Simply A Numbers Game?

Smart Growth Implementation and the Determination of Open Space
Requirements in New Zealand

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ABSTRACT

This research is concerned with the New Zealand implementation of the USA-developed growth management tool known as Smart Growth, specifically in relation to the provision of open space at the local authority and community level. It uses Tauranga as a case-study as it is the first New Zealand city to seriously attempt to institute an urban growth strategy based on Smart Growth principles. This research examines current issues with respect to reserve provision in New Zealand where Smart Growth is implemented, and considers the possibility of alternative approaches to what is being currently used and proposed in the future that may be closer aligned to the demographic characteristics of intensified communities and the goals of Smart Growth.

Sources from the United States provide a limitless range of material advocating Smart Growth and its desired outcomes. There is little information in terms of the implementation of it, particularly in terms of specific aspects such as open space provision. The discussion draws upon both overseas and New Zealand literature to provide an origin for current approaches to open space provision. It becomes clear that the models used by many territorial authorities in New Zealand are based on demographic and community characteristics that hold little relevance in the twenty-first century.

It is thought that an alternative approach may also go some way towards providing territorial authorities such as Tauranga City Council (TCC) with a policy tool for providing open space that may be founded to a lesser extent on quantitative measures. Further it may provide guidance for other local authorities that are contemplating or are using urban growth management such as Smart Growth or any such approach that involves residential intensification. It is further hoped that this research will draw other useful conclusions regarding the general approach to reserve provision across New Zealand.

ACKNOWLEDGEMENTS

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1.0 Introduction

This research is concerned with the New Zealand implementation of the USA-developed growth management tool known as Smart Growth, specifically in relation to the provision of open space at the local authority and community level, using Tauranga as a case-study example. This research will examine current issues with respect to reserve provision in Tauranga where residential intensification will be implemented, and considers the possibility of alternative approaches to what is being currently used and proposed in the future that may be closer aligned to the demographic characteristics of intensified communities and the goals of Smart Growth. An alternative approach may also go some way towards providing territorial authorities such as Tauranga City Council (TCC) with a policy tool for providing open space that may be founded to a lesser extent on quantitative measures. Further it may provide guidance for other local authorities that are contemplating or are using urban growth management such as Smart Growth or any such approach that involves residential intensification.

Chapter One sets the scene in terms of the general growth issues facing Tauranga and the steps being taken to accommodate future growth. The provision of reserves is a small piece of a very large strategy which itself is derived from the particular growth issues facing Tauranga.

1.1 Tauranga: A Thumbnail Sketch

"Tauranga City is in the heart of the Bay of Plenty region. Tauranga City extends from the Wairoa River in the west to the Kaimai-Mamaku Ranges in the south and the Pacific Ocean on the north and east. People come to live here for 'the lifestyle' and they enjoy an ever-increasing number of 'bigger' city facilities and attractions." (Tauranga City Council, 2004)

Tauranga is one of the smallest of New Zealand's territorial authorities in terms of land area, covering an area of 12,742 hectares. In the Wellington Region, the Hutt City Council has a similar population at 95,473 (Hutt City Council, 2004), with a land area of 37,673 hectares (Local Government New Zealand, 2004). This is why Tauranga faces particular issues regarding growth and reserve provision because land is at a premium.

The city is located on the east coast of the North Island of New Zealand, and is 206 kilometres southeast of Auckland, and 107 kilometres east of Hamilton. Two key features dominate the landscape of Tauranga. The harbour, which is thought to have been part of a plain that was flooded following the end of the last ice age. Mt Maunganui, at 232 metres high and Mt Drury are remnants of an ancient volcanic area (Tauranga City Council, 2004). Figure 1 shows the location of Mt Maunganui, and Mt Drury surrounded by housing.

Figure 1: Mt Maunganui From the Air

SmartGrowth Bay of Plenty, 2004

Tauranga is one of the fastest growing areas in New Zealand. The 2001 census data shows that the population grew by 13,128 or 16.9% between 1996 and 2001 (Tauranga City Council, 2004). This is significantly higher than the nationwide growth rate of 3% over the same period. While population growth has generally slowed in New Zealand's 'sun-belt' regions over the last decade, Tauranga is the only one to have experienced a similar percentage increase in

population in the 1991-1996 to the 1996-2001 census periods (SmartGrowth Bay of Plenty, 2003). The term 'sun-belt' originates from USA, being the area extending from Virginia to Florida in the southeast and through Nevada in the southwest and also southern California (McLeay, 2002). Between 1970 and 1990 this 'sun-belt' area experienced population growth well above the national average. From its origins in the USA, the term 'sun-belt' is now applied to cities or regions that are attracting migrants and industry. Much of the attractiveness of these locales stems from their favourable climate. The western Bay of Plenty is one of New Zealand's 'sun-belt' regions along with the Far North, Thames Coromandel, Whakatane, Opotiki, Nelson City, Tasman and Marlborough. Between 1996 and 2001 47% of Tauranga's population increase was a result of internal migration.[1] Only 52,692 residents out of 90,906 (58%) currently living in Tauranga in 2001 lived in the city in 1996. Gains were found in all age cohorts, except the 20-24 year old class that recorded a net loss for the city. The biggest gain was in the 30-39 year old age cohort (Tauranga City Council, 2004). In the next 15-25 years this age class will account for the large proportion of Tauranga's population that is retired, affecting the nature of housing and public facilities required. Figure 2 shows the total population growth of the Tauranga District between 1981 and 2001.

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[1] 31% of population increase resulted from natural increase and 22% of growth was derived from overseas migration. Tauranga City Council, 2004.

Figure 2: Total Population of the Tauranga District

TOTAL POPULATION OF THE TAURANGA DISTRICT

POPULATION OF TAURANGA 1981-2001

Tauranga City Council, 2004
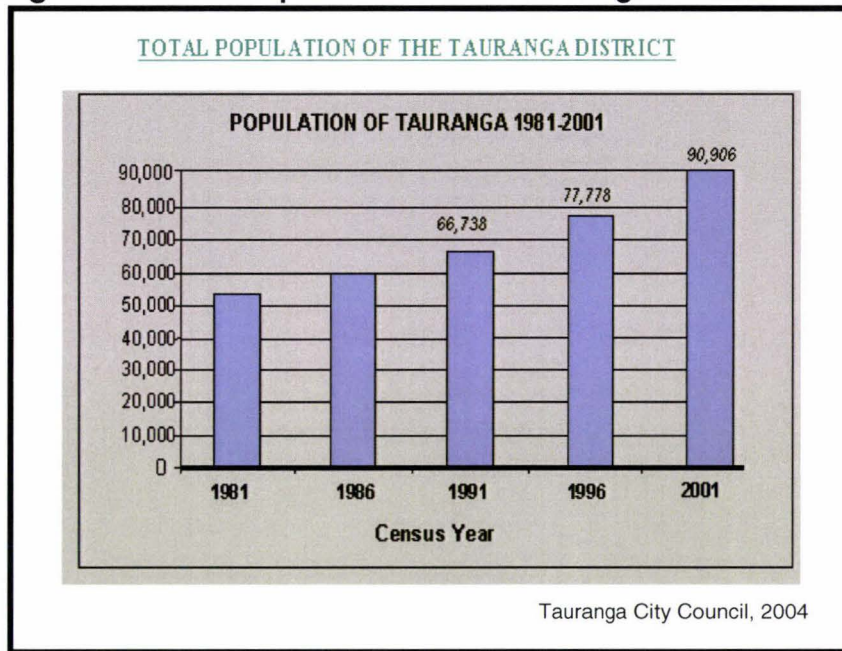
In 1989 the local authority reforms instituted by the Local Government (Amendment) Act 1989 amalgamated the former Mount Maunganui Borough Council, Tauranga City Council and Tauranga County Council. Much of Tauranga's rural-residential growth that occurred following 1989 was within the former Tauranga County Council areas such as Bethlehem and Papamoa. Tauranga's population reached 100,000 on or around March 2004, at which time Tauranga District Council became Tauranga City Council.

The Tauranga community consists of three distinct 'generation bulges' (Tauranga District Council, 2000). The 25-49 year age group accounts for the largest proportion of Tauranga's population, in a pattern that is similar to New Zealand's overall population. The 20-24 year old age group decreased from 6% of the Tauranga population in 1996 to 5% in 2001. The loss of young people from Tauranga can be attributed to tertiary education providers being located mainly in other cities, to the 'overseas experience' and to larger employment centres of Auckland, Wellington and Hamilton. As at the 2001 census, 17.2% of Tauranga's population is aged over 65, compared with a national figure of 12.1%. A University of Waikato Study in 2002 showed that people in the 35-50 year age bracket with children comprised the most significant additions to Tauranga between 1996 and 2001, exceeding the influx

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of retired over 65-year olds (Bedford, 2002). The study also found the main reasons attracting people to Tauranga was the lifestyle and climate, while most who left did so to pursue career and job opportunities elsewhere.

In the five-year census period between 1996 and 2001, Tauranga has had 19.3% growth, with 6,675 new dwellings being built. This percentage volume is comparable with more populous areas and large cities such as North Shore City, Auckland City and Christchurch City. In Tauranga 1,400 dwellings were built in 2002/03, compared with 1,057 in 2001/02. Figure 3 on the following page shows some more recent dwelling figures and also disaggregates the figures by zone. 'Res H' represents the higher density zoning (the 'Residential H' zone), where a minimum density of 1 unit per 100m^2 is provided for as a Controlled Activity in Mt Maunganui under the Tauranga District Plan. The majority of the residential areas in Tauranga are zoned 'Residential A', hence the high dwelling statistics in this zone.

Figure 3 : Tauranga District New Dwellings Created by Zone

Tauranga City Council, 2004
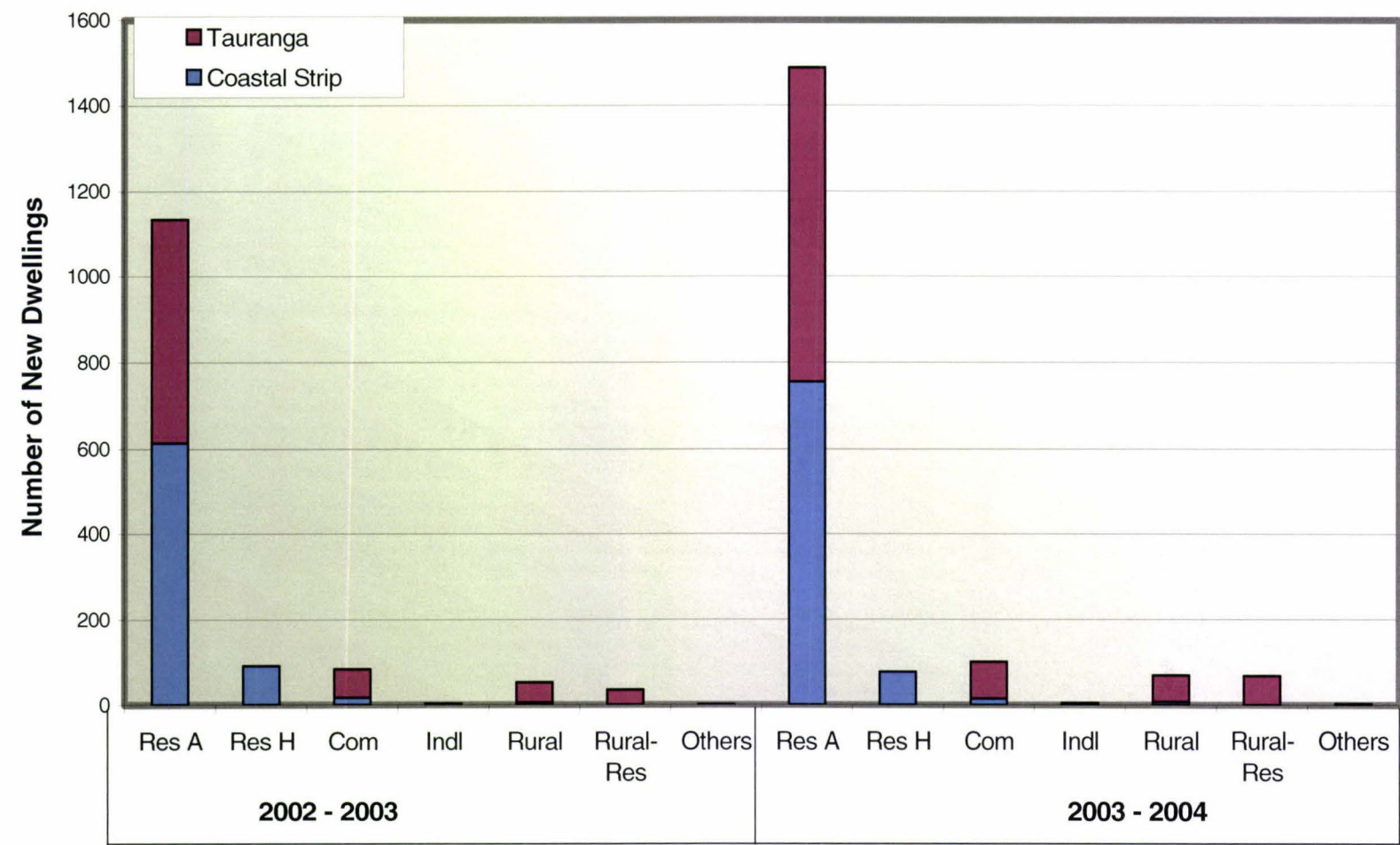
Parts of Tauranga are growing faster than others; with the older more established suburbs showing only small or moderate increases or decreases in population (Tauranga City Council, 2004). Accessibility to facilities and services such as schools, supermarkets, and reserves, is a major reason why people may chose to live in established areas of the city (Tauranga District Council, 2000). Other parts of the city have shown a moderate increase in population primarily due to infill residential development, including apartment, townhouse and retirement complex developments. The growth in dwellings in the following suburbs is representative of the 'moderate' increase in the census period between 1996 and 2001:

Bellevue +11.0%
Brookfield +7.7%
Omanu +6.1%
Mt Maunganui North +2.7%

These figures compare with new developing (greenfields) areas of the city, which are experiencing high growth rates. There was significant greenfields population growth between 1996 and 2001, with the largest increases in these areas:

Bethlehem East +371.5%
Bethlehem +24.2%
Pyes Pa +295.4%
Welcome Bay +27.6%
Te Maunga +32.8%
Papamoa West +96.8% (Tauranga City Council, 2004)

Figure 4 on the following page shows the location of both the developing greenfields areas and the 'moderate growth' suburbs.

