providing a separate pedestrian network, often combined with reserves, have not been successful, as the paths are often unsafe to use.

The District Plan promotes a movement network that emphasises well designed connected roads where cyclists and pedestrians can safely share the street with motor vehicles. A more interconnected system of roads will alleviate traffic congestion and so reduce air and water pollution. It will also facilitate movement by foot and cycle, while the multiple route options for motor vehicles can reduce trip times and congestion. Fears about fast through traffic disrupting neighbourhoods can be successfully dealt with through detailed design of roads, including their width, alignments and landscaping and the use of traffic calming techniques.

Topographical factors, and the presence of streams and bush have to be taken into account in designing a connected street pattern, and in many cases these features will result in the use of cul-de-sacs.

The District Plan also seeks provision for other transport modes in a way that recognises their equal importance to motor vehicles, and their role in encouraging a shift away from fossil fuel use. To that end, subdivision design on greenfields sites must promote the location of community facilities and schools near focal points and transport nodes, and ensure that the road network provides for efficient and accessible passenger transport routes.

Finally the District Plan has adopted an approach supported by relevant assessment criteria encouraging the orientation of lots to facilitate the construction of buildings that maximise the use of passive solar design. Lots and homes with good orientation to the sun benefit in terms of energy use. In general, a large lot size will allow for flexibility in house siting. With smaller sections, more care is needed to allow for the construction of homes

where outdoor space can be orientated to the sun, and there is the potential for passive solar access.

The Auckland Regional Council have produced a non-statutory guide, called Passenger Transport Supportive Land Use guidelines, on how to lay out developments in a way that is supportive of passenger transport. The guide should be consulted for more information on this topic.

The transport system in the city is made up of roads, footpaths, cycleways, the rail line and associated facilities such as transport interchanges, car parks and park and ride areas.

Increasing levels of congestion and mounting concerns about the environmental effects of motor vehicles (air & water pollution, noise, severance of communities and loss of amenity) have lead the Council and other local authorities, through the Regional Land Transport Strategy, to seek ways of improving the people carrying capacity of the transport system rather than its vehicle capacity. There is an emphasis on developing land use patterns that will help to make public transport more viable, as well as helping people to combine vehicle trips and to shorten trip lengths.

The District Plan has a vital role to play in managing development of these land use patterns. The Plan's approach to urban consolidation, medium density housing and consolidation of retail activities are examples of this. The Plan also as a role in minimising the adverse effects of motor vehicles through its management of traffic on residential amenity. There are rules contained in the Plan dealing with traffic generation in residential areas, developments along high noise roads, the location of vehicle crossing points and the amount of car parking that should be provided on-site. The Plan also contains a roading hierarchy. This hierarchy is intended to help inform current and future residents, landowners and developers of the function of the roads in the city, and the degree to which roads primarily provide for local access versus providing for through traffic.

Open Space Provision:

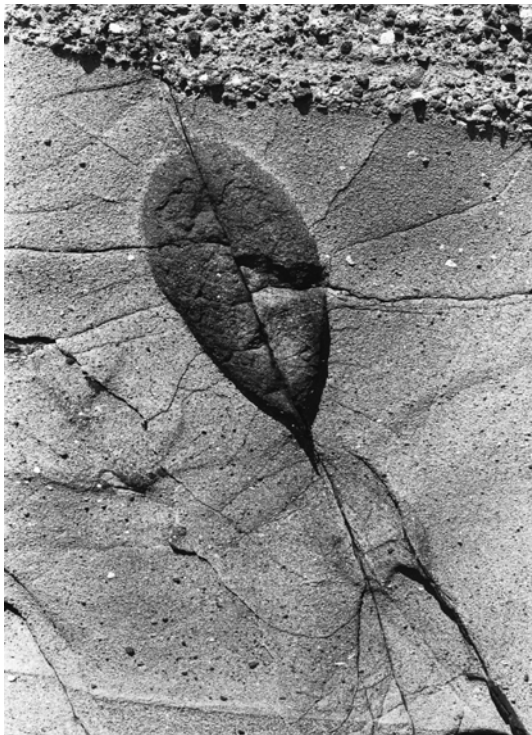
The assessment criteria for subdivision are intended to provide for a comprehensive integrated approach to public reserves across the City, that takes into account the varying features and characteristics. This approach is not new, but the range of concerns highlight not only the need for

protection under the Act but also the need to develop settlement patterns which are sustainable.

6.2.9 Design of Buildings & Structures in the City's Outstanding Landscapes

The City's outstanding landscapes are the Waitakere Ranges and the West coast and Manukau coastal areas. These are shown in Part 3.

Visual intrusion of structures onto the natural landscape elements and the undermining of the natural/wilderness landscape character were identified as a significant resource management issue for the City. The District Plan has adopted a two-pronged approach to these concerns. First, it places considerable emphasis on working with landowners to achieve good building design, through the provision of advice and guidelines. This is considered by Council to be the most effective in achieving effective long term results. Second, Council has adopted rules which seek the merging, as much as possible, of buildings and structures into the natural landscape. The relevant rules are concerned with the location, scale, and colour of buildings. The Plan provides a series of performance standards that allow an activity to proceed without requiring a resource consent; otherwise all matters are limited discretionary or discretionary activities. The relevant concerns are as follows:



Building Location:

a building must be located away from natural landscape elements and outstanding landforms, or in a way that does not intrude visually.

Building Height:

encouragement of low rise buildings, similar in height to domestic buildings and traditional farm buildings.

Yards:

promotion of screening by retaining bush between buildings and all site boundaries.

Building Colours:

encouraging use of colours that do not intrude visually and are non-reflective.

Driveways:

reducing visibility of driveways (materials and visible length).

Fencing:

reducing visual intrusion and minimising removal of bush.



Building Coverage:

limiting the bulk of buildings to a scale similar to domestic buildings and traditional farm building scale.

Signs:

limit signs in size and promote merging with natural landscape.

6.2.10 Riparian Margin and Coastal Edge Management

Riparian margins are the edges of banks of natural watercourses, including rivers, streams, lakes and wetlands. Coastal edges are the margins of the City's coastline. Both riparian margins and coastal edges, particularly when covered by vegetation, contribute to the maintenance and enhancement of water quality, the protection of ecological values and the avoidance and mitigation of natural hazards. This is done by:

- filtering contaminants (e.g., sediment, nutrients, pesticides and particular organic matter) from surface and groundwater that ~~is~~ are moving from adjacent land;
- trapping sediment from water during floods;
- the shading of water which minimises daily changes in water temperature and nuisance from algae and weed growth. It also maximises the presence of dissolved oxygen;
- the provision of nesting, roosting and feeding habitat for wildlife and edge vegetation provides breeding habitat for white bait.
- the binding of soil by the roots of vegetation can also reduce the potential for erosion.

Riparian margins and coastal edges also contribute to the natural character of the City's streams and coastline in the rural and urban areas of the City.

Research in New Zealand and the United States has identified the effectiveness of having vegetation buffers along the edges of streams and the coast. Grass can also be an effective tool in removing sediment and nutrients from surface water, but its ability to do so in the winter months, or when soils are water logged, is limited. Tree and shrub cover are equally effective and have the additional benefits of providing shading, habitat and amenity. For example, a riparian strip, depending on its width, can trap between 54% and 100% of nitrogen.

Riparian shading also has a significant role in maintaining water quality. Thick growths of algae and other weeds grow in open stretches of streams during the summer. They give off oxygen during the day but use up oxygen at night, depressing oxygen levels to below necessary standards for aquatic ecosystems and fish spawning purposes. Stream acidity also increases at night.

Stream shading keeps temperatures lower and reduces sunlight, suppressing weed growth and thereby maintaining oxygen levels, stream chemistry and a suitable temperature regime for naturally occurring aquatic life. In the Oratia Stream, for example, a number of sensitive aquatic animals are found in the upper reaches of the stream but not in the middle reach, where it flows through farmland and orchards with inadequate shading.

Riparian and coastal edge vegetation can provide habitat for wildlife. Native vegetation will be best suited for growing in these areas but the 20m width that is optimal for the takeup of materials is likely to be less suitable for effective wildlife habitat. Forest and shrubland less than 40m in width suffers from the "edge effect" of drying winds, weeds and pests.

An approach to protection and promotion of riparian margins can conflict with flood management, an issue of similar importance. The integrating of the two concerns, and the promotion of flood control plans that recognise non-engineering solutions to flood prevention, is seen as one solution.

The approach taken in the District Plan is to adopt policies to protect riparian and coastal edge vegetation in order to maintain and enhance water quality, protect fauna habitat, avoid or mitigate natural hazards and preserve natural character.

Implementation of these policies is to be achieved through a range of methods: District Plan rules, esplanade reserves and strips and other non-regulatory methods. The District Plan rules adopted identify a Riparian Margins/Coastal Edges Natural Area that lies along the main city streams and coastal areas. This Natural Area varies in width depending on the characteristics of the area - including the steepness of the stream banks.

Within this Area, limits have been placed on the removal of vegetation, earthworks, and the construction of buildings and impermeable surfaces. This is to protect what vegetation is there, and to encourage the regeneration of bush. As the banks of

rivers and the edges of the coast are particularly susceptible to natural hazards, the Riparian Margins/Coastal Edges Natural Area also acts as a use and development buffer zone that contributes to the avoidance or creation of new natural hazards.