Figure 4: Suburbs of Tauranga City
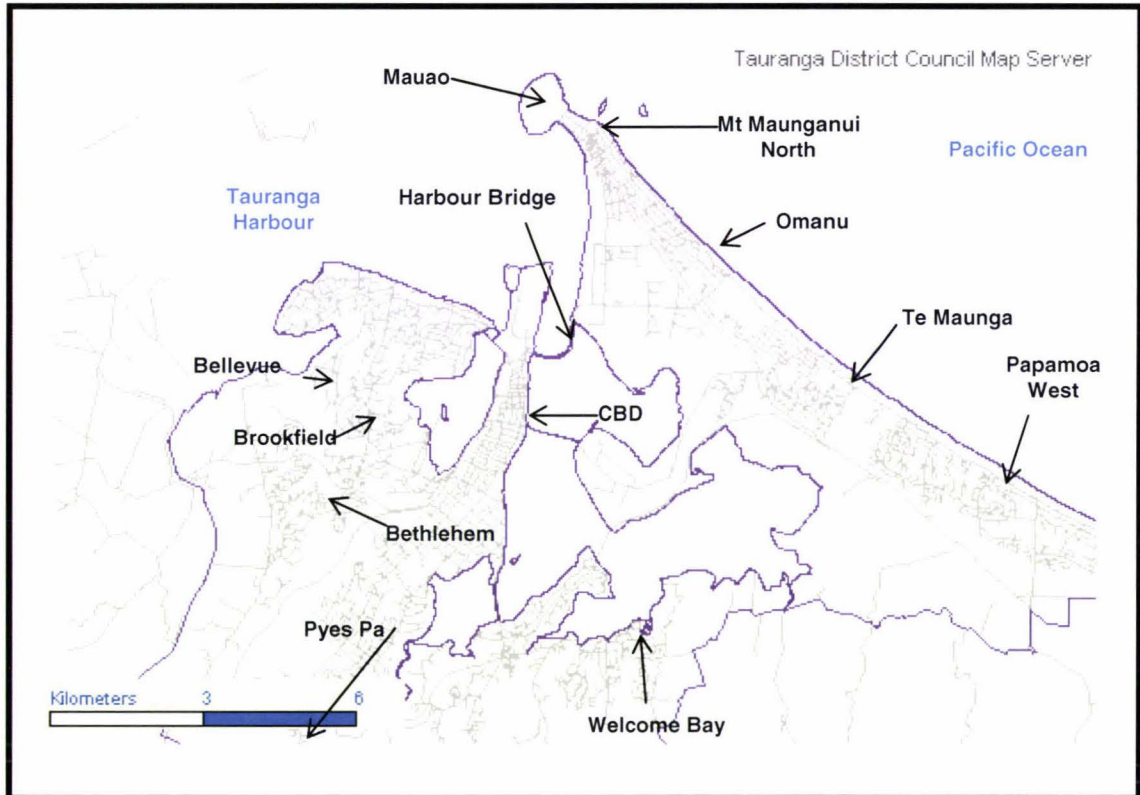
Tauranga has a high proportion of joined dwellings, which generally reflects a higher density lifestyle. The average proportion of separate dwellings is 79.6%, compared with 81.8% nationally. There is also an above average population density of 618.7 people per square kilometre compared with 14.5 people per square kilometre nationally (Statistics New Zealand, 2004). The higher than average population density may be attributable to some extent to the geographic limitations of the harbour and the relatively small land area of the city's jurisdiction overall. It also reflects Tauranga's 'retirement capital' status, which probably sees more people than on average living in retirement villages and apartments. The limit to Tauranga's growth in the past was always the existence of the high versatility land that surrounded it. This land was committed to productive uses, which in turn created employment. Prior to 1991, this meant that the land had to be protected as a matter of national importance under the provisions of the Town and Country Planning Act 1977. This preservationist approach has very likely carried over into existing regimes, as the past development of the land for productive uses would make it difficult and

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expensive to convert to residential uses. The recovery of the kiwifruit industry has probably also reinforced this trend.

Mt Maunganui North (the high density Mt Maunganui 'Residential H' zone) experienced a significant boom in the apartment market between 1996 and 2001, though an equally significant population boom did not accompany this; recording only 2.7% increase, compared with an overall 19% population increase for the city between 1991 and 1996 (Tauranga City Council, 2004). This is attributable to the high number of unoccupied dwellings indicating that much of recent development in Mt Maunganui North provides seasonal or holiday homes for people who ordinarily live outside the city[2]. The statistics indicate that in recent years greenfields development accounts for a large percentage of residential growth in the area. The Tauranga City Council State of the Environment Report (2000) found that the provision of community services and facilities is not currently meeting the pace of development in expanding greenfields areas such as Bethlehem and Papamoa. In the future Tauranga City Council, it if pursues its present policy approaches, will need to ensure that these areas continue to meet the needs of the recreational and social needs of these communities and are pleasant places to live.

The median income of Tauranga at the time of the 2001 census was $16,900 per annum, compared with the national figure of $18,500 per annum. Income is measured regardless of employment status, which includes National Superannuation beneficiaries. This group forms a high proportion of Tauranga's residents. The overall pattern reflects the fact that Tauranga currently has a larger proportion of retirees than the national average. The Statistics New Zealand (2004) Bay of Plenty Household Labour Force Surveys, for the March 2004 quarter, shows that there are 109,500 people employed and 7,800 people unemployed. The figures show that there are 61,000 people not in the labour force at all, within a population of 178,300 of working age. This equates to a labour force participation rate of 65.8% and an overall unemployment rate of 6.7%. The low labour force participation rate may be a

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[2] The 2001 census indicates that 30.1% of dwellings in the Mt Maunganui North Census Area Unit were unoccupied.

result of the high number of retirees in the area that still fit into the working age population category.

Tauranga is a fast growing city with some demographic peculiarities that have been described above. Though it is not only Tauranga City that is coming to terms with the impact of rapid urban growth. Western Bay of Plenty District Council is dealing with accommodating accelerating growth in historically rural centres such as Omokoroa, Katikati and Te Puke. The two local authorities are facing significant growth challenges within the geographic area constrained by the Kaimai Ranges to the south and the Pacific Ocean to the north. TCC and WBOPDC formed a partnership with Bay of Plenty Regional Council to address growth management from a sub-regional perspective.[3] It was intended that the joint partnership would ensure effective and integrated leadership in managing the long-term growth of the sub-region. SmartGrowth Bay of Plenty was a project aimed at providing strategic direction for the sub region over the next 50 years in terms of housing, employment, transport, industry, and community facilities.

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[3] Bay of Plenty Regional Council, Western Bay of Plenty District Council and Tauranga City Council jointly funded the SmartGrowth project in order to develop a coordinated approach to accommodating growth within the sub-region over the next 50 years.

1.2 SmartGrowth Bay of Plenty

The western Bay of Plenty sub-region has been developing ways in which it will direct its future urban growth in light of rapid development since the 1950s. The goal of SmartGrowth was to prepare an agreed action plan for the western Bay of Plenty sub-region that will make provision for sustainable urban and rural development, specifically for the next 20 years, and generally for the next 50 years. Figure 5 shows the extent of the western Bay of Plenty sub region and its location within New Zealand.

Figure 5: Western Bay of Plenty Sub-Region – SmartGrowth

SmartGrowth Bay of Plenty, 2004
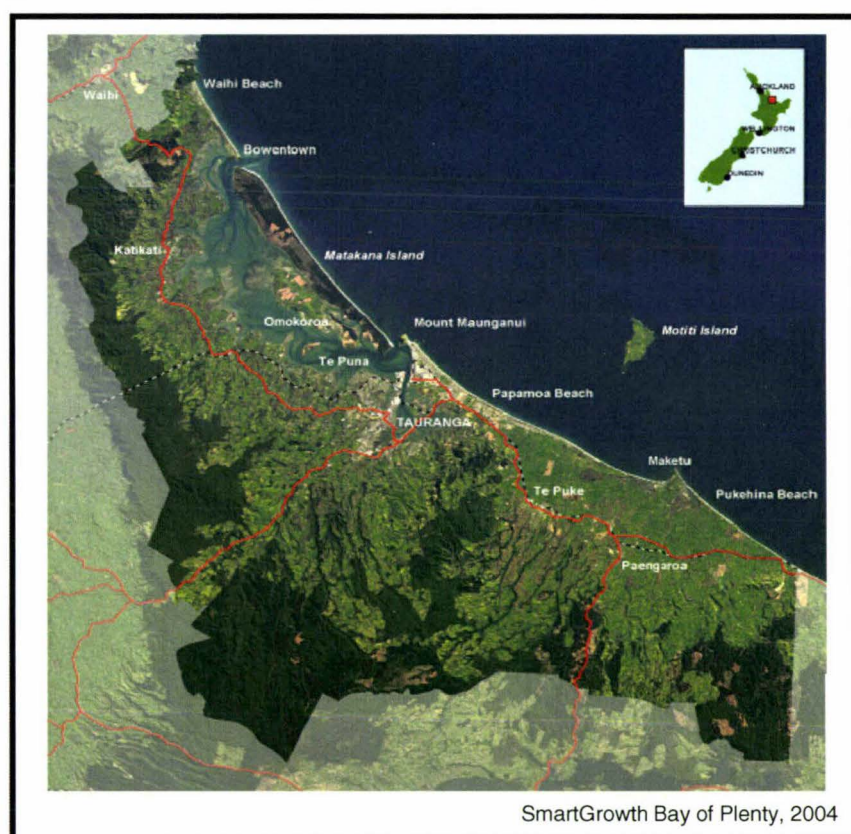
It is useful to gain a perspective of the likely population changes in the sub-region before considering the specific style of Smart Growth that will be implemented within Tauranga City. The modified net migration population forecast for the sub-region is as follows:

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2001: 130,000[4]

2026: 198,000 (+ 70%)

2051: 289,000 (+120% base 2001)

The 2051 figure of 289,000 is a predicted 120% increase from the base population in 2001. An additional 160,000 people in the sub-region equates to approximately 70,000 households and 60,000 new jobs. It is expected that households will change over time. Traditional families are likely to double in number, but single and two person households are likely to treble by 2051, reflecting the prediction of a higher cohort of retired population. (SmartGrowth Bay of Plenty, 2004). The western Bay of Plenty population is aging: 5,000 people were 80 years and over in 2001, increasing to 35,000 by 2051. As a consequence of this growth, by 2051 the following will be required to accommodate population growth:

- 4,000-6,000 hectares for additional housing;
- 1,000 hectares for additional industry;
- 1,000 hectares for sub-regional parks based on current policy[5]
- 650 hectares for recreation reserves based on current policy,[6] and
- 200 hectares if Tauranga Airport relocation is to occur.

The current residential and business land capacity will meet half of forecast land needs over the next 50 years. SmartGrowth is concerned with meeting these land use needs while also ensuring that by 2050 the western Bay of Plenty will be a unique sub region that has maintained and improved its natural and cultural environment, enhanced the lifestyles of its communities and provided for the social needs of its people (SmartGrowth Bay of Plenty, 2004). Other goals for the sub-region by 2050 include the provision of an efficient and affordable infrastructure, and the implementation of an efficient and integrated planning process for growth management. The SmartGrowth Strategy supports a fundamental shift away from focussing largely on accommodating low-density

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[4] The population of the sub-region includes both Tauranga City Council and Western Bay of Plenty District Council.

[5] The Sub-Regional Parks policy sets out the standards for regional park provision in the sub-region.

[6] Both Tauranga City Council and Western Bay of Plenty District Council currently provide reserves on a population: area ratio.

suburban residential development to supporting a more compact and balanced 'live, work and play' approach. The 'live, work, and play' approach is concerned with facilitating mixed use development, where communities can access home, work and open spaces within compact catchments, thus reducing energy demands from transport. The details of this approach, including the potential contribution that residential and public realm design guidelines can make towards meeting open space needs of the community and maintaining amenity values in areas of higher residential densities, is discussed in more detail in Chapter Three. The Sub-Regional Development Pattern Map for Tauranga City provides an indicative plan for growth in the sub-region to 2051.

Figure 6: Sub-Regional Development Pattern Map – Tauranga City
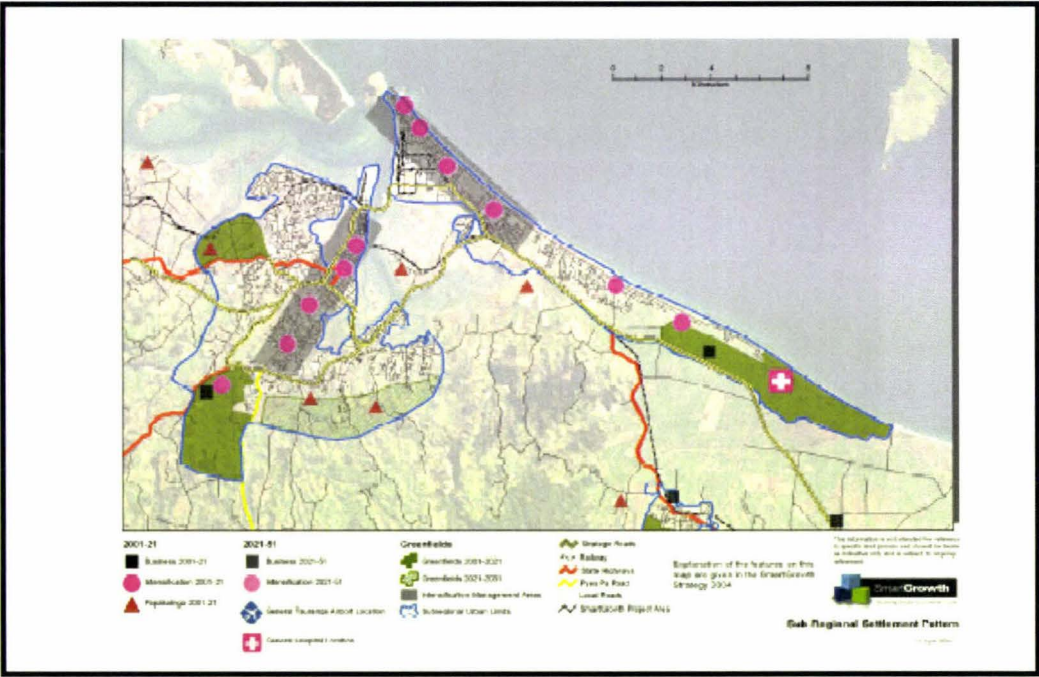
1.3 Reserve Provision in Tauranga

As part of its planning for future urban growth, TCC has researched current and future reserve provision across the city. Population projections have been matched to the reserve land bank to determine the adequacy of current supply.[7] From this TCC were able to identify areas where surplus and deficiencies are likely, based on TCC's methodology for providing reserves across the city.

TCC currently applies a level of service provision for active and passive reserves (based on population) as follows:

Passive Reserve: 1.7 hectares/1000 population
Active Reserve: 1.7 hectares/1000 population

Passive reserves provide space for casual play, relaxation, family activities and other forms of 'informal' leisure. Active reserves provide space for organised sport and associated facilities, such as playing fields, modified surfaces like tennis courts and club buildings. An active reserve can also fulfil a passive reserve function, but its primary purpose is not to provide for passive leisure opportunities.

The historical basis for this formula is expanded upon in following chapters. This formula is used in loose conjunction with TCC's Best Practice Guide for Neighbourhood (Passive) Reserves, to guide active and passive reserve provision across the city. It is this formula that indirectly provides an amenity contribution within new urban areas without great success – development contributions may not result in targeted spending i.e. the cumulative effects of many higher density developments, and may not consider specific residential amenity outcomes. The Best Practice Guide for Neighbourhood Reserves

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[7] Two scenarios were examined within each RIN; 1. Population projections based on status quo growth; and 2. Population projections based on residential intensification.

provides general guidance for the spatial distribution of reserves in the city, stating that there should be a neighbourhood reserve with a 400 metre pedestrian catchment. A travel cost method is used for playgrounds, where the policy states that there should be a local neighbourhood playground within 500-1000 metres of 'most' residences (Tauranga City Council, 2002). The theory behind the travel cost method is that neighbourhood reserves are intended to provide for the local open space and recreational needs of the immediate residential community and should therefore be located in easy walking distance for all residents (the Best Practice Guide for Neighbourhood Reserves is contained in Appendix Three).

Eng undertook research in 2002 using geographic information systems, to identify and assess the various constraints to the implementation of residential intensification nodes within what is now defined, by SmartGrowth, as Intensification Management Areas (Mt Maunganui and the Tauranga isthmus). One aspect of the research was an analysis of TCC's population projections against reserve supply and the application of a location allocation analysis to determine the adequacy of travel cost method recommended in the Best Practice Guide for Neighbourhood Reserves. That study concluded that while some of the proposed residential intensification nodes had an adequate long term supply of reserve land based on population projections, some of these nodes did not meet the travel cost method recommended in the Best Practice Guide for Neighbourhood Reserves. At a basic level, this research identified the potential to consider a wider range of criteria in the provision of reserves where residential intensification is implemented. The following provides a summary of the future reserve provision in four defined areas of the city that have been identified in SmartGrowth as short-term residential intensification nodes.[8]

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[8] Short term in SmartGrowth includes those areas earmarked for plan changes to allow mixed-use Residential Intensification between 2001 and 2021. The proposed location of the Residential Intensification Nodes is provided on page 14.

1. **Mt Maunganui Residential 'H' and 'A' Zones**: If residential intensification was implemented, this node would have a reserve deficit. There are areas of the node not well serviced by reserves in terms of the travel-cost method (south-east end). This is a part of the city that is well serviced by conservation reserve, such as Mauao itself, which covers 75 hectares. Mauao (Mt Maunganui) is a significant recreation resource that cannot be taken in to account in any active/passive reserve analysis. It is not accounted for in the levels of service and location allocation analyses because it is zoned 'Conservation' and partly managed by the Department of Conservation. The coastline and harbour edge can be informally included in terms of its contribution to recreation and amenity values in the node. The extent of the Conservation zoning within the Mt Maunganui 'Residential H' and 'A' zones shown on Planning Maps E2, S02 and S03 in Appendix One.