When shown on the Natural Area Map there will be instances where the Riparian Margins/Coastal Edges Natural Area lies across an existing structure. This does not in any way limit the ability of landowners to use their buildings, and if the building is destroyed, by fire for example, landowners have the ability to rebuild if this is done within a year of the occurrence. However, new structures cannot be built within the area.

Care has been taken when defining the Riparian Margins/Coastal Edges Natural Area to avoid such a level of coverage of a site, especially smaller sites, that it restricts the ability of landowners to make reasonable use of their land. The resource consent process also allows for assessment of activities that exceed the permitted activity performance standards. Any application is assessed in terms of its impact on water quality, habitat and the Green Network generally.

It is important to note that although the purpose of the Riparian Margins/Coastal Edges Natural Area and esplanade reserves (also known as 'the Queen's chain') are similar, there are some fundamental differences, these are:

- privately owned land that has been classified as Riparian Margins/Coastal Edges Natural Area remains in private ownership;
- the Riparian Margins/Coastal Edges Natural Area does not allow any public access on to privately owned property;
- private landowners can still make use of any part of their property which is classified as Riparian Margins/Coastal Edges Natural Area. However, some activities are subject to restrictive controls because of the potential for significant adverse effects in these particularly sensitive areas.

6.2.11 Restoration/Natural Areas and Ecological Linkage Opportunities

A key to maintaining the life supporting capacity of ecosystems, particularly indigenous ecosystems and the quality of other resources is biodiversity.

The long-term viability and resilience of native ecosystems can be assessed in terms of:

- their ability to recover from stress (for example, a manuka shrubland will recover more rapidly than a kahikatea forest);
- the degree of threat (for instance, the extent to which weed and pest invasion, and earthworks could affect the area);
- the landscape surroundings (for example, a forest remnant in a gully will have better natural protection than a forest on a ridge); and
- how well it is buffered (for example, native forest may be buffered from winds by a pine shelter belt or wattle shrubland).

Native vegetation cover declines dramatically away from the Waitakere Ranges. Within the urban area most remnants exist as narrow strips along the streams, in gullies and back yards. Only three moderate sized remnants remain - at Moire Park, Swanson Scarp (including the Kay Road balefill), and Waikumete Cemetery.

All of the smaller remnants have very little core area where seedling growth is not disturbed by drying winds and high sunlight. These remnants have a relatively high edge to area ratio, increasing the area available for weed growth. They are often too small to support viable populations of animal and plant species native to the City. Loss of key species such as the kereru (wood pigeon) also affects regeneration.

Key issues for these areas are the need to protect indigenous remnants, increase the area and buffer of remnants and re-establish links between remnants.

The re-establishment of linkages through natural processes centres on the concept of ecological corridors which link areas of significant native vegetation and fauna habitat to other remnant areas. These linkages facilitate the natural movements of native plants and animals between areas, and of seed dispersal.

The key to maintaining the biodiversity and natural character of Waitakere City lies in



managing the total population of large and small habitat remnants as a single unit. Therefore, the ability of wildlife populations to move between remnants is essential. Such an approach enhances population survival, supplements population growth

during poor breeding seasons and provides for re-colonisation. Corridors between habitats, and especially forest remnants, are vital for the movement of the species.

FAUNA SPECIES	NEED FOREST CORRIDORS	PREFER FOREST CORRIDORS	MOVE ACROSS OPEN LAND
Tree Weat	X		
Native Weevils	X		
Forest gecko	X		
Auckland green gecko	X		
Kieru (NZ Pigeon)	X	X	
Tui	?	XX	X
Grey warbler	XX	X	
Shining cuckoo	XX	X	
Fantail	?	XX	X
Silvereye	XX	X	
Morepork	X	X	
Kingfisher	XX	X	

Table 6.2.11(a)
Forest corridor requirements of a range of fauna species found in Waitakere City
(Two stars indicate a strong requirement or preference)

PLANT SPECIES	WIND DISPERSED	WATER DISPERSED	BIRD DISPERSED
Kauri	Low dispersal ability		
Tanekaha	Low dispersal ability		
Hard beech	Low dispersal ability		
Kowhai		Needs seed coat abrasion	
Puriri			Kereru only
Karaka			Kereru only
Miro			Kereru only
Totara			Kereru and tui
Matai			Kereru only
Hinau			Kereru only
Tawa			Kereru only
Tarairi			Kereru only

Table 6.2.11(b) Indigenous plant species found in Waitakere City with severe dispersal limitations (the agent of dispersal is shown)

Most of the native bird species in the forest remnants in the north and east of the City are either species that can forage along forest edges, or those that can cross open land to other forest patches. The more specialised birds of the forest, eg tom-tit and kaka, are found in the heart of the Ranges. The possible reintroduction of the whitehead, robin and weka into the Ranges could see some species eventually spreading down into the larger forest remnants of the foothills. The forest and shrubland lizards are entirely dependent on forest corridors to repopulate depleted areas or occupy marginal habitats in more favourable years.

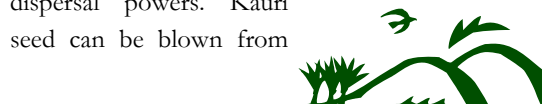
Many insects have winged stages in their life cycles which allow them to cross open country to other forest patches, eg beetles, flies, moths and butterflies. But the powers of dispersal for many of these species are limited, and may be less than 100m across open land, urban or industrial land. Other insects are flightless, including a number of distinctive members of the City's forest fauna - wetas and weevils. Many other forest invertebrates,

including land snails, earthworms, centipedes and millipedes, need corridors. Table 6.2.11(a) shows the ability of different species to move between forested areas.

The movement of plant species is the basis of the regeneration process which is taking place in 90% of the forests of the City, both in the Ranges and in the lowlands. Human activities are now having a major effect on the patterns of forest regeneration and succession in the forest remnants away from the Ranges. Many remnants are so isolated that the seeds from the next stage of forest succession are either unlikely to reach there, or may take many decades longer to arrive.

Seed dispersal methods are the key to plant movement. The main dispersal modes are wind, water and birds. Table 6.2.11(b) shows the dispersal means for key forest species.

Many of the most distinctive canopy trees of the City's forest species are species with very poor dispersal powers. Kauri



ridge to ridge or it might migrate up a ridge over a millennia, but many forest patches are now too isolated from a kauri source, for instance, for it to re-establish there.

Worse off are the many hardwood and podocarp species that rely on kereru (wood pigeon) for seed dispersal and for improved seed germination once the bird has digested the fleshy cover around the seed. The nation-wide decline of the kereru (from habitat loss and predation) is now having serious effects on the ability of trees with large fruits to disperse. These trees must rely on slow movement across forest corridors until kereru numbers recover. Without forest corridors, the long-term prognosis for many forest patches is poor. Many are destined to remain as kanuka dominant forests with ever dwindling diversity as local extinction occurs and their replacements fail to arrive.

The District Plan rules influence earthworks, bush clearance, impermeable surfaces, subdivision and building within the Restoration Natural Areas as a way of minimising impacts on the regeneration process. The District Plan also recognises the importance of supporting and extending these initiatives and the identification of Ecological Linkage Opportunities by providing assistance and encouragement to landowners.

The key benefits of ecological corridors are: higher immigration rates of species between vegetation remnants; maintenance of species numbers; increased foraging area for wide-ranging species; increased opportunities for species to escape predators; a greater mix of habitats and environmental stages for species. There are, however, some disadvantages in that there is increased risk from fire.

6.2.12 Financial Contributions

The Resource Management Act allows for the taking of financial contributions, under Section 108. Financial contributions are charges on activities to cover the cost of infrastructure and to ensure that the true costs of resource use are met. Contributions can take the form of cash, land, or a combination of cash and land. However, the taking of financial contributions may only be for a purpose given in the Plan, and the level of the contribution must be determined in the manner described in the Plan.

A financial contribution must fairly and reasonably relate to adverse effects associated with a proposal, and ideally there should be no cross-subsidy, either from the resource-user to society or from society to the resource-user.

This District Plan allows for financial contributions in relation to a range of activities and is based on the premise that resource-users should face the true cost of their activities. Applicants should contribute towards infrastructure upgrades that are needed, in whole or part, as a result of the activities they propose. Similarly, if an activity utilises excess infrastructural capacity which has already been provided to cater for future growth, then it is reasonable to recoup the relevant costs through a financial contribution. Adequate standards of reserves and public access can also be adversely affected by growth, leading to a requirement for more land or improved facilities.

The District Plan provides for the taking of financial contributions towards the capital costs of works relating to:

- roads;
- carparking;
- wastewater treatment or disposal systems;
- stormwater treatment or disposal systems;
- public water supply systems;
- reserves
- legitimate public access to water ways or public land;

Financial contributions are taken for capital and one-off costs, maintenance costs being more appropriately recovered through rating or user charges.

6.2.13 Special Areas/Scheduled Sites

A number of special areas and scheduled sites are identified in the District Plan.

These sites contain unique activities, which differ markedly from the surrounding environment. Special Areas relate to a complex of buildings and activities on a relatively large site. Scheduled sites relate to a single activity on a relatively small site. The intention with this approach is to ensure that the noted activities are able to proceed without being unreasonably restricted by the requirements set for the surrounding Environment. For example, the Waitakere Hospital is located within the Living Environment. The rules for the Living Environment

are set around residential activities, with specific controls over non-residential activities. To apply these controls would be unreasonably restrictive. Nonetheless, activities taking place within the Hospital Special Area must have regard for the same kinds of concerns as any other part of the City.