2. **Central Business District (CBD) Node**: It was identified that this node has an adequate provision of reserve land. Population projections for the node assessed against current levels of service show that the node would have a reserve surplus of 4.5 hectares (Eng, 2002). Tauranga and Wharepai domains provide 11 hectares of active reserve. The result of applying the location allocation analysis was that the western side of the node is not well serviced by reserves in terms of distance.

3. **Eleventh Avenue**: This proposed node is adjacent to the CBD Node in Tauranga. The population projections for this node reveal a passive reserve surplus of 4.7 hectares, while the node would have a deficit in terms of active reserves in the future.

4. **Bayfair**: This proposed node is located in Mt Maunganui. Residential intensification population projections for this node reveal that in the future there would be a reserve deficit of 2.5 hectares. The location allocation analysis shows that the node is almost entirely serviced by reserves within a 1,000 metre walking distance. Grenada Park provides extensive areas of active reserve. An aquatic centre is currently under construction

in the north western corner of Grenada Park, opposite Bayfair Shopping Centre.

The historical approach to providing reserves is based on a ratio of population to area, which is an entirely quantitative measure. A reasonable level of service is one that satisfies the needs of the community related to formal and informal recreation (Beca Carter Hollings & Ferner, 1996). This approach is certainly applicable where there is sufficient land to meet the demands of the population, such as in greenfields developments. In light of the above results, TCC is faced with the issue of obtaining further supply of land within some proposed RINs to meet the levels of service requirements as determined by the present policy. This measure does not take in to account the demographic of a community within the RIN, or the goals of Smart Growth. In order to solve the land supply dilemma and provide public reserves that meet the needs of the target community and the goals of SmartGrowth, there is a need to consider an alternative methodology for providing reserves within RINs. It is this issue that is central to this research.

1.4 Aim and Objectives

The aim of this research is to identify a possible alternative methodology for determining the provision of reserves within a Smart Growth lead development strategy with specific reference to Tauranga. This reflects the fact that to date Tauranga is the first New Zealand city to commit to an overall growth management strategy, which is based on a Smart Growth approach. If a standardised approach to reserve acquisition can be developed using a Tauranga case study, then its principles should have applicability in other New Zealand cities, which adopt a Smart Growth approach. The way in which this is to be achieved is explained in more detail in Chapter Two.

1.5 Significance of Study

The provision of open space is one of the issues for any council trying to advocate a higher density of development. It is hoped that this research will provide advice to practitioners in terms of implementing Smart Growth or any other policies that involve higher densities of residential development. It is also thought that this research will draw attention to the history underlying traditional mechanisms of providing open space, and critically assess the relevance of such approaches in terms of the characteristics of modern society.

1.6 Scope of Research

There is a range of limitations affecting this research. One is time constraint. The research was undertaken over a period of one year so this reduced the extent of detail that could be examined and provided. Cost was another limitation –a significant part of the approach recommended by CABE Space is an analysis using Geographic Information Systems. This research tool was not available due to cost and time constraints. A more in-depth analysis would also ideally include a public consultation aspect and may require a wider range of expertise than is available for a 100-point thesis.

2.0 Methodology

It is usual at the commencement of a piece of research to locate the problem being addressed within some theoretical framework. The issue this thesis deals with sites clearly within the concerns of planning practice, particularly the implementation stage. This effectively means that many of the theories of planning that deal with why planning is required are inappropriate, as they do not provide an adequate explanatory framework. In contrast, theory in planning explores how planning is undertaken. However this can then focus on specific aspects of planning such as collaborative planning, which in simple terms focuses on a process of planning that emphasises public participation and involvement. In contrast this research deals with an aspect of implementation of a determined planning strategy and as such seems to fit with the theory and model of normative planning, as normative theories are concerned with assessing or evaluating the outcomes of a plan or strategy. The normative model defines planning as a series of processes, including issue identification, research, implementation, and monitoring. An issue has been identified that will occur at the implementation stage of Smart Growth, and as such this research is concerned with investigating the means to ensure that one aspect of Smart Growth can be implemented.

As discussed in 1.4 above, the aim of this research is to identify a possible alternative methodology for determining the provision of reserves within a Smart Growth lead development strategy with specific reference to Tauranga. Addressing this aim requires a number of approaches, which are expanded upon as follows:

2.1 Literature Review

A literature review will be undertaken to establish the origins and nature of Smart Growth, including the experience in its application in the USA. The history and particularly identification of the origins of the techniques for the

provision of reserves and open space will be explored via the New Zealand literature and any pertinent overseas literature. The literature review will contribute most significantly to identifying the background to the issue of reserve provision. It will be supplemented by practice-based literature, which will look at current methods and will generally be accessed via the World Wide Web.

2.2 Desktop Study

The World Wide Web will be used to search for alternative assessment methods and approaches to reserve acquisition, particularly those used overseas. Emphasis will be placed on any successful methods that are used as part of Smart Growth. To expand on this, because this is an issue of planning practice, the desktop study will focus on looking for methods that provide examples of good practice. The desktop study will then be used to identify the most appropriate and/or relevant alternative assessment method for the purposes of this research, which leads in to the fieldwork aspect.

2.3 Fieldwork

The fieldwork will act as a test to evaluate existing reserves and possible reserve use in a local context, using the selected alternative assessment method. A particular focus will be on the features of the reserves that are not covered in the traditional quantitative analysis. From this it will be possible to determine the adequacy of current reserve assessment methods in relation to the implementation of Smart Growth in Tauranga, demographic characteristics of the population, and modern leisure activities.

2.4 Development and Application of An Appropriate Method

The application of one of the methods and assessment of its outcomes will provide the bases for a conclusion and recommendations. In choosing an appropriate alternative method, a range of factors will be considered. They will include such things as whether specific tools are required to undertake the assessment such as geographic information systems and the appropriateness of this for a 100-point thesis with reference to time and cost constraints, the complexity of the alternative methodology, whether it could be suitably applied at the local level which was preferable, or whether it is more suitably applied at the national level.

2.5 Research Process

A detailed outline of the process to be followed is as follows:

- An examination of the history of reserve provision in New Zealand, which forms the basis for current processes for reserve acquisition and decision making processes at territorial authority level, and the extent to which the New Zealand approach is influenced by overseas models;

- An explanation of Smart Growth in both the international and New Zealand contexts, including what its goals are and particularly the vision for more intensive styles of development. This section will elaborate on the type of Smart Growth that is to be applied in Tauranga, focusing particularly on the style of RIN development, and the potential contribution of residential design guidelines to open space values within intensively developed areas;

- An analysis of the recreational and open space needs of Tauranga in terms of present day demographics, the likely demographic of intensively developed areas, and the implications of national level strategic policy related to sport and recreation;

- A description of the legislative structures in place that guide reserve acquisition and payment in New Zealand, for example the Resource Management Act 1991, the Local Government Act 2002, and the Reserves Act 1977;

- An examination and assessment of some of the current overseas approaches to reserve provision, with a particular focus on those that are based on a more diverse range of assessment methods;

- From this research it should then be possible to apply an overseas alternative assessment method in New Zealand context as an alternative to the traditional quantitative approach where residential intensification is to be implemented, in order to establish its appropriateness;

- Analyse the results of the application of an alternative assessment method in terms its ability to meet the matters raised in the literature review, such as the goals of Smart Growth;

- Make recommendations regarding the use of alternative methodologies for providing open spaces in intensified areas, including the ideal type of document that any alternative assessment methods might fit in to, whether statutory/non-statutory strategic document or other;

- Also to make further recommendations in terms of general alternative methodologies that may be applied in other areas. For example, residential intensification has put the spotlight on the problem and this could represent a shift in open space policy on a wider basis.

3.0 Smart Growth: A Review of Literature and Sources

As an outcome of sustainable development and Agenda 21 initiatives during the 1990s, a number of Western countries such as the United States (USA), Britain, Australia and New Zealand began to identify that urban development patterns were inefficient. These inefficiencies arose from land use, transport, and travel times. Smart Growth in USA, Urban Renaissance in Britain and associated residential intensification techniques were initially a response to the effects of urban sprawl.

3.1 Smart Growth Theory

In the USA, urban expansion in the early 20th century occurred alongside the expansion of America's middle class and its desire to rise above urban, working class conditions (Bressi, 1994). The most powerful symbol of the middle class, the single family detached house surrounded by ample open space and division from neighbours, has roots in Victorian-era mythology. The home was seen as an icon of protection for the nuclear family from the industrial city's evils. The middle class' ability to move to suburban single-family homes was facilitated by transportation innovations. Before the 1920s most suburbs grew in conjunction with the extension of streetcars and railroad lines, and suburbs developed with a strong relationship to the distance someone might comfortably walk between home and a streetcar stop. Following World War I suburban growth was shaped by automobiles, which opened extensive amounts of land for development. The business of making and sustaining the suburbs boosted the economy. Private vehicle ownership skyrocketed and government responded by building networks of boulevards, parkways and expressways that facilitated dispersing development in an increasingly wide and thin fashion.

The history of land use and development in New Zealand largely represents the origins of British town planning as being a state intervention made essential by the public health concerns of the Victorian city (Miller, 2002). The nature of resettlement in New Zealand through the post war years echoes that of the

USA, as new and extensive areas of land were made available for development by transport innovations. Another driving force was promotion of the nuclear family and the sanctuary that facilitated this was offered in the rapidly expanding suburbs. Government intervention through state housing programmes facilitated the nuclear family concept, but also contributed to urban sprawl.

3.1.1 Sustainable Development

Following recommendations in the Brundtland report of the World Commission on Environment and Development (WCED) in the late 1980s, many international agencies and governments have adopted the principle of sustainable development (Memon & Perkins, 2000). This is a strategy designed to meet the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). The fundamental aims of sustainable development include preserving, enhancing, and interrelating economic prosperity, the integrity of natural ecosystems, and social equity (Porter, 2002). Ideally, sustainable development is a dynamic process that enables all people to realise their potential, and to improve their quality of life in ways that simultaneously protect and enhance the earth's life support systems (Forum for the Future Annual Report, 2000). These broad goals can apply to global and national as well as local development (Porter, 2002). Many sustainable development aims are reflected in Smart Growth principles, and the sustainable development aspects of the movement are often stressed. As Talen and Knaap (2003) note when discussing the nature of Smart Growth principles "most of these principles, whether labelled 'growth management', 'smart growth' or 'sustainable development' are undoubtedly viewed by many planners as simple good planning practice" (Talen & Knaap, 2003, p346). Therefore it is possible to regard Smart Growth and its principles of a popularisation of good practice that are already being used, albeit perhaps not in the same combinations as under Smart Growth. Porter (2002) states that Smart Growth is about taking a strategic rather than ad-hoc approach to accommodating and facilitating development. This includes development within existing urban areas, and to a lesser extent within greenfields sites. In the

USA, advocates of Smart Growth may promote different aspects of the concept. This can include smart growth as a way of protecting open space and natural resources, or as a mechanism for giving developers the flexibility to mix uses and increase the range of housing choices in their projects. It is important here to distinguish Smart Growth from other approaches to sustainable urban development. Another approach to the implementation of sustainable development in cities is a term known as Urban Sustainability. While Smart Growth is essentially about facilitating growth on a more regional or sub-regional scale, urban sustainability with a greater focus on land use practices to curb growth and amend existing practices to become more sustainable. Smart Growth also recognises that there are strong links between social, economic and environmental aspects, in contrast to urban sustainability that focuses on physical and environmental sustainability. Smart growth calls for building communities that are more hospitable, productive, and fiscally and environmentally responsible than most of the communities that have developed over the last century. Smart Growth America defines itself as a nationwide coalition promoting a better way to grow; one that protects farmland and open space, revitalises neighbourhoods, keeps housing affordable, and provides more transportation choices.[9]

Despite the popularity of the Smart Growth movement there is only limited academic literature available at this point in time. The populist and often political nature of Smart Growth in the USA means that there is a strong concentration on promoting the concept and providing 'toolkits' to aid its implementation. Examples of this are on the Smart Growth America website and Smart Growth BC which is the Canadian equivalent. When reviewed critically, these 'toolkit' documents do little to assist beyond making some process and policy suggestions and directing the reader to more websites. Most of the studies to date are either advocacy of the adoption of Smart Growth (see Baker, 2003) or accounts of its adoption (see Talen & Knaap, 2003, Daniel, 2001 add Bunce, 2004). The lack of information on how to actually implement Smart Growth is probably because as Talen et al put forward, Smart

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[9] Smart Growth America is a nationwide coalition responsible for Smart Growth research and guidance.

Growth exemplifies processes that have been in place for a long time, just in a new combination. Smart Growth is the latest in a range of tools to control urban growth. All of the different urban growth tools such as Smart Growth and Urban Sustainability have been developed in a quite different administrative and political system to the one we have in New Zealand.

3.1.2 Smart Growth Defined

Smart Growth is a term that was developed in the USA during the 1990s and by sustainable development. It arose after concern about loss of quality of life and prosperity, as a result of rapid urban growth and urban sprawl (SmartGrowth Bay of Plenty, 2004). In particular there were concerns about:

- Traffic congestion
- Loss of open space, farmland, habitat
- Infrastructure costs
- Inner city decline.

Porter (2002) describes Smart Growth as:

"...*development that accommodates growth in smart ways, which is to say in economically viable, environmentally responsible, and collaboratively determined ways.*"

Smart Growth is a movement focused on promoting urban development that is compact, diverse and walkable as opposed to car-dependent and land-consumptive (Talen, 2003). It seeks to rebuild existing cities rather than building more peripheral, single-use housing developments and their associated commercial centres. Porter (2002) contends that development that is in accordance with the key principles of Smart Growth should result in well-designed, multi-use communities that offer people a range of options for living, working, recreation and travel. These principles can guide development in greenfields on the edges of urbanised areas as well as infill redevelopment in cities and suburbs (Porter, 2002). Coincident with this movement, Smart

Growth research often seeks to verify the validity of its goals by building predictive models, conducting policy impact achievements and generally trying to explain and/or justify Smart Growth's achievements and potential or realised effectiveness (Talen, 2003).

Smart Growth has been widely used with varying success in the USA. The Environmental Protection Agency awards successful Smart Growth initiatives, with 2002 winners being in Virginia, California, Colorado and Massachusetts. Arlington County's (Virginia) and the Rosslyn-Balston Metro Corridor won the Overall Excellence in Smart Growth Award. Arlington's planning approach places dense, mixed-use, infill development at five metro stations and tapers it down to residential neighbourhoods. The aerial photograph of Arlington County on page 28 demonstrates the effectiveness of Arlington's approach around the Rosslyn and Court House Stations. It also shows that Smart Growth can result in a wide range of housing types from apartments to townhouses and single-family detached homes (Smart Growth, 2003).

Figure 7: Arlington County, Virginia

Smart Growth America, 2003

In New Zealand, the Smart Growth approach is in its early stages of development and implementation in some cities attempting to deal with sprawling urban growth.

3.1.3 Smart Growth in New Zealand

The New Zealand government recognises that it has a key leadership role of articulating outcomes and directions for New Zealand. It has developed the Sustainable Development Programme of Action (2003), with one of the focus issues being sustainable cities. The sustainable development approach is seen as the most appropriate to help government find solutions that provide the best outcomes for the environment, the economy and New Zealand's increasingly diverse society. It is thought that cities are essential places to achieve sustainable development because most people live there and much economic activity is centred on urban areas. The Local Government Act 2002 provides a new purpose for all local authorities, which is based on sustainability principles. The purpose of local government includes democratically promoting the social, economic, environmental and cultural wellbeing of communities, now and for the future. Central Government is taking the lead in promoting the sustainable development approach in policy and decision-making, and a similar shift has occurred in some regions dealing with high levels of urban growth such as

central and west Auckland and the western Bay of Plenty sub-region. Central Government and local authorities, which have taken a metropolitan approach to growth management, have been increasingly working together to address issues of concern. This partnership approach is also part of the new approaches to sustainable development outlined in Sustainable Development: Programme of Action.