Within the Special Areas there is sufficient flexibility to allow for the changing nature of the activity within parameters relating to natural and physical resources, health and amenity values. The approach is more restrictive for scheduled sites in that the activity must remain largely unchanged. In effect the scheduled sites allows some flexibility within the existing operation.

In all cases, the activities within the Special Areas and scheduled sites must achieve a level of amenity and protection of resources equal to any other part of the City. There are two exceptions to this: the Quarry Special Area and the Balefill Special Area. In these two cases it is recognised that the degradation of particular natural resources must be balanced against the need for the local community to take responsibility for its own wastes and resources needs. In both cases, stringent site restoration requirements will apply once the sites have reached the end of their useful life. The Special Areas shown in the District Plan recognise the existing situation. Future sites, if any, will be assessed in terms of their impacts on natural and physical resources and amenity values.

6.2.14 Large Property Management Area (1)

A number of Large Properties (over 30 ha) located within the Waitakere Ranges Environment are identified in the District Plan. Environmental assessments of these sites have provided detailed information on which to base individual management plans for each property. In each case, the permitted subdivision, use and development has been tailored to the unique circumstances of the property, taking into account existing and past use of the properties and the opportunities to achieve net environmental benefits.

It is recognised that other properties may be eligible for this status. Prior to considering a variation or a plan change, the Council will require an assessment of environmental effects to be completed. Application of a Large Property Management Area

to any property must ensure a level of amenity and protection of resources at least equal to that which would be achieved elsewhere in the Waitakere Ranges Environment.

Waiatarua Parklands Large Property Management Area (1)

The purpose of the “Waiatarua Parklands” Large Property Management Area (1) is to provide for a comprehensively planned residential subdivision which offers net environmental benefits compared to the type of subdivision generally permitted by this Plan. This objective will be achieved by clustering dwellings on the stable ridges while setting aside almost 80% of the land as a public reserve linking adjacent reserves and protecting indigenous bush and riparian margins in their natural state. To avoid adverse visual effects and to enhance amenity, building platforms have been defined for Lots 2-9 and 11-13. The careful siting of dwellings, the protection of existing indigenous vegetation on the proposed residential lots, screen planting along the western boundary and extensive revegetation of the General Natural Area by planting selected native species, will mitigate any potentially adverse visual effects caused by building on the ridge. At the time of subdivision, these measures will be implemented by covenants restricting the further subdivision of the residential lots, delimiting the building platforms and allowable bulk and providing for the establishment and maintenance of the enhancement planting.

Stormwater and effluent disposal systems will be specifically designed to suit the geotechnical conditions and to avoid contamination of the streams or damage to indigenous vegetation located within the reserve to vest. Accordingly, effluent disposal will take place within the residential list and/or on a lot dedicated solely for this purpose. The performance standards for the design of the stormwater system shall be those applying to the subdivision of land in the Oratia Structure Plan area i.e., the effects of development shall be similar to those which prevailed prior to pre-development. The implementation of these objectives will be achieved when application is made to the Auckland Regional Council for the appropriate consents.

“Wainamu” Large Property Management Area (2)

The purpose of the “Wainamu” Large



Property Management Area (2) is to provide for the economic and environmental sustainability of this land. This objective will be achieved by enabling a modest increase in subdivision and development while securing the permanent protection and enhancement of areas of significant indigenous vegetation. The use of the land for filming, together with grazing and forestry, will ensure that the ecological and landscape values of the property continue to be well managed. For example, grazing keeps the weeds under control and filming means that the natural landscape will be protected as a scenic backdrop. By carefully selecting building sites for new dwellings and areas for forestry, the natural character of the landscape is further protected. Furthermore, the management measures proposed, such as protection of the wetland and enhancement of its margins by stock exclusion and re-vegetation, go further towards achieving the environmental goals of the Plan than would reliance on existing use rights or the current rules. At the time of subdivision, these protection and enhancement measures will be confirmed by a consent notice or other mechanism, thereby securing net environmental benefits.

“Te Henga” Large Property Management Area (3)

The purpose of the “Te Henga” Large Property Management Area (3) is to recognise and provide for the unique cultural, historic and ecological value of this important site to be managed in a way which achieves the goals and objectives of the Plan while meeting the aspirations of the owners. The Large Property Management Area method permits a limited amount of subdivision, two additional dwellings and the continuation of existing uses while identifying those ecological values which merit permanent protection and/or enhancement. It also enables the low-key character of this informal settlement to be continued. At the time of subdivision appropriate lakeside enhancement around Lake Waiaataru will be required (if not already carried out by that time). If necessary, to prevent stock access, permanent fencing off of this enhancement area, and of the Happy Valley streamside, may also be required. Any subdivision involving Lake Kawaupaka will need to recognise the very important historical and ecological values of the lake and its surrounds. In that part of the site it is expected there will be a strong conservation

emphasis. Public access may not be appropriate and for this reason, esplanade reserves involving any subdivision creating lots of 4ha or more will not be required on this, or any other part of this Large Property Management Area.

“Bethells” Large Property Management Area (4)

The purpose of the “Bethells” Large Property Management Area (4) is to provide for a range of existing and proposed activities in the substantially modified north-western sector of the property in a way which enhances the landscape and fosters improved management. By concentrating buildings, grazing and viticulture in this area and by utilising native and exotic forest to provide screening, the visual effects of these activities will be minimised. Furthermore, there are additional environmental benefits available because of the protection of Priority Vegetation Site 33, a unique example of “kanuka scrub on unconsolidated sand dune” in the Waitakere Ecological District, and of a small area of pohutukawa forest located within the Lake Kawaupaka catchment. The balance of the property remains subject to the relevant Human Environment and Natural Area rules in the Plan, thereby retaining an area of significant indigenous vegetation in its natural state. {A147, A148}

6.2.15 Hobsonville Peninsula

A Hobsonville Airbase Plan Change introduced four new “Special Areas” into the District Plan. There is a comprehensive set of new rules for each of the special areas, being Hobsonville Base Village Special Area, Hobsonville Marine Industry Special Area, Hobsonville Landing Special Area and Hobsonville Future Urban Special Area.

The “Special Area” approach has been taken, rather than using standard Human Environments. The reason for this is that each of the four special areas has its own unique characteristics, which are best recognised through a specifically targeted District Plan approach.

In these areas the District Plan requires a comprehensive approach to the development of areas with defined characteristics. Generally, no development may commence until a Comprehensive Development Plan has been prepared.

The requirement for a resource consent for a Comprehensive Development Plan provides the

certainty that design of development will be coordinated, at least at a Precinct level. At the same time, it provides the potential for flexibility with regard to such matters as bulk and location controls, as the Comprehensive Development Plan approach can ensure that one part of a precinct can integrate with all other parts, and also with adjoining precincts. While the Comprehensive Development Plan resource consent application may be made by one party, it is expected that all landowners that may be involved in the precinct covered by or immediately adjoining to a Comprehensive Development Plan will be involved in that Plan's development.

There are also "City-Wide" Rules that apply in each of the Special Areas, including such matters as apartment design, street typologies and noise. These rules are applied either directly by cross-reference in the Special Area rules, or will be introduced as standards at Comprehensive Development Plan resource consent stage.

To summarise, development of the Special Areas will be prioritised so that:

- Development of the Hobsonville Marine Industry Special Area is made possible for marine and marine related activities.
- Only limited forms of other development can occur in the Hobsonville Future Development Special Area and the Hobsonville Landing Special Area.
- Any residential or non-residential development (other than Hobsonville Marine Industry Activities developed in accordance with a Comprehensive Development Plan) in the Hobsonville Future Development Special Area requires a new Plan Change.
- Further development (beyond what is enabled by Plan Change 13) in the Hobsonville Landing Special Area requires another Plan Change process.

The general format and approach of each Special Area is described as follows:-

Hobsonville Base Village Special Area

The Hobsonville Base Village Special Area incorporates the existing developed areas at the north-eastern and south-western ends of the Airbase, together with the "greenfields" land in-between. The developed area at the north-eastern end contains a number of heritage buildings and

areas, important areas of open space, buildings which can be converted to non-residential uses such as for the film industry, offices, community uses and education. Other areas have been identified for the development of early childhood education and state educational facilities for years 1 - 13. The area as a whole also has significant potential for housing development. The flat topography, attractive environment, proximity to major transport routes and proximity to significant future employment areas all contribute to an opportunity to provide for well designed, higher density housing development, consistent with regional and district policies for urban containment. Together with the need for one or two retail nodes to serve this area, all of these various characteristics need to be carefully managed through Special Area objectives, policies and rules.

The Hobsonville Base Village Special Area has been divided into eight "precincts". Each precinct has its own characteristics, constraints and opportunities, and needs to be managed and developed in different ways.

The approach the District Plan Special Area provisions take is to identify each precinct and to set up an objectives and resource management approach which partly relates to the whole of the Special Area and partly relates to each individual precinct.

Permitted activities are limited to the specified use of existing buildings and other limited forms of activity. All new development will be subject to three layers of management control.