The Auckland Regional Council, in partnership with the region's territorial authorities, formed the Auckland Regional Growth Forum. From that the Auckland City Council developed a Growth Management Strategy and a Liveable Communities Strategy, which aims to allow a higher density of growth within selected areas of the city. Protecting the city's natural environment is a significant driver of the programme to build a compact city. Growth is to be focused around town centres that can provide services, and densities increased in those centres so that there are sufficient people and activities to support passenger transport (Auckland City Council, 2004). This will result in the coordination of growth areas with passenger transport and infrastructure – putting them close to rail stations and getting bus routes in to town centres to reduce use of the private passenger vehicle. As such it is a strategy that is very close to the Smart Growth approach.

This research is concerned with the implementation of Smart Growth in the western Bay of Plenty sub-region, with a specific focus on implementing residential intensification within Tauranga City Council's jurisdiction. Many of the principles of Smart Growth can be promoted by attaining efficiencies in development (Porter, 2002). Accommodating growth through infill development and the redevelopment of vacant and under-used properties means less need to expand infrastructure systems and convert rural land to urban land uses.

3.1.4 Residential Intensification

Smart growth encourages more growth in urban areas and less growth in non-urban areas because of the advantages of utilising existing infrastructure. This sentiment is central to the implementation of residential intensification. Residential intensification supports the creation of new living accommodation by 'infilling' within existing neighbourhoods and communities (Epp *et al*, 1996). Intensification nodes are defined areas where a higher density of development is facilitated, normally strategically located near existing urban land uses and connections, most often focusing on housing (Porter, 2002). The technique can be used to revitalise and introduce diversity to 'monofunctional' urban and suburban contexts, and can accommodate a diverse population (Epp *et al*, 1996). In line with Smart Growth principles, the intent of residential intensification is to make suitable use of land and infrastructure, to create a sense of community, to reduce energy demands, to reduce real estate and housing costs, and to reduce development demands on greenfields sites.

In New Zealand, elements of the Smart Growth approach to residential intensification nodes are being researched and implemented, via the Auckland Regional Growth Forum in collaboration with the region's territorial authorities. Auckland City Council is particularly concerned with absorbing all new residential development within existing urban areas through the Liveable Communities Strategy. Waitakere City Council encourages medium density housing developments through District Plan provisions and Council programmes aimed at upgrading existing urban areas. This form of development is encouraged on sites near main transport routes, railway stations, public transport routes and existing town centres (Waitakere City Council, 2004). Control over the appearance and location of these developments is reserved by the Council via a series of medium-density design guidelines and landscape treatment documents. Though smaller than the Auckland Region, the western Bay of Plenty sub-region is faced with similar issues in terms implementing residential intensification in the future, particularly within Tauranga City.

TCC has a vision for the implementation of SmartGrowth in the city. It is envisaged that SmartGrowth will develop an integrated strategy that addresses the range of physical, economic and community factors that face the city. Conceptually the SmartGrowth strategy is to be founded on the principles of sustainable development as referred to earlier, and will develop economic, social and environmental outcomes. The summarised form SmartGrowth Action Plan is based on a number of general topic areas, which cover both policy and process.

1. Implementation Committee: The collaboration of key partners (including the local government authorities involved) will be crucial in terms of the success of implementing SmartGrowth. This will involve monitoring milestones and reviewing the strategy as circumstances change over time.

2. Sub-Regional Settlement Pattern: SmartGrowth's planned sub-regional development pattern will be formalised through the Regional Policy Statement. This will provide a framework for the long-term implementation of SmartGrowth and it is anticipated that the Regional Policy Statement guidance will provide some level of certainty for the market in terms of land use.

3. Iwi and Hapu Management Plans: These will provide a basis for tangata whenua decisions regarding their protection and development aspirations, which will feed in to the overall strategy by defining cultural constraints to future growth and development.

4. Greenfields Residential: Timing, location and design will have to be carefully planned to ensure that there are no constraints to land supply and local authorities are able to achieve efficiency in service provision.

5. Business Land: The provision of business land will need to be in balance with residential development – according to SmartGrowth, historically the western Bay of Plenty sub-region has not made provision of business land to the extent required.

6. Strategic Roading Network (SRN): There is public commitment to the long-term roading strategy. SmartGrowth will rely on the continued implementation of the SRN.

7. Public and Active Transportation: SmartGrowth will encourage and facilitate increased use of buses, cycling and walking as viable alternatives to private vehicles within the sub-region. This will rely to some extent on the provision of mixed uses within wider residential areas.

8. Wastewater Disposal: A goal of SmartGrowth is to reduce waste, and to encourage a holistic water-cycle approach in greenfields areas. There will also be increasing use of emerging environmentally sound technologies.

9. Economic: SmartGrowth and a 'Smart Economy' will maintain an alignment of various linked actions, including business land development, Maori development zones and infrastructure.

10. Open Space and Leisure: The 'live, work, and play' concept will be reliant on a high quality provision of open space, arts and leisure opportunities. SmartGrowth considers this to be a key quality of life indicator. Open space can also balance urban form.

11. Intensification Management Areas: These areas are proposed for Mt Maunganui and the Tauranga central isthmus. A vision and implementation plan will be developed for urban design, transportation network, open space and recreation. Specific areas for intensification will be defined and the implementation committee will provide draft policies ready for public consultation.

Implementation of SmartGrowth intensification management areas within Tauranga City Council's jurisdiction is a key focus of this research, specifically the provision of open spaces within mixed-use 'Residential Intensification Nodes' (RINs).[10] The sub-regional development pattern (Figure 6 page 13) shows the intensification management areas in grey, and provides an indicative location for RINs, either 2001-2021 or 2021-2051. The proposed short term RINs in Mt Maunganui are the Mt Maunganui Residential 'H' and 'A' zones and Bayfair.[11] Proposed RINs in Tauranga are the Central Business District and

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[10] For the purposes of this research, 'Open Space' is defined as both active and passive reserve, playgrounds, neighbourhood reserves and streetscape improvements.

[11] The Mt Maunganui Residential 'H' Zone has a current minimum density of 1 unit per 100m^2 as defined by the Tauranga District Plan. The Residential 'A' Zone covers the residential zoning for the remainder of the suburban residential areas of the city, with a minimum allowable density of 1 unit per 325m^2. Residential intensification would allow a minimum density of 1 unit per 250m^2 within this part of Mt Maunganui, adjacent to the Mt Maunganui

Eleventh Avenue. It is assumed that a RIN will involve clustered development around 10 minutes walk from public transport, commercial activities and open space (SmartGrowth, 2004). The density of this type of development is at least one unit per 325m^2, but typically one unit per 100-250m^2. Examples are terrace or row housing and low-rise apartments. Figure 8 on page 34 contains visual examples of the different types of housing density, used by the Auckland Regional Growth Forum. Implementation of RINs in different parts of Tauranga will aim to harness the growing demand for a more intensive style of development (Hill Young Cooper, 2002).

Tauranga has some unique features that set it apart from the intensification occurring in other centres. Tauranga is likely to attract people who wish to live in a smaller unit because of:

- Retirement: Older adults looking for a smaller unit close to shops and activities
- It is a holiday centre, providing holiday homes especially for people wishing to holiday near the beach.

The present focus of the intensive housing market is on the retirement and holiday home sector; under SmartGrowth this focus is expected to broaden, though the Strategy does not appear to contain any policies or goals to facilitate this. Other demographic groups in the community are expected to increase their interest in RINs as the community increases its acceptance of more intensive styles of development and lifestyles change. A local community's acceptance of a more intensive style of housing is reliant on Council investment in the area to manage the quality of development.

Councils such as TCC have an agreed process for providing reserves and community facilities for public use. The provision of these facilities is relevant where a more intensive style of development exists, particularly because residents who live in these areas may be willing to trade off their private open

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'Residential H' Zone. District Plan changes to the other proposed nodes mentioned would also allow a minimum density of 1 unit per 250m^2.

space for other forms of public amenities. Open spaces are also important to offset the built form in areas of relatively intensive development, by providing visual breaks or backdrops and contributing to overall amenity values within RINs.

Figure 8: Illustrations of Residential Development Types in the Western Bay of Plenty

SmartGrowth Bay of Plenty, 2004
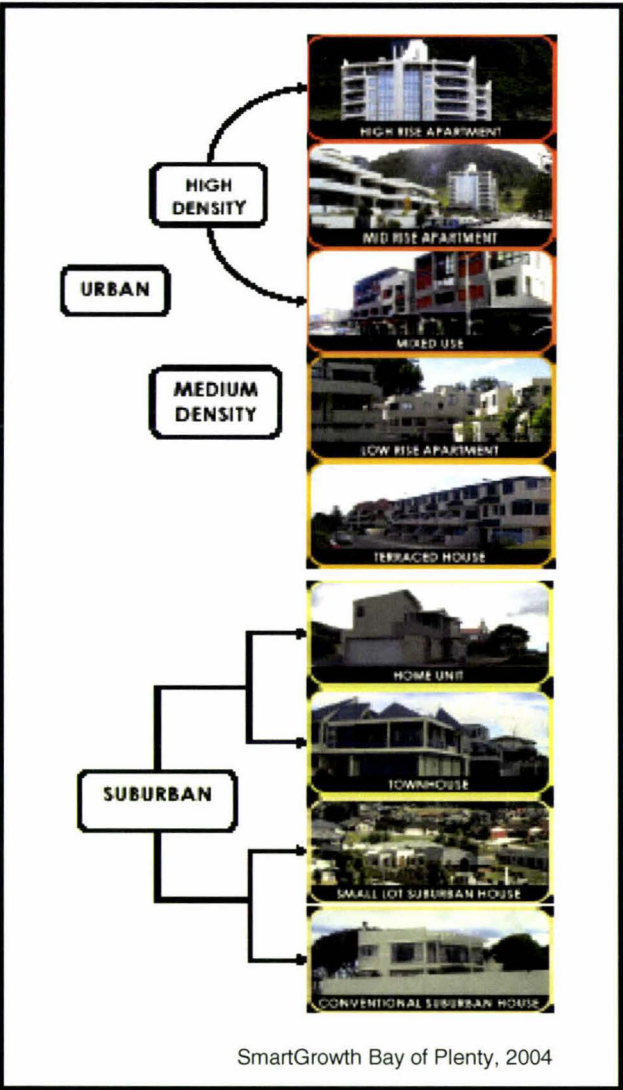
As indicated earlier, community acceptance of more intensive styles of development is dependent to some extent on Council investment in the quality of development. Under the SmartGrowth proposals high standards of urban design are to be achieved through detailed local area planning and design policy and guidelines (SmartGrowth, 2004). Design guidelines will be provided as part of District Plan amendments to ensure functional outcomes are

achieved on the ground. TCC have yet to develop any residential design guidelines in association with implementing SmartGrowth. The SmartGrowth Strategy Actions for Intensification Management Areas identify that an emphasis on urban design is important for achieving good quality outcomes, and detailed examination of these issues is required as part of policy development for specific areas (SmartGrowth Bay of Plenty, 2004). Identified urban design issues include:

- Street orientation of buildings
- Building design issues
- Construction issues and sound proofing
- Land title issues
- Public domain including street planting
- Encouraging comprehensive development.

Promotion of urban design, particularly in public spaces, may include the establishment of design guidelines and a guidance panel (SmartGrowth, 2004). Additional urban design expertise will be added to TCC partly based on this SmartGrowth implementation action and the Tauranga District Council Residential Intensification Draft Policy Paper (2002).

SmartGrowth has recognised the links between urban design of dwellings and the quality of the public realm. For clarity, one part of the quality of the environment is what the Council does in the public realm and the other part is the quality of the design of the intensive housing. For example, do they have balconies or any form of private open space, are they constructed of pleasant materials and are there any residents' areas within the site to which the residents alone will have access? The relationship between quality urban design and quality design of the public realm are two aspects of a potential trade off for less public open space. TCC has undertaken some investigation in reserve provision in anticipation of implementing RINs and the implication of increased population density within RINs.

3.2 Implementation

With respect to the implementation of residential intensification policy, the western Bay of Plenty's SmartGrowth Strategy supports a fundamental shift in growth management strategy from one focussed on accommodating low density suburban residential development to one supporting a compact 'live, work, and play' concept (SmartGrowth Bay of Plenty, 2004). The 'live, work, and play' concept is one that emphasises the need for balance within the management of growth. At the local level it includes providing the opportunity for people to meet most of their daily needs within their own local community, promoting cohesion and more harmonious lifestyles. It includes careful design to contribute more to the public realm, provide for privacy, and diversity through mixed use development. The 'live, work, and play' concept may be a departure from historical approaches to suburban development, but in some respects it is relates to historical theory on the interaction between the public realm and the built form.

Keeble (1976) discusses the interaction between the built form and open spaces; that in laying out a new town it is most desirable if the elements can be designed in to a system. Closely built up areas and open areas supplement and contrast with each other visually in a relationship somewhat similar to the voids and solids of a building, in which there is a considerable measure of linkage between different items. The Ministry for the Environment (2004) published a Draft New Zealand Urban Design Protocol in October 2004. The document identifies six attributes of successful towns and cities, noting that they incorporate economic, environmental, social and cultural factors, drawing on the Sustainable Development: Programme of Action (SDPA). The SDPA specifically refers to urban design as a core sustainable development issue because it is often intergenerational in effect (Department of Prime Minister and Cabinet, 2003). It has a strong influence on community identity and quality of life and it contributes to a city's economic efficiency and effectiveness. Quality urban design is a common factor to all six attributes of successful towns and cities (Ministry for the Environment, 2004). High quality design of urban

spaces, places, buildings and networks are an essential building block upon which many other attributes of successful towns and cities are built. The six key urban design qualities identified in the Draft Urban Design Protocol include:

- Context: Quality urban design is about seeing buildings, places and spaces not as isolated elements but as part of the whole town or city
- Character: Quality urban design reflects and enhances the distinctive character of our natural environment, heritage and kiwi culture
- Choice: Quality urban design is about planning for diversity and offering people choice within our urban areas
- Connections: Good connections enhance choice, strengthen transport networks, support social cohesion and make places lively and safe
- Custodianship: Quality urban design reduces the environmental impacts of our towns and cities through environmentally sustainable and responsive urban design solutions
- Collaboration: Our towns and cities are designed incrementally as people make decisions on individual projects. Quality urban design requires good communication, real dialogue and a shared vision and understanding among those making decisions.

In terms of the dilemma faced by TCC providing open space within the RINs, much can be achieved through appropriate design of the built form in order to maximise open space. It was mentioned earlier that the relationship between quality urban design and quality design of the public realm are two aspects of a potential trade off for less public open space. Documents such as the Draft Urban Design Protocol may provide guidance on how best to maximise complimentary relationships between the built form and public space. TCC has provided some indication of the ways in which it will use residential design guidelines in RINs that may go some way towards solving its open space dilemma, through the TDC Residential Intensification Draft Policy Paper (2002). This document identifies that design control is about managing development to avoid, remedy or mitigate adverse outcomes in terms of the amenity of a neighbourhood —an approach consistent with the Resource Management Act

1991. This includes factors such as daylight and sunlight access, privacy, outlook, outdoor space, parking and access, and street presence. Currently the operative Tauranga District Plan (TDP) does not use design-based controls to manage development. The design of a development is influenced by the development controls of the TDP, but only indirectly. In the 'Residential H' zone of the city (the current medium to high-density zone) these are more limited development controls. No design-based controls are yet in place and this is likely to occur as part of the Resource Management Act Tauranga District Plan change process. The timeline for this suggests that the plan changes to provide for residential intensification will be publicly notified around 2007.

Design guidelines hold even greater meaning within areas where there is reduced private open space and a higher density style of residential development within isolated parts of a city. There is a need to balance the built form with open space of some form. TCC has identified examples of existing intensive developments in the 'Residential H' zone that do not contribute positively to the amenity values of the neighbourhood. With these concerns in mind, it has raised a number of conceptual design controls for implementation within RINs.