The first layer of management relates to the whole of the Hobsonville Base Village Special Area as shown on the Human Environment Maps. The Hobsonville Base Village Special Area includes two Concept Plans: These are the Hobsonville Peninsula Urban Concept Plan and the Hobsonville Peninsula Urban Concept Plan - Features. The Hobsonville Peninsula Urban Concept Plan illustrates the precincts and indicative major roading pattern, expected land uses and residential densities. The Hobsonville Peninsula Urban Concept Plan - Features illustrates amenity and character features, and key movement and public transport routes. Each element of the Concept Plan must be incorporated into the ultimate development of each precinct. In this way, an overall planned approach to development occurs.



A second layer of management involves the approval of a Comprehensive Development Plan resource consent before any development is allowed. Comprehensive Development Plans are prepared on a precinct basis and assessed via a resource consent application (as a Limited Discretionary Activity). The Comprehensive Development Plan must include relevant elements of the two Concept Plans, as well as greater detail in matters such as local roading patterns, open space provision, proposed positions of key buildings, satisfaction of minimum housing densities, and indicative site layouts. There are also varying expectations for design guidelines and design themes, the aim being to ensure existing features are retained and/or enhanced and new development is of a co-ordinated, high quality. The provision of infrastructure is also addressed at this time, with it being necessary to ensure such matters as storm water and wastewater disposal are adequately catered for. It is expected that, in the preparation of comprehensive development plans, there will be consultation with the Auckland Regional Council to ensure co-ordinated planning of air, land and water resources.

The third layer of management involves a resource consent (as a Controlled Activity for residential buildings and a Limited Discretionary Activity for other buildings) for each building proposed, and for non-residential activities (residential activities are permitted in buildings approved for that purpose). This allows detailed assessment of the design and quality of each building and how it relates to the street and surrounding development, as well as ensuring activities are appropriate and complementary. Each building and activity must comply with the relevant approved comprehensive development plan.

Where no Comprehensive Development Plan is approved, resource consent applications will be assessed as a non-complying activity against the Hobsonville Urban Concept Plan, the Hobsonville Urban Concept Plan - Features and the relevant Special Area objectives, policies, rules, and assessment criteria.

There are a range of other rules applying in this Special Area which cover such matters as noise, parking and natural areas management.

While this approach does involve a high level of management, that is considered justified considering

the nature of existing features and the fact that expected new development will be at a relatively high density and will need to be carefully designed. Some flexibility is provided through changes being possible to “precinct standards” by way of a Discretionary Activity application. The rules and Concept Plans detail what the fixed standards and precinct standards are.

Hobsonville Marine Industry Special Area

The Hobsonville Marine Industry Special Area covers approximately 20 hectares on the plateau above the Waitemata Harbour. One large-yacht builder, is already established. The area has been identified as uniquely suitable in the Auckland Region for a larger boat building node. This is because it is vacant land with potential access to a deep water channel off the existing hardstand area at the northern end of the base. As this is such a rare resource it is important that it is not compromised through inappropriate development. It is also important that the area be developed in a way that ensures a comprehensive, planned approach, including attention given to what type of development will occur on the surrounding land. The Comprehensive Development Plan method ensures that these matters are addressed.

The resource management approach for the Hobsonville Marine Industry Special Area is very similar to that of the Hobsonville Base Village Special Area. All new development will be subject to the same three layers of management control.

The Concept Plan shows four separate development areas.

Area “aa” is the core area within which major boat building activities will take place. Those activities are limited under the rules to uses which are associated with large boat building, finishing or maintenance. That control is considered necessary to ensure maximum advantage is made of that area which has direct access, to the deep water boat launching and retrieval facility.

Area “bb” is a “buffer” area between the heavier, bulkier activities and buildings and adjoining sites.

Area “cc” contains existing buildings which are generally required to be retained.

The expectation is that Areas “bb” and “cc” will be occupied by ancillary marine industry activities such as offices and marine component builders. These areas, together with Area “dd” shall not be

occupied by activities that would require a resource consent under the Air Quality section of the Auckland Regional Plan - Air, Land and Water.

Area “dd” is located at the eastern end of the Special Area, adjacent to an open space area and overlooking the Waitemata Harbour. This area is visible from the Harbour and parts of North Shore City. It is important that development be of a design that recognises the need to ensure an appropriate standard of visual amenity. Area “dd” also presents a valuable opportunity for suitable residential and/or mixed use development, provided that it is designed appropriately to avoid effects including reverse sensitivity effects, involving nearby marine industry activities.

Before any further development occurs it will be necessary to have a Comprehensive Development Plan approved via a resource consent application (as Limited Discretionary Activity). The Comprehensive Development Plan must include relevant elements of the Concept Plan, as well as greater detail in matters such as the way in which the shared facilities will work, the proposed positions of key buildings and indicative site layouts. There is also an expectation that design guidelines will be developed, the aim being to ensure a complementary and attractive nature of development, recognising the need for large buildings and the general large-industry based format of this Special Area. The provision of infrastructure is also addressed at this time, with it being necessary to ensure such matters as stormwater and wastewater disposal are adequately catered for. It is expected that, in the preparation of the comprehensive development plans, there will be consultation with the Auckland Regional Council to ensure co-ordinated planning of air, land and water resources.