In its Residential Intensification Draft Policy Paper, TCC highlights the following items as the main issues in design controls for intensive developments. The items relevant to this research are:

- Neighbourhood character: The appearance of developments from the street, active frontages, retention of existing features such as trees. New street and walkway connections are also important. The USA implementation of Smart Growth emphasises this element as a way in which to retain the historic character of neighbourhoods in areas of new intensive development. The local example is different: Tauranga is relatively recently settled and does not feature abundant historical character in its residential areas. TCC will need to approach neighbourhood character from a forward-thinking perspective –how will neighbourhood character be achieved and enhanced within RINs?

- Visual and acoustic privacy and outlook: Amalgamation of large sites for comprehensive developments can reduce the occurrence of 'back-to-back' housing. Figure 9 provides an example of a development breaking the 'back-to-back' rule

- Landscaping and 'greenness': From a review of existing high density residential developments in Tauranga, a pattern emerged that there is a desire to maximise development, and no controls on building coverage or minimum areas of landscaping sees most higher density housing sacrificing landscaping for development. Landscaping will be reviewed for its extent, and the treatment of large areas of hard surfaces.

Figure 9: Breaking the 'Back-to-Back' Rule

Tauranga District Council, 2002

Figure 9 is an example of a medium density development in the Mt Maunganui 'Residential H' zone. It breaks the 'back-to-back' rule, meaning that the sets of units overlook other units on adjacent and adjoining sites (Tauranga City Council, 2002). This consequently reduces the street appeal of the development and its contribution to amenity values and open space in the area. Figure 10 provides a comparison of the way in which small changes to the design of a development and attention to landscaping can make a difference to the street appeal and contribution of a development to open space values in a locality. Both developments also address the street rather than turning away from it as in the development in Figure 9.

Figure 10: Street Orientation I

Tauranga District Council, 2002

Figure 11 below shows the way in which attention to detail can reduce the dominance of garages in a street, and the difference that this can make in terms of improving the street appeal of a medium density development.

Figure 11: Street Orientation II

Tauranga District Council, 2002

Intensification provides an opportunity to significantly enhance the street environment. Through traffic calming, street trees and the arrangement of on-street parking areas, there is considerable potential to strengthen the visual amenity of a neighbourhood. This is evident in figures 9-11 above. In TCC's situation it is considered that design controls will be most appropriately

implemented through statutory provisions. This provides certainty to the community and the market place about urban design outcomes and ensures a regulatory bottom line. Any design controls would apply to all forms of intensive development to avoid the good intentions of design control being undermined by bad examples and inconsistency. It would also reduce the likelihood of developers preferring to build in areas that are not subject to design controls in order to reduce compliance costs. This concern is particularly important if design controls are relied upon to any extent for their contribution to open space in RINs where quantitative levels of service requirements cannot be met. The implementation of design controls in areas of intensive development obviously requires local interpretation to ensure that the controls reflect local conditions.

TCC has raised the likelihood of developing neighbourhood plans to guide the implementation of RINs. These documents would integrate design controls and TCC's approach to open space and recreation. The neighbourhood plans will need to be consistent with higher-level strategic documents such as open space strategies. They will be non-statutory guides as to how development should fit into a neighbourhood, and the actions that TCC will need to take to upgrade the street environment, town centre, open spaces and infrastructure. There are some challenges to implementing the strategic goals of Smart Growth using traditional measurement techniques. This has certainly been highlighted by the difficulties faced by TCC in meeting its quantitative levels of service requirements within the proposed Bayfair RIN. Some overseas literature suggests options that some of the difficulties in implementing Smart Growth lie in a traditional reliance on quantitative measurement.

3.3 Smart Growth Challenges

A more refined methodology is required in measurement of urban spaces if Smart Growth research is to be implemented successfully. The focus should be on breaking down and revealing the urban pattern in meaningful ways. Meaningful means that existing methods should be drawn upon to develop an approach that is specific to the goals of Smart Growth. This is then recognition

that any measurement of the urban form implicitly entails a subjective view about what is of value in the urban realm and what is therefore worthy of measurement.

Smart Growth is established in normative ideals, which are definitive ideals about how cities ought to develop (Talen, 2003). In Tauranga, the provision of open space within RINs should then be flexible to normative theory, which is less dependent on quantitative methodology in order to be consistent with the inherent goals of Smart Growth. Theories about how cities function should be supported by theories about how they ought to function, consistent with a normative approach. Smart Growth theory is inherently normative. Its research can be strengthened by starting with an idea about what the city should consist of in normative terms. This is certainly the approach that has been adopted by western Bay of Plenty's SmartGrowth Strategy, which makes normative assumptions about the form that development should take and this is pertinent to the indicative location and outcomes of residential intensification. In terms of the provision of open space within RINs, less normative theory has been considered. In the USA, much has been made of the poor condition of the public realm. A fundamental consideration of urban evaluation should be to determine both the quality and quantity of public space in the city. Public spaces of all types are generally valuable, but this condition is often not qualified beyond quantitative measures. It is important that public spaces are well defined, and that Smart Growth research takes account of this.

TCC therefore may find resolution in developing a wider set of criteria to its open spaces to determine the adequate provision within RINs. Design controls can also contribute to the open space values of an area of intensive development, and they are based on a normative theory about what form development should take. The Ministry for the Environment (2002) has created a five-step guide to provide a clear process for helping to create liveable urban environments, being environments that is a good place to live, work and play. It is a place that meets the needs and expectations of people who live there, in line with the approach taken by SmartGrowth Bay of Plenty. It is supposed that the Councils can help to create these environments by developing well-planned

and coordinated strategies to achieve the things the community wants (Ministry for the Environment, 2002). Among other techniques, the guide suggests consulting with the community to develop a list of qualities for identifying what people do and don't value in their environment. The guide does not provide any useful examples of implementing the 'Live, Work and Play' concept in areas of intensive residential development.

TCC may need to look beyond its quantitative approach to providing open space, particularly since the goals of Smart Growth require more dynamic methodologies than those which are currently in place. It is also fundamentally important that the urban form is understood in terms of change over time (Talen, 2003). Non-statutory implementation mechanisms such as neighbourhood plans also provide flexibility.

3.4 Conclusion

Smart Growth is a term that was developed in the USA during the 1990s as a result of the recognition of the need to implement sustainable development. Smart Growth provides an opportunity to facilitate development that is perceived to be more environmentally, economically and socially responsible than historical consumptive forms of growth. It is a term that is based on normative ideals about appropriate forms of development. The provision of appropriate public space is a fundamental aspect of Smart Growth.

New Zealand is moving towards more sustainable forms of development in its rapidly growing regions such as Auckland and the western Bay of Plenty sub-region through such initiatives as the Auckland Regional Growth Forum and the western Bay of Plenty SmartGrowth Strategy. This is also reflected in the Sustainable Development: Programme of Action. Residential intensification is one aspect of Smart Growth that will be implemented by TCC in the future, and its success is reliant to some extent on design controls for residential developments. The design controls have much to offer in the provision of open spaces within areas of intensive development. TCC's dilemma in terms of

meeting its levels of service requirements in areas where residential intensification is implemented may hold resolution in the application of more qualitative measurement of the urban space, or at least a combination of qualitative and quantitative methods. Smart Growth is grounded in normative theory, which is inherently subjective. The following chapter provides a review of the history of reserve provision in New Zealand, and also some of the features of modern leisure and recreation with reference to the implications of this on the nature of our open spaces, both existing and future.

4.0 A Review of the History of Reserve Provision in New Zealand

There is a historical basis for the methods that local authorities use to provide reserves in New Zealand. The methodology is largely based on historical assumptions about an 'accepted' or appropriate level of active and passive reserve space. This chapter will provide a description of the factors that have shaped territorial authorities' current approaches to reserve provision in New Zealand, and a description of the current trends in recreation and reserve use based on demographic and statistical considerations.

A discussion of the history of town planning in New Zealand provides a basis from which to understand New Zealand's approach to planning for the public realm.

4.1 The City Beautiful Movement

Miller agrees with Cherry and Sutcliffe's concepts of the origins of British town planning, that town planning in New Zealand was derived from the need to regulate the environmental and social effects of economic development within an urban environment (Miller, 2002). After colonisation, New Zealand was reluctant to break its close connection with Britain, which is reflected in New Zealand's reliance on British primary production export markets up to the 1960s. Culturally New Zealand also looked to British and imperial models of appropriate practice. In contrast to Australia, New Zealand abandoned its attempt at federal governance model with the abolition of the provinces in 1876 and New Zealand's local governance structure was a comfortable copy of British models with counties and boroughs, though in the New Zealand system local independence was much more marked.

The combination of factors that produced town planning in any specific country were unique to that country, though it has been mentioned that New Zealand was influenced to a large extent by the issues facing the colonial homeland.

For later developed colonies such as New Zealand, these issues were less likely to be present or prominent and thus the issue of the diffusion of town planning ideas becomes important (Miller, 2002). Many of the standards applied in town planning were taken from American and British models, some without great success.[12] The establishment of beautifying societies from the late 1890s onwards go some way towards providing an explanation for the current approach to public amenity planning in New Zealand.

Beautifying societies were established in Dunedin in 1887 and the most successful was founded in Christchurch in 1897. The Christchurch Beautifying Society still exists in a similar capacity today. The time of these groups was taken up with tree planting, reserve establishment and enhancement of existing open space, such as the Dunedin Town Belt (Lochhead, 1973). The interest in civic improvement of the societies gradually came to include an acknowledged interest in town planning. Outside of New Zealand, this was powered by a need to address the improvement of the urban environment, particularly living environments, by everything from Garden Cities and suburbs; to city beautifying and civic improvement projects; to zoning and statutory planning (Miller, 2002). There were three attempts at implementing the garden suburb concept in New Zealand. These failed in practice, primarily because there were no examples available for prospective buyers to view (Miller, 2004). The pattern of settlement and development in New Zealand meant that planners and surveyors were not provided with the opportunity to build new towns from scratch. A consequence of this is that planners needed to look at incorporating some of the concepts such as public and private open space in day-to-day subdivision design. Surveyors did take note of these developments and some developers came to realise that this might make the subdivisions more saleable. However because New Zealand was using overseas models to guide the nature of their designs they often began incorporating approaches that were based on problems that were not an issue in New Zealand.

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[12] Miller (2002) cites Wakefield's attempt at organised settlements through the New Zealand Company as ill executed, primarily due to poor business dealings.

The New Zealand situation was quite different to the British and American ones; the country was relatively recently settled and was not touched by the excesses of the unplanned and often chaotic growth of the Victorian City. It is clear that the early history of the town planning movement is always reflective of the social and political concerns of the time, and New Zealand was receptive to the ideas that flowed from Britain and elsewhere because they were culturally prepared for these to be correct and appropriate models. Miller (2002) contends that New Zealand did develop models that suited the national conditions, the origins of which were to control the growth of urban areas to provide an efficient well-functioning urban fabric, albeit slowly. The Town-planning Act 1926 and all subsequent legislation would concentrate on land use planning and resource allocation, creating a unique planning system, which recognised and valued recreational land and open space.

Figure 12: History of New Zealand Planning System

1840	Treaty of Waitangi –organised settlement commences.
1854	Public Reserves Act passed
1867	Municipal Corporations Act –new towns.
1887	Dunedin Amenities Society founded.
1897	Christchurch Beautifying Society founded.
1900	New Zealand's population 816,000.
1903	Scenery Preservation Act passed – land of scenic or historical interest declared a reserve.
1914	New Zealand leg of Australasian Town Planning Tour
1915	Reserves and Other Lands Disposal and Public Bodies Empowering Act 1915.
1917	Russell's Town-planning Bill
1919	Town Planning Conference and Exhibition. Russell's bill abandoned
1924	Combined Central Committee formed to lobby for town planning legislation
1926	New Zealand's population reaches 1.4 million. Town-planning Act developed and passed

Miller, 2002

Public space planning now in New Zealand is undertaken by way of reserves contributions and rates, increasing appreciation of the need to develop people-friendly public spaces. Early evidence of this is found in the Reserves and Other Lands Disposal & Public Bodies Empowering Act 1915. This act provided for the exchange, sale, reservation and other deposition of certain lands. It also conferred powers on certain public bodies for the vesting of land in the public interest. The Act also required "the earmarking of the required recreation reserve (of 5 per cent) on Estates proposed to be subdivided" (p11). Through various Lands And Municipal Corporations Acts, local authorities became empowered not only to acquire reserves through the subdivision process but to become actively involved in their development. This legislation shows that the concept of reserves contributions through subdivision has been in existence in one form or another since the beginning of the twentieth century. This in turn helps to explain the generally high level of reserve provision in most New Zealand towns and cities.

4.2 Recreation Planning: Historical Overview

In New Zealand, early town layout plans and zoning techniques, usually instituted by a surveyor at the local level made provision for large reserve blocks, town squares and botanic gardens. When town sites were laid out, large reserve blocks, town belts and future pleasuring grounds were set aside under the instruction of early colonial governors such as Hobson or the chief surveyors of the settlements (Tritenbach, 1987). The concept of the government of New Zealand granting land in trust to public or corporate bodies first appeared in the New Zealand Act 1840 (Local Government New Zealand, 1999). The term "reserve" was used in royal instructions of 1840 to Governor Hobson; there then followed a chain of legislation enabling creation of reserves by the Crown, or local government, or as a result of subdivision.

Prior to 1906 suggestions for reserves came from a variety of sources, including from members of parliament wanting to promote the scenic attractions of their

local electorates (Ministry of Culture and Heritage, 2004). There was a preference to create reserves along large navigable rivers such as the Whanganui River, which were considered to be of interest to tourists and travellers. Road and rail routes were also the focus of attention. The first meeting of the Scenery Preservation Commission (1906-07) decided that hundreds of roadside beauty spots would be reserved and that each reserve would have an open area cleared for bush and picnics. Figure 13 on the page 50 provides an example of Scenic Corridor Reserves after 1908. A number of these reserves were lost due to mismanagement and subsequently destroyed in bush clearing.