The third layer of management involves a resource consent (as a Limited Discretionary Activity) for each building proposed. Each building must comply with the approved Comprehensive Development Plan.

Where no Comprehensive Development Plan is approved, resource consent applications will be assessed as a non-complying activity against the Hobsonville Urban Concept Plan, the Hobsonville Urban Concept Plan - Features and the relevant Special Area objectives, policies, rules, and assessment criteria.

Hobsonville Landing Special Area

The Hobsonville Landing Special Area (existing reclaimed hardstand area) is important for the successful operation of the Marine Industry Special Area as it provides the access to the deep water channel. It has also been recognised as a good and logical location for a ferry terminal. However this area is also a potentially important community resource and more planning and consultation is required before comprehensive development of this area can be considered. The Special Area approach allows for the interim establishment of boat launching and access roading facilities, and also a ferry terminal, whilst also making it clear that other future development will be the subject of a future plan change after further investigations and consultation have been carried out.

The Hobsonville Landing Special Area is important for the successful operation of the Marine Industry Special Area Precinct as it provides the access to the deep water channel. That activity is therefore specifically provided for, through a Discretionary Activity resource consent. It is recognised also that the launching/retrieval facility will require a coastal consent - a procedure conducted pursuant to the Regional Coastal Plan.

Discretionary Activity resource consent provision is also made for ferry facilities.

Policies and assessment criteria recognise the future potential of the Hobsonville Landing Special Area for other, as yet undefined, activities. When establishing boat access, ferry and launching/retrieval facilities an assessment will be required of the flexibility necessary to accommodate future activities. Future activities will ultimately be provided for by way of a plan change process.

Hobsonville Future Development Special Area

The Hobsonville Future Development Special Area comprises two parts. The larger part lies to the south-east of the Hobsonville Base Village Special Area and extends to the Upper Waitemata Harbour coastline. It contains an important coastal interface, and at the mouth of Nimrod Inlet and Bomb Bay there is a shellbank that is one of the two major roosts on the Waitemata Harbour for wading birds, including threatened species. These birds feed in the intertidal area east of the Peninsula.

There are a number of future opportunities and options for development which include the possible



extension of the marine industry area, housing and provision of open space. These options need to be further investigated and refined before final planning for this area is put in place.

This area will, in time, form an appropriate extension of the urban area. There will be a number of matters to be addressed at that time, including potential public access and amenity areas around the Waitemata Harbour, the ecological values of the Harbour itself (the area is an important bird wading habitat) and landscape values.

The second area lies west of the Hobsonville Marine Industry Special Area. Subject to further investigation, this area could possibly be developed in future as an extension to the Marine Industry Special Area, or for mixed use development. This will be subject to ensuring that adverse effects between residential and non-residential uses do not occur, and that the integrity of the Hobsonville Future Development Special Area as an important business/employment node is recognised.

The Hobsonville Future Development Special Area shall be retained for future residential and non-residential development and not compromised by any inappropriate development in the meantime

This area is not required in the short term for residential growth. There are advantages in ensuring that development first occurs in a co-ordinated and consolidated way in the Hobsonville Base Village Special Area. It is envisaged the Hobsonville Future Development Special Area will be made available by way of a Plan Change for future residential and non-residential development once a majority of the land within the Hobsonville Base Village Special Area has been developed consistent with the Concept Plan for that area.

The Hobsonville Future Development Special Area may be made available for future residential and non-residential development, (other than Hobsonville Marine Industry Activities developed in accordance with a Comprehensive Development Plan), by way of a plan change, once further investigation and consultation has been undertaken and the specified minimum threshold of development has occurred in the Hobsonville Base Village Special Area. Achieving that threshold is an important prerequisite, as enabling residential development on too much land at one time can actively undermine the establishment of a compact,

efficient settlement in a manner that future retrofitting cannot reliably infill.

The threshold requires at least 80% of the expected household numbers in the rules being completed within each of the Sunderland Head, Campus/Runway Park, Buckley and Hudson Bay Precincts. This will also allow time to consider the most appropriate form and pattern of residential development over this area.

Limiting the land available at any one time encourages a more compact residential neighbourhood to develop. Once the minimum threshold of residential development has been reached, a plan change can be notified in order to enable additional residential and non-residential development within the Future Development Special Area to proceed. The Special Area approach may be necessary to best manage this future planning.

Infrastructure resources will need to be available to provide for any expansion of development. It is expected that the primary future land use will be residential, although there will be substantial areas of open space, particularly in coastal locations, and also opportunities for mixed use development.