Figure 13: Scenic Corridor Reserves Post 1908
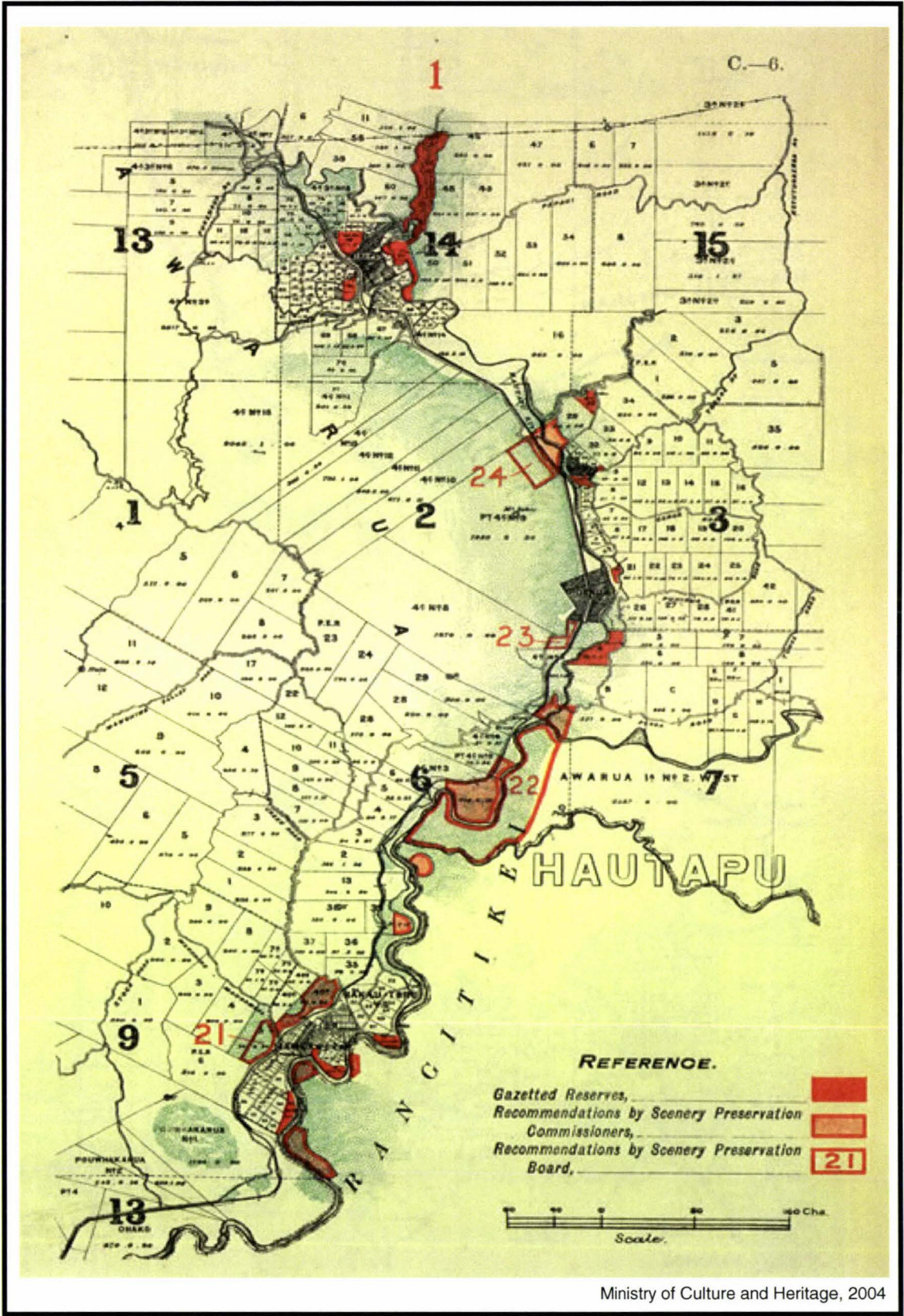
Ministry of Culture and Heritage, 2004

In the towns and cities, areas of bush within the reserves and town belts were cleared for sports fields, such as cricket (Tritenbach, 1987). Colonial governors and acclimatisation societies instigated the development of farm plots in the same areas. Cleared areas of bush within the reserves and town belts were then leased out for grazing on the condition that the lessee further clear the bush and establish grass. As a result, many of the reserves, town belts and botanic gardens as we see them today were originally completely cleared of native bush. The first generic legislation providing for the establishment and administration of public reserves was the Public Reserves Act 1854. The Public Reserves Act introduced the concept of vesting of control of land rather than vesting land itself. When the provincial era ended in 1876, some reserves passed over to the municipalities (Local Government New Zealand, 1999).

The Municipal Corporations Act had been passed in 1867 providing for new towns to gain municipal incorporation status on petition. Most of today's local authorities are descendents of the municipalities created under the 1867 Act.

The Scenery Preservation Act 1903 allowed the Crown to acquire lands of scenic or historical interest, or on which there were thermal springs and declare them reserves (Ministry of Culture and Heritage, 2004). The government stressed the importance of providing absolute long-term security for scenery preservation through central government control. The Act also allowed for devolvement of control to local authorities and special boards, though some politicians met this with resistance. One option was to establish special groups such as amenity societies to administer and inspect the reserves. From 1915 there were honorary inspectors of scenic reserves, especially in areas where settlement was sparse. Thus at an early stage there was an emphasis on creating both local and natural reserves.

In the twentieth century, the New Zealand town planning system had evolved in to a more formally recognised government legislature (see Figure 12 page 47). Cities and towns became more urbanised and there was a recognition that the labour force was evolving in to what was described as 'this age of machinery and invention', thus depriving the community of the opportunity to maintain the

standard of physical fitness possible to those who lived and worked in rural areas (Director of Town Planning, 1930). A result of this was to provide both active and passive recreation spaces in urban areas of New Zealand. The so-called industrial city's evils identified in Britain and America influenced the need for local reserve space as a perceived antidote to anti-social or morally degrading behaviour. The following quote from the New York Regional Survey (in Mawson, 1930) identifies the benefits of recreation provided in the public realm:

"THE CASE FOR RECREATION

(By Shelby Harrison in a Foreword to Volume 5 of The New York Regional Survey.)

Opportunity for recreation has come to be regarded as one of the necessities of life. Play, especially in the open air, and other recreative activities are potent influences having both negative and positive aspects. We know that wholesome play acts as a preventative of delinquency and of other misuses of time and energy; and we know also that it is a great educator physically, mentally and morally. It promotes health and, along with other leisure-time activities, aids towards a fuller development of well-rounded personality. These are conclusions regarding which there is at present little if any disagreement; they have come to be accepted as practically axiomatic –certainly with reference to children and young people living in cities – and as a result, facilities for recreation, like school buildings and grounds, are being recognised more and more as essential parts of the public machinery of a well-equipped modern community."

In New Zealand, the Director of Town Planning (1930) quotes Weir: "The modern town-planning movement, with its provision for parks and recreation, can accomplish much…. for its activities are making communities better places in which to live, and so restoring environmental conditions that fundamental impulses of children and adults can find wholesome normal expression". Forbes (1987) cites the assumption that in providing a system of recreational facilities, there is some attempt to maximise the welfare of the community, and

that town planning is one way in which the state can intervene in the market to achieve this objective. Therefore the aim must be to specify precisely the objectives that the planning authority is attempting to fulfil in designating land for recreational use. These concepts developed in New Zealand along with local variations to produce what we see today as the generally unchallenged process for providing public reserve and recreation facilities.

Local government in New Zealand has played a strong traditional role in the development of active leisure (Hillary Commission, 2000). Based on practices and priorities imported from Britain, local councils have historically invested in parks, gardens and playing fields. All territorial authorities now provide a wide range of leisure facilities, and total investment by local government exceeds $340 million in addition to billions of dollars of community leisure assets. Territorial authorities are by far the largest institutional investors in active leisure, despite early resistance to this role.

An article by Mawson, the Director of Town Planning (1931) introduced the concept of a "Radius of Efficiency" and "Minimum Standards". These are consistent with the methodologies currently used by Tauranga City Council. They are the travel-cost method for neighbourhood reserves and the Levels of Service requirements, respectively.

4.2.1 Radius of Efficiency

The radius of efficiency was defined as "a reasonable walking distance according to the age-group that any particular ground is designed to serve". Mawson suggests that the radius of efficiency is governed to some degree by topography and transportation facilities. It was advised that provision for recreational facilities should be made in accordance with the needs of the following age groups:

1. Under 5 years of age;
2. 5 to 14 years of age;
3. 14 to 25 years of age; and

4. Over 25 years of age.

The radius of efficiency of a playground designed to serve the age group 5 to 14, is one quarter of a mile (Mawson, 1930). The rationale for this distance was based on the reasonable distance that a child might walk to a playground, particularly if it is necessary for them to cross one or more roads. The radius of efficiency is based on the assumption that walking is the only means of transport for a child to a playground. TCC's travel-cost method for neighbourhood reserves is also based on serving the needs of a catchment located within walking distance to a playground (400 metres). For the age group 14 to 25, the radius of efficiency can be taken as half a mile except on occasions where the grounds are used for "senior league matches or athletic meetings". This implies that what is now commonly known as active reserve suitably met the needs of the 14-25 age group during the period in question. In 1930 the Director of Town Planning advocated the value of organised and informal sport games as a means to build up the character and health of the young manhood and womanhood of New Zealand (Director of Town Planning, 1930). It may be reasonable to assume that this notion is still relevant today, particularly in light of the fact that planning is still a mechanism by which market intervention is used to benefit the greater public good. The positioning of today's reserves and playgrounds is based on assumptions, for example that children walk to playgrounds.

Mawson noted that a starting point for any community in taking stock of its recreational facilities in relation to present needs is to prepare an efficiency map by classifying its various playgrounds according to their functions, and drawing a circle with a radius of one quarter mile (approximately 400 metres) or half a mile (approximately 800 metres) around these grounds. Any areas outside these circles, regardless of acreage of playgrounds available can be regarded as deficient in recreational facilities. This approach places importance on the community's proximity to reserves without considering the adequacy of the facilities available within the catchment served. According to Mawson, in considering the question of playground efficiency or deficiency, it is necessary to establish minimum standards of area requirements for the different age

groups in relation to the actual or potential population contained within the radii of efficiency of the available or proposed grounds.

4.2.2 Minimum Standards

During the early twentieth century the calculation used to determine what is referred to by TCC as 'Levels of Service' was then based on standards generally agreed upon by British and American authorities. The minimum standards are defined according to age groups as follows:

1. 5 to 14: Half an acre (0.2 hectares) per thousand of population
2. 14 to 25: 2½ acres (1.1 hectares) per thousand of population.

This approach does not take in to account the demographic characteristics of a community and is largely reliant upon an adequate supply of land. It also assumes that land is taken at the time of development and that it is developed to be used for sports or as playgrounds. This may have been easier to achieve where new towns were developed or were expanding in the period in New Zealand such as Hamilton and Palmerston North. However Mawson states that local variations should be taken in to consideration when applying the radius of efficiency and minimum standards. Geographical location, climate, topography, functions, area and population are matters to be considered in the provision of recreation grounds. He refers to unspecified English and American authorities again by stating that the absolute minimum acreage for the 14-25 age group should be 1¾ acre (0.71 hectares).

It is noted in Mawson's work that American and British standards should be applied with caution; these standards are based on certain assumptions as to the percentage of the population who indulge in active recreation, and the proportion of such percentage in the various age groups actually utilising the grounds at any one time. Forbes, (1987) criticises the standards developed by the British National Playing Fields Association by saying that the minimum standards are largely a result of 'unsubstantiated armchair theorising'. Forbes adds that recent empirical studies have shown that a figure of 2 ½ to 3 acres

per thousand population (regardless of age) is a more realistic assessment of demand.[13] This shows that New Zealand was considered to have a different characteristic of population and that the country was moving to develop its own standards that were broadly based on overseas ones while adding and modifying them. It also highlights the fact that any standards must be constantly revised and updated to reflect the socio-economic characteristics of the time and the nature of the population.

Provision of recreation space for adults is addressed in Mawson's article. The question of the radius of efficiency does not apply in the same degree to adult as to juvenile recreation facilities. A local authority has responsibility to provide ample recreation space for the social and economic wellbeing of the community, though it is noted that in 'the average town' a substantial percentage of adults can afford and may prefer to provide their own facilities on private lands. To this end, the open space requirements of the 25 and over age group would be considered in relation to the population of a town as a single unit. This early approach assumes that youth are the primary benefactors of public recreation space, and adults (25 years of age and over) can obtain much of their open space benefits from private lands. This is asserted by the Director of Town Planning's (1930) address; beyond the age of 25 recreation should be the means by which fitness is retained, a means of "holding the ground won". This may mean that the recreation facilities provided today are meeting the needs of youth only, based on historical assumptions that adults are able to satisfy their recreation needs on private lands. The articles mentioned above do not discuss the provision of recreation space as a contribution towards urban amenity and offsetting the built form, probably because at the time there was a stricter division between active and passive recreation and much of the contribution to urban amenity was expected to come from people's private gardens (garden competitions were popular) and things like features such as street tree planting.

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[13] The metric measure of 2.5 and 3 acres is between 1.1 and 1.2 hectares.

The theory behind the quantitative (hectares times population) approach to reserve provision has largely been lost. Enquiries with Tauranga City Council conducted as part of this research revealed that no one was sure where the approach had come from or the theoretical basis behind it. It was largely a case of continuing with what has always been done. An approach that is likely to become inappropriate over time.

4.2.3 Strategic Recreation Planning

The more strategic approach to recreation planning as we know it today began in the 1960s and 1970s when some urban local authorities prepared plans for their urban and peri-urban outdoor areas, including parks, playgrounds, sports fields, beaches, waterways scenic areas and picnic areas (Perkins & Booth, 2000). This planning was extended in 1977 with the passing of the Reserves Act and the Town and Country Planning Act 1977 (which replaced a more directive Town and Country Planning Act 1953). Both statutes focused on land use planning, but acknowledged other elements of recreation planning by encouraging the development of recreational opportunities. Local authorities obtained land for recreation at the time of subdivision via the reserve contribution provisions of the Local Government Act 1974. It was then zoned for recreation under the Town and Country Planning Act and the Reserves Act subsequently set out how reserves were developed and managed. This legislation further enforced the long-standing role of local government in the provision of land and facilities for recreation. With regard to the provision of reserves within areas undergoing residential intensification, local authorities are similarly concerned with urban and community recreation planning. While open space planning can be more concerned with offsetting the built form and mitigating the adverse effects of the physical environment, recreation spaces can have the same benefit often indirectly, though their use is more commonly associated with active recreation. This was certainly the case as evidenced by the review of early twentieth century New Zealand literature on the subject. Essentially, open spaces and recreation planning can be two sides of the same

coin. This may be an important consideration in formulating policy for reserves within areas undergoing residential intensification such as Tauranga.

Chapter One identified the issue faced by TCC in providing reserves where residential intensification is implemented. TCC's methodology for calculating reserve provision is based on the historical techniques described in this chapter. The minimum standard and radius of efficiency approaches are difficult to achieve where the land and financial resources are not available to meet the demand based on population. This issue provides an opportunity to review the long-established approach and determine whether the level of service methodology is relevant to the recreational needs of the community. New Zealand's Sport and Recreation Commission (SPARC) is a valuable source of information on the recreational needs and habits of New Zealanders in the 21st century.[14]

4.3 What is Required in the Future?

In New Zealand cities subject to strong urban growth pressure and associated residential intensification such as Auckland and Tauranga, the possibility of alternative methods of measuring urban open space may need to be considered. This is not only as a means of providing public open space where levels of service requirements cannot be met, but also as a means of contributing to amenity values in locations within these cities that are beginning to have a reduced level of private open space. A shift in thinking beyond the traditional quantitative approach to levels of service has emerged in response to the difficulties associated with meeting the prescribed reserve land requirements within established residential areas. The historical theory on which today's levels of service requirements are based may no longer be relevant to the community's needs, or the goals of Smart Growth. The remainder of this chapter will identify some of the reasons which future levels of service may need focus on a wider range of criteria, particularly the demographic characteristics of target communities.

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[14] SPARC was formerly known as the Hillary Commission.

4.3.1 Reserves & Recreation in the 21st Century

It is possible that open spaces in New Zealand are provided based on outdated assumptions about the demographic configuration of urban areas. For example, Keeble (1976) contends:

"The National Playing Fields Association estimated in 1927 that in every 1,000 persons there were 500 between the ages of 10 and 40 years, of whom (20 percent of the total population) would need provision for games and playing, and that this ought to be provided at the rate of 6 acres per 1,000 population. It was suggested that an additional 1 acre per 1,000 was needed for other kinds of open space."

Mawson refers to the application of British standards in New Zealand during the early to mid 20th century. The application of these standards as referred to by Keeble particularly relate to new towns. The levels of service for active recreation provision are also based on the assumption that a high proportion of the population is aged between 10 and 40. Chapter One of this research revealed that the proportion of Tauranga's population in the future will not resemble a similar demographic. There is little evidence at the local authority level that there has been any reassessment of methods of determining appropriate levels of service in terms of recreational land provision. As observed earlier currently there is no understanding of what criteria or assessments the current levels are based on.

During the 1990s New Zealand society went through quite major social and economic changes (Hillary Commission, 2000). The pace of life increased, along with increased urbanisation, free market policies and South-North drift created lifestyle and economic issues in the cities and rural areas. New Zealand's age profile grew older, and this is particularly relevant in Tauranga. The traditional and heartland views of New Zealand came under stress. A 'typical' Kiwi's lifestyle throughout most of the twentieth century was naturally active. But the increase in so-called labour saving devices, the rise of the vehicular society and the advent of sedentary distractions such as the café

culture and the internet, along with the hastening pace of life and the loss of the weekend as a 'work free zone', have impacted massively on what was once a normal lifestyle. New Zealand can learn much from the United States, which in many ways is modern New Zealand's lifestyle trendsetter. Urban North Americans have for years been living the lifestyles that an increasing number of New Zealanders are just beginning to adopt. In essence, it is a low activity rich diet lifestyle. Physical activity has been squeezed out of people's lives as sedentary pursuits grow in appeal. As at 2000, 68% of New Zealanders were active, while the equivalent measure in the USA is 15%.[15] It is the responsibility of the New Zealand Sport and Recreation Commission (SPARC –previously known as the Hillary Commission) to promote physical activity, including outdoor pursuits in order to ensure that New Zealand's active society statistic does not reflect the USA's in the future.

It may be assumed that changes in society would affect the nature of public facilities provided by local authorities, though it is possible that the provision of reserve facilities has not kept pace with the marked changes in New Zealand society since the 1990s. This is evident by the historical basis on which territorial authorities such as TCC provide reserves across the city. The future provision of reserve and recreation facilities may need to be consistent with SPARC's goals, one of which is to "increase participation in sport, fitness and leisure" (Hillary Commission, 2000). In its Sport and Physical Activity Survey, SPARC provides a possible physical activity profile in 2021 based on physical activity trends and demographic change:

- Continued active group of middle aged to 'younger' older people (the 45s to 64s in 2001)
- Higher proportion of adults sedentary
- Higher proportions of inactive adults by ethnicity due to changing population structure (Maori, Pacific, other ethnic groups) –'inactive' is defined by SPARC as less than 2.5 hours of physical activity per week (McLean, 2003)

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[15] "Active" is defined in the publication as partaking in 2.5 hours or more of physical activity of some form each week.

- Higher prevalence of obesity, Type 2 diabetes and cardiovascular disease particularly among inactive groups.

There is potential for higher prevalence of inactivity in Auckland given the demographic characteristics of the Auckland population combined with the stresses of community and increased hours of work, which leaves little time for recreation. The latter is an issue for the total New Zealand population. This may require local authorities to collaborate with these key central government agencies such as SPARC where appropriate to ensure consistency. The Hillary Commission's (2000) document makes assumptions about the active nature of New Zealand communities and makes recommendations in terms of the input that local authorities can make in order to ensure communities are increasingly active by 2010. The recommended inputs considered relevant to this research topic are outlined below:

- Increase investment in active leisure facilities and programmes –the Hillary Commission suggests a figure of $150 per person per annum (minimum)
- Promote outdoors in their area. Access to coastline, lakes, rivers is improved and secure car parking facilities developed
- These actions can be complimented by direct investment in active leisure with an effort to improve the 'wider active environment'. Suggestions for direct investment include improved street lighting for foot and cycle paths, an increase in the number of walkways and cycle paths in towns and cities. Footpaths are widened to allow maximum safety, ramps built wherever necessary to ensure easy access for wheelchairs and pushchairs, pedestrian crossings increased and lower speed restrictions enforced in areas of higher pedestrian usage.

Some observations from these points are that recreation space is broadly defined to include streets, and a presumption is that people will travel to their chosen recreation form such as swimming pools or gyms. This undermines the

idea that every city requires a particular area of reserve land, and emphasises the dynamic and changing nature of recreation in the twenty-first century.

In its document the Hillary Commission (2000) cites Christchurch City Council, Manukau City Council and Tauranga District Council among New Zealand's leading examples of promoting the importance of quality of life in their areas. Putting civic energy into good facilities and programmes made available at low or no cost is identified as a way of achieving this. Many of the Hillary Commission's recommendations must be considered in conjunction with other issues, including traffic management and ecological protection. In Tauranga it is particularly important under the District Plan to protect the ecological integrity of the coastline and minimise the risks of coastal erosion.[16]

Assuming that a higher proportion of the population will be retired, there is a need to determine what the community requires in terms of recreation and match that to what local authorities will need to provide in order to meet community needs in the future.

4.3.2 Demographics and Recreation

SPARC research indicates that one of the most significant issues for New Zealand from a health perspective is ensuring adequate physical activity (McLean, 2003). This has been reflected in concerns over New Zealand's obesity 'epidemic' mentioned earlier. SPARC's New Zealand Sport and Physical activity survey began in 1997. Three surveys were conducted, in 1997/98, 1998/99 and 2000/01, from a national, household and random sample. In total 16,500 people were interviewed (12,500 adults and 4,000 young people). Some of the general facts about the physical recreation habits of those surveyed:

- 32% of adults and young people are inactive
- Activity levels among adults have increased from 67% in 1997 to 70% in 2001

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[16] Section 6 of the Tauranga District Plan.

- There are indications that activity levels among young people (5-17 years) may have declined from in 1997 to 66% in 2001. More young people are sedentary; up from 8% in 1997 to 13% in 2001 (adults 9%)
- Boys are more active than girls. Men and women are similarly active.

The physical activity of older adults is given particular attention here, since in the future there will be a high proportion of older adults living in Tauranga. The physical activities of older adults are going to be an important consideration if TCC takes in to account the demographic characteristics of its target communities in providing open space in the future. It is also important to note that the likely demographic (as anticipated by SmartGrowth) to make up RINs could be dominated by older adults. The information has been taken from a summary of SPARC's New Zealand Sport and Physical activity survey for 3,835 older adults aged 55 years or over from across New Zealand. Interviews took place every month during each year that the survey was carried out to track how active people are from season to season. Almost all older adults enjoy some form of sport or active leisure. The following graphs show the activity levels of older adults versus all New Zealand adults. It shows that 71% of adults aged over 55 years or over are active. This is higher than the figure for all adults (persons aged 18 years or over) of 68%.

Figure 14: Activity Levels of Adults

McLean, 2003
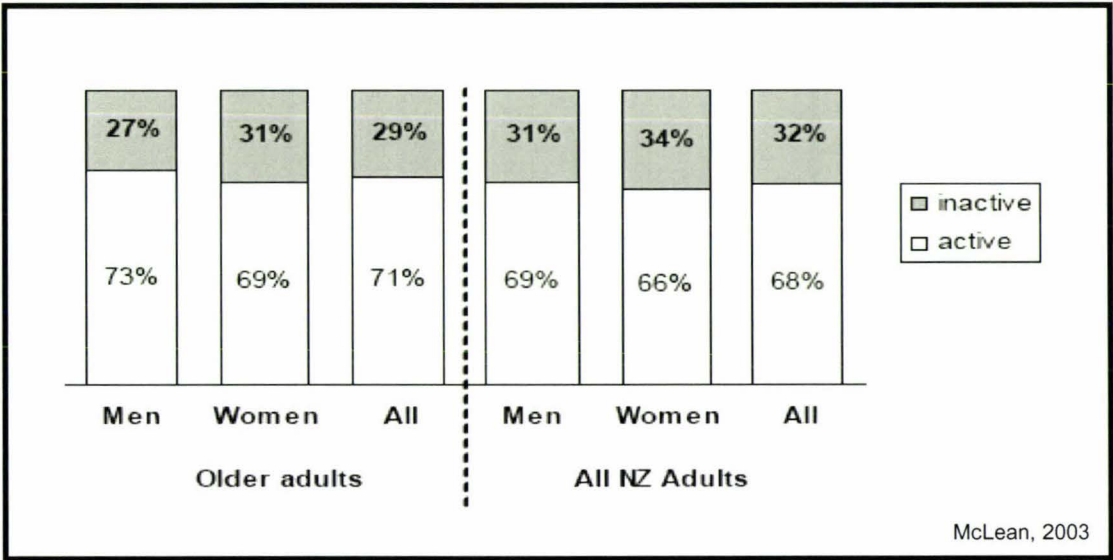
Older adults also spend more time being active than adults generally –over an hour more time per week on average (10.5 hours per week compared with 9.3 hours naturally). This may be due to the fact that a higher proportion of older adults are retired and can devote a greater proportion of their time to physical activity than adults overall.

Older adults take part in 3.2 different sports and activities over a year, compared with 5.0 for all adults, although men take part in more activities than women (3.4 men and 3.0 women). The number of sports and activities that older adults participate in decreases as they age, from an average of 3.5 for 55-64 year olds to 2.6 for those aged 75 years and over. In contrast to the national trend of activity levels increasing with available household income, older adults with an available household income of $36,001-$60,000 are most likely to be active, although the proportions that are active are similar for all income groups above $18,000 (ranging from 73% to 75%); those on incomes less than $18,000 are least likely to be active, which accords with the national case. The proportions of those on incomes between $18,001 and $60,000 that are active are higher than the national averages for these income groups, particularly the proportions that are highly active. Participation in sport and active leisure activities is spread across a large number of activities. The top sports and activities for older adults are shown in the table below. Golf and bowls are the most popular sports for both men and women. Golf is also the number one sport for the 55-64 year old age group (19%) and 65-74 year olds (15%), but for those 75 years or over outdoor and indoor bowls are the most popular (12% and 10% respectively). Walking and gardening are the most common way that men and women use their active leisure time.

Figure 15: Top Sports and Active Leisure Activities for Older Adults

SPORTS						ACTIVE LEISURE ACTIVITIES					
Men	Older adults	NZ	Women	Older adults	NZ	Men	Older adults	NZ	Women	Older adults	NZ
Golf	21%	28%	Golf	9%	10%	Gardening	73%	52%	Gardening	78%	67%
Outdoor bowls	12%	5%	Indoor bowls	8%	4%	Walking	68%	61%	Walking	78%	81%
Indoor bowls	8%	4%	Outdoor bowls	6%	3%	Fishing	25%	36%	Home exercise	24%	35%
Yachting/sailing	5%	7%	Tennis	4%	10%	Home exercise	21%	27%	Swimming	19%	38%
Tennis	4%	14%	Yachting/sailing	2%	4%	Swimming	19%	34%	Fishing	7%	14%

Note: The figures are for participation in the last 12 months and show the percentage of people taking part in each sport and activity.

McLean, 2003

These statistics assert the importance of streetscape and urban design guidelines as a way of improving and ensuring the 'walkability' of areas with a higher residential density in the future. While much of the popular sports opportunities such as golf and bowls may not be required within every RIN, the level of participation in walking would indicate a need to ensure this type of activity is attractive to the older adults in the community. The information taken from the survey of older adults provides a snapshot of some of the matters that should be considered in providing open spaces within areas that residential intensification is implicated. This information does not preclude the need to assess the physical activity characteristics of other demographic groups within the community.

The issues faced by SPARC in the future in terms of maintaining and improving the physical activities of New Zealand's communities will require extensive support by local authorities. TCC may need to consider ways in which physical activity can be maximised and promoted in areas where residential intensification is implemented. This may mean balancing promotion of the 'café culture' against promotion of less sedentary forms of leisure. Strategies for addressing this will be discussed in more detail in following chapters.

There is evidence to suggest that areas of higher density may require an alternative approach to the provision of open space. In its Parks 2020 Vision document, Portland's Parks and Recreation Department (2002) identifies that

the growth in the Portland region over the next 20 years will result in urban redevelopment and increased densities. More people will seek to use park system resources as open spaces decrease. Portland's solution to this is to maintain the current quantitative ratio of parkland to population of 8.1 hectares per thousand. Based on population projections this would require an increase of 756 hectares to meet a population of 597,050. However the emphasis is placed on improving the quality of green spaces provided and the linkages between them, with one of the goals being "to create an interconnected regional and local system of parks to make Portland 'the walking city of the west'". Another goal is to "develop parks and recreation facilities and programs [sic] that promote 'community in the city'", which would involve building public plazas and 'green connections' in the regional and town centres and along the main streets. This will be the case in New Zealand, where an increased reliance on public open space means that councils will have to go further than to simply determine the attributes of a quality open space, as existing reserve and recreation facilities will become pressured by crowding. This could escalate user conflicts and degrade resource quality.

The Auckland Regional Council (2003) has developed a draft open space strategy, which aims to provide open space at a regional level in anticipation of the growth issues facing the region over the next 50 years. The Draft Regional Open Space Strategy (ROSS) identifies a range of contributions to open space, which don't inevitably fit in to the traditional 'park' concept. The 'other' forms of open space considered can include the following:

- Green spaces: including recreation spaces, amenity, biodiversity and cultural heritage
- Open areas: traditionally a reprieve from the built form
- Recreation areas: including buildings and structures specifically provided for recreation purposes, such as aquatic centres and gyms
- Blue spaces: waterways, beaches and harbours (where relevant)
- Grey spaces: transport corridors, civic squares and streetscapes (Auckland Regional Council, 2003).

The ROSS is evidence of a shift towards considering a range of user experiences and contributions to open space, while formally increasing public awareness of recreation opportunities beyond the traditional park concept. This may help to spread the use of open spaces to 'other' less traditionally utilised public facilities. However strategies such as the ROSS are still in their early stages and are broad policy approaches that don't deal with the quantitative aspects that this research is concerned with.

4.4 Conclusion

The required thinking with respect to open space provision may be characterised by a shift away from considering specifically formal open space provision in the form of active, passive and neighbourhood reserves. The future inability of TCC to meet its levels of service requirements based on quantity and travel distance has raised the issue of whether the historical basis for providing reserves at the local level is still appropriate to the needs of communities in the twenty-first century. It has been identified that the current approach may be to some extent outdated, and the theory behind approaches such as Keeble (1976) were more appropriate where new towns were developed in the early twentieth century, using models adapted from Britain and the USA.

Is it possible to define a 'quality' open space using criteria, which is more relevant to the needs of the population particular areas? It is clear that long-established standards used by Councils today for providing open space is aimed at a different demographic from the target communities of the future. This is evidenced by New Zealand's ageing population and it is even more relevant in the western Bay of Plenty sub region –35% of the population will be aged over 85 by 2051. SPARC has identified that 'older' adults participate regularly in physical activity of some kind, though older adults in New Zealand are less likely than adults overall to be involved in a wide range of recreational and sporting activities. TCC will need to consider these statistics when implementing open space policy within RINs under SmartGrowth. Particularly

important is ensuring that open space policies are consistent with SPARC documents such as Active Communities 2010, which identifies sedentary activities such as the café culture as a contribution towards inactivity and obesity related illnesses.

The USA literature notes that as cultural patterns of space usage are better understood, park design may be jolted out of its mass-production approach (Cooper Marcus & Francis, 1998). A single, centralised park may be irrelevant to a community that depends on active street life to sustain its social networks (Laurie 1975, in Cooper Marcus & Francis, 1998). Parks should be viewed as part of the same continuum as plazas, markets, promenades, and other types of public space (Cooper Marcus & Francis, 1998). Even in 1987, Forbes recognised there was a trend in land use planning away from the imposition of rigid standards and towards a more flexible approach. The following chapter briefly describes the legislative mechanisms in place that help to determine open space provision in New Zealand.

5.0 The Legislative Framework

Three major pieces of legislation facilitate local open space provision in New Zealand. The Resource Management Act 1991 (RMA), Local Government Act 2002 (LGA) and the Reserves Act 1977 (RA) set out the core regulatory functions of local authorities and generally impact on all aspects of open space land management -from financial planning and funding of assets and services, to governing land use and planning matters (Local Government New Zealand, 1999).

5.1 Legislation

5.1.1 Resource Management Act 1991

The role of local authorities under the RMA is to promote the sustainable management of natural and physical resources. The purpose of the RMA and sustainable management is outlined under Part II (section 5) of the RMA. The RMA affects the way people can behave, and controls the effects they (and their property) can have on the environment (Local Government New Zealand, 1999).

The RMA may affect reserves and reserve provision in three ways:

1. Preventing adverse effects of activities under section 5, including ensuring that any activities undertaken on a reserve do not have an adverse effect on the environment.
2. The RMA may also directly result in the creation of reserves if that is required as a condition of subdivision consent. An example is the creation of an esplanade strip as part of the subdivision of land.
3. The provision of service via policies on sustainable management/sustainable development. The creation and management of reserves may be one way for a territorial authority to ensure

community outcomes for reserve planning and associated services are met.

Section 76 of the RMA states that, when making a rule in a district plan, the territorial authority shall consider the actual and potential effects on the environment of activities (Ministry for the Environment, 1994). This is the fundamental basis for which financial contributions, usually as a condition of resource consent pursuant to section 108, are received by local authorities under the RMA. Until 2003 councils were required under the Second Schedule of the RMA to specify the circumstances in which financial contributions may be imposed and the formula to calculate them. The plan must specify the general purposes for which the contribution may be used. This can include offsetting the effects of new development on existing and future reserves and recreational facilities. Any nature of changes to a Council's method of calculating or imposing financial contributions must be undertaken through a District Plan Change or variation. This means that the changes have to be formulated, with consultation undertaken, public notification, submissions, cross-submissions and hearings. Decisions have to be formulated and released with the prospect of potential appeals to the Environment Court. This is one of the major disadvantages of the process under the RMA. The Local Government Act 2002 introduced the option for Councils to manage and impose financial contributions for reserves under this Act (sections 197-211). Tauranga City Council now imposes development contributions under the LGA.

5.1.2 Local Government Act 2002

The purpose of the LGA is to provide for democratic and effective local government that recognises the diversity of New Zealand communities (LGA, 2002). The LGA provides the framework and powers for local authorities to decide which activities they undertake and how they will be undertaken, promotes the accountability of local authorities to their communities. It allows local authorities to play a broad role in promoting their social, economic, environmental and cultural wellbeing of their communities, taking a sustainable development approach. This is distinct from the RMA, which takes a

sustainable management or 'effects based' approach. The sustainable development approach of the LGA is a result of the new central government policy approach outlined in Sustainable Development: Programme of Action described in Chapter Three.

Fundamentally, the LGA requires a transparent and accountable process from local authorities in preparing their policies on capital expenditure sourced via financial contributions –this was previously required under the Second Schedule of the RMA. A local authority's capital expenditure on providing reserves and open space is sourced primarily via financial contributions. Historically, contributions for reserve purposes have been in the form of land or cash (Ministry for the Environment, 1994). The contributions were made at the time of land subdivision in accordance with the requirements contained in district and planning documents and the Local Government Act 1974. More recently contributions were made under the RMA.

It is a new approach introduced under the Local Government Act 2002 to provide new options for taking contributions for reserves. A number of territorial authorities including TCC have moved to the LGA system for requiring financial contributions. Under the LGA they are known as development contributions. Sections 197 to 211 of the LGA provide for development contributions. Under section 198, Councils may require a development contribution to be paid when granting a resource consent for a development, a building consent under the Building Act 1991 or an authorisation for a service connection. 'Development' is defined as being any subdivision or other development that generates a demand for services, network infrastructure, or community infrastructure. This definition would certainly involve subdivision or multi-unit development, which would normally be covered in the provisions of the district plan. It could also include any other form of development that gives rise to or generates demand for reserves, network infrastructure or community infrastructure. Council can require a development contribution for developments simply where they have some impact on, or require some extension to Council's infrastructure or community assets.

Section 198(2) requires a development contribution to be provided for in a policy adopted under section 102(4)(d) that is consistent with section 201. The policy is required to be adopted either using the special consultative procedure set out in section 83 of the LGA or as part of a Council's Long Term Council Community Plan (LTCCP) adopted under section 93. A number of councils consider that both the special consultative procedure and the procedure for adopting the LTCCP is not as logistically difficult as attempting to change, or have financial contributions included in their plans. For example, the period for making submissions must be no less than one month and there does not appear to be any right of appeal from the decisions made in accordance with the special consultative procedure under the LGA. This would mean that the ability to challenge policies such as the development contribution policy would be limited to judicial review, which would have to meet the rigours and tests for judicial review, but which is less likely to be pursued because of the costs involved. This would appear more rigorous than the rights of appeal currently afforded submitters under the RMA process. The provisions for taking development contributions under the LTCCP has not been in use long enough to be fully tested in practice. The Reserves Act 1977 (RA) provides the mechanism via which territorial authorities can set aside areas of land for reserves purposes, to classify them and provide further management.

5.1.3 Reserves Act 1977

The Act provides procedures for preparing management plans, revoking reserve status, exchanging reserve land for other land and dealing with applications for easements, leases, licences and concessions. It sets out Council's obligations as an administrating body, and the right of the public to be consulted and to have their comments heard (Wellington City Council, 1998). The RA requires that land be classified in one of seven categories according to the primary values to be protected: nature, scientific, scenic, historic, recreation, government purpose or local purpose (Wellington City Council, 1998). Each category has principles and broad management requirements, which reflect the specific protected values. Most of Council's reserves are held for recreation or scenic purposes.

There were a number of guiding principles that formed the basis of the RA when it was conceived. The number of types of reserve should be reduced to an absolute minimum, each classification of reserve should have its own philosophy, purpose and management principles, management planning should provide for the best use of each reserve, and administering bodies should be enabled to implement the plans once approved (LGNZ, 1999). The RA provides a high degree of certainty regarding protection and appropriate use of open space and provides for a significant community consultation (Wellington City Council, 1998).

The RA provides a high level of statutory protection for open space land, including a recognised protective status, formalising a Council's intentions and facilitates a strong democratic process which provides for community involvement. In addition, the Act contains offences provisions, which allows a Council to engage in enforcement proceedings if necessary. To this end, the Act provides a legal status that runs with the land title giving a high degree of certainty. The legal assurance provided by the RA has disadvantages. It can create additional cost, though this is offset by the cost of the land. If Council shifts its intentions for the land, the RA does not provide flexibility required to allow this. Finally, additional time is required for the management decisions that are made about reserve provision.

5.2 Conclusion

There are three key pieces of legislation that relate the provision of local authority reserves in New Zealand. The RMA provides the basis for which local authorities manage natural and physical resources. Financial contributions can be taken as a condition of consent under the RMA, however the procedures for changing any aspect of the methodology for requiring financial contributions under the RMA can be onerous. The LGA sets out the functions of local authorities and provides an alternative procedure for requiring development contributions as a result of community development, which can include subdivision and any form of development that may give rise to or generates

demand for reserves, network infrastructure or community infrastructure. The development contributions set out under the LTCCP can be amended more easily than financial contributions under the RMA. The LTCCP can set out expenditure for other capital works in urban areas, which may not include gazetted reserve land. The RA provides for territorial authorities to vest land for reserves purposes and also provides procedures for the development of reserve management plans. The following chapter describes some of alternative methods for assessing open space.

6.0 Alternative Methods for Assessing Open Space

6.1 Theoretical Considerations

It has been identified in Chapter Four that a solely quantitative approach to measuring urban space may not be effective in areas where Smart Growth is implemented. TCC is faced with the difficulties of applying a historically based quantitative methodology for providing open spaces in proposed areas of intensive development. Talen (2003) suggests that the normative ideals that underpin Smart Growth calls for a dynamic approach to measuring the urban form. This is certainly reflected in the dynamic and diversifying nature of New Zealand cities in the twenty-first century. SPARC data and demographic characteristics may need to be taken in to account to ensure that the open space needs of the community are met in RINs. Overseas criteria for measuring open spaces have been developed for similar reasons. The criteria of the past have become inappropriate as they are being applied to areas with different demographic and socio-economic characteristics. For example, the Office of the Deputy Prime Minister (2002) in Britain identifies that it is not enough simply to ensure that if an existing open space or sport and recreation facility is lost to some other land use, it is replaced in broadly the same area. In the absence of rigorous local assessment, there can be no guarantee that the replacement land is needed or that its new location will serve the public interest. This section will define the criteria to be used in the case study examination.

The work of Talen (2003) provides a discussion on the theoretical considerations of implementing Smart Growth. It is particularly important to this research because it contemplates the relationship between common implementation approaches grounded in decision theory and the normative theory behind Smart Growth. In New Zealand, this is a particular consideration for planners attempting to implement normative Smart Growth strategies within an effects-based planning framework established by the RMA.

The choices of measurement used in Smart Growth research are claimed to be loaded with subjective meaning (Talen, 2003). Talen also contends that Smart

Growth relies on spatial partitioning that implies uniformity that is too coarse and often irrelevant. There are thought to be three interrelated aspects of an urban study: Measurement, evaluation and representation of urban form. These serve as a background to a call for new measurement approaches that would more appropriately reflect the material aspects of cities. Current methods of measurement, evaluation and representation are driven primarily by decision theory, which are derived from decisions, and functional theory. Functional theory is related to why and how cities take the form that they do. In current methods of urban measurement, evaluation and representation, normative theory has little impact.

Planners are not provided with significant greenfields development opportunities in Smart Growth, and are faced with working within an existing urban pattern. This means that open space quantification may not be consistent with a greenfields or new town method. Talen also states that much of the vocabulary of Smart Growth and New Urbanism is based on concepts that require new measurement methods. This is certainly the case in applying measurement of space requirement assessment that goes beyond traditional quantitative approaches such as levels of service. For example, the measurement, evaluation and representation of the urban realm have not kept pace with the sophistication of new ideas and how to change them. New Urbanists promote mixed use, accessibility and development according to transect principles. However, Talen asserts that without the tools to effectively measure and represent these ideas, that are essential for implementation, the concepts prove intangible. Smart Growth researchers should be mindful of the fact that research outcomes are significantly dependent on measurement.

Talen's answer to this is that better measurement is required to demystify certain aspects of the physical city such as the public realm, which this research is predominantly concerned with. In the USA, the experience is that the evaluation of the public realm is limited to theoretical and sociological discussion, such as evaluating the role of public life in parking garages and suburban shopping malls. These analyses are important, but there should be some effort made towards answering basic questions about the physical make-

up of public space. For example, we should be able to answer the questions: Are public spaces locationally accessible? Where are they located? What surrounds them? How many people can they accommodate and what does one have to cross to get to them? In New Zealand, many of these factors are taken in to account in the provision of active and passive reserves under the current regime. This is evidenced by the discussion in Chapter Four, which described the historical theory that shaped early levels of service requirements.

The desktop study aspect of this research revealed that there is limited literature on how to actually implement Smart Growth. On its official website, the Smart Growth Network (USA) provides a document entitled "Getting to Smart Growth: 100 Policies for Implementation". For each of the official Smart Growth principles there are 10 corresponding policies and good practice tips. For example, one principle is to "preserve open space, farmland, natural beauty and critical environmental areas". One policy to achieve this is to "adopt a green infrastructure plan", which would set out a framework for future growth by prioritising what open spaces can be protected and what open space should be available for development. Utilising existing infrastructure such as rail lines to provide trails for recreation is cited as a good practice tip. The alternative methods of assessing open space set out similar guidance in terms of asking basic questions about the physical make-up of public space. The methods are described in more detail in the following section.

6.2 Alternative Methods of Assessing Open Space Provision

There are three main alternative means of assessing sufficient urban open space that present a more holistic approach than approaches currently used in New Zealand. These assessment methods are derived from British and European research and policy guidance notes. The Office of the Deputy Prime Minister (ODPM) in Britain states that open space provision should be fundamental to delivering broader government objectives. The following is a description of the British and European approaches.

6.2.1 CABE Space: Green Space Strategies

The CABE Space (2003) guide is designed to steer local authorities through the process of drawing up effective green space strategies based on clear assessments of stakeholders' needs and wishes. The guide builds on another produced by the British Officer of the Deputy Prime Minister. It is hoped that the guide will help provide a blueprint for working in partnership with local communities to deliver excellent parks and green spaces now and in the in the future. It is aimed primarily at local government but its good practice advice will be useful to anyone with responsibility for the planning, design and maintenance of green spaces.

CABE contends that a green space strategy offers an opportunity to improve parks and green spaces, and describes three broad strategies in drawing up a green space strategy:

Stage One: Preliminary Activities –foundation for the preparation of the strategy;

Stage Two: Information Gathering and Analysis –This involves reviewing national, regional and local policy, and in keeping with earlier discussion in the literature review, an analysis of the demographic characteristics of the area. This stage is where the landscape, townscape, visual and ecological characteristics of a locality are established. Also fundamental to Stage Two is an assessment of supply, including site audits and assessments, plus an assessment of needs and demand including consultation. At the city level, outputs are an area profile, site audits, demand analysis, local standards and priority projects.

Stage Three: Strategy Production – Includes strategy formulation and implementation.

During the Information Gathering and Analysis Stage, CABE states that the most effective way to collate this information is via a geographic information

system using a wide range of data sets. The data will help set local standards for the type, location, quantity, quality and accessibility of parks and green spaces to identify gaps in provision and to define priorities for investment. This approach relies on GIS and community consultation. A case study of Stockport Council notes that in order for green space to develop and be responsive to people's current and future needs, there must be involvement and support from the community. CABE also promotes the usefulness of a wide range of community groups forming partnerships with local authorities.

Local standards should be set for quantity, quality and accessibility of green space, based on demographic data, and from the assessment of supply and demand. Standards will serve as a yardstick, as a basis for benchmarking and to assess the need for onsite green space provision in a proposed development or the need for a developer to contribute to the provision or enhancement of offsite spaces or facilities. The latter contribution from a developer is likely to form a large proportion of investment in green space within areas that RINs are implemented in Tauranga.

6.2.2 ODPM: Planning for Open Space

"Public spaces area barometer of a community. As human beings we respond positively and instinctively to places that are welcoming. We want to spend time – and money – in such a community" (ODPM, 2002).

The ODPM (2002) prepared *Planning Policy Guidance 17: Planning for Open Space, Sport and Recreation* (PPG17). These planning policy guidance notes set out the British Government's national policies on different aspects of planning.

The long-term outcomes that the PPG17 aims to deliver are:

- Networks of accessible, high quality open space and sport and recreation facilities, in both urban and rural areas, which meet the needs

of residents and visitors, are fit for their purpose and economically and environmentally sustainable

- An appropriate balance between new provision and the enhancement of existing provision
- Clarity and reasonable certainty for developers and landowners in relation to the requirements and expectations of local planning authorities in respect of open space and sport and recreation provision.

The PPG17 states that the provision of local urban green space is fundamental to delivering broader governmental objectives, including:

- Supporting sustainable development and Urban Renaissance: In Tauranga's case, open space provision may be considered a fundamental element in supporting SmartGrowth, particularly residential intensification. The Urban Renaissance programme also has at its heart urban intensification
- Supporting urban renewal: Where residential intensification is implemented, urban renewal should occur to some extent in the sense that existing urban areas are reliant on residential design guidelines to ensure that they are pleasant places to live from an urban design viewpoint
- Promotion of social inclusion and community cohesion: The 'live, work, and play' concept has the goal of promoting social inclusion and community cohesion, by locating mixed-use facilities within walking distance
- Health and wellbeing: The implementation of SPARC policy is reliant to some extent on the provision and management of open spaces and community facilities at the local level.

According to the ODPM, the broader government objectives are best achieved at the local level, because each community has unique demographic characteristics and existing built development. This has been raised in the literature review; as in Tauranga's case, there are distinct demographic

characteristics that need to be considered in the implementation of Smart Growth. The built environment within RINs is a constraint that affects the ability of TCC to buy additional land for reserves based on current levels of service calculations. In setting policies for open space, sport and recreation, information should be gained from assessments of needs and opportunities to set locally derived standards.

ODPM makes clear that the British government is firmly of the view that achieving these outcomes depends on planning authorities first undertaking local assessments of need and audits of provision. A local assessment of need and audit of provision extends beyond the simple levels of service approach and takes in to account a wider range of criteria. The PPG17 Companion Guide that accompanies PPG17 seeks to build on examples of existing good practice, while also taking account the recommendations of the Government's Urban Green Taskforce and the need for local authorities to prepare community and cultural strategies. The guide also sets out how local authorities can use the planning system to help deliver accessible, high quality and sustainable open spaces and sport and recreation facilities which meet local needs and are valued by local communities. In terms of implementing residential intensification, community buy-in is fundamental to its success; therefore ensuring that local communities value open spaces is particularly important. The main purpose of undertaking a local assessment is to plan positively, creatively and effectively to ensure that there is adequate provision of accessible, high quality green spaces, civic spaces and sport and recreation facilities to meet the needs of local communities and visitors. Specific steps in undertaking an audit of local provision is set out in the PPG17 Companion Guide.

The need for most forms of open space and sports and recreation facilities is largely related to population and this should make it possible to derive broad benchmarks which authorities may find useful. However, the number of people is only one of the factors affecting the amount and provision in the area.

6.2.3 URGE: Making Greener Cities

URGE (2003) was a 38-month long research project. The project consortium consisted of twelve partner institutions from six European countries under the overall coordination of the Department of Urban Regions at the UFZ –Centre for Environmental Research Leipzig-Halle in Leipzig. Six scientific institutions were also involved. Together they formed teams of researchers representing the disciplines of ecology, economics and sociology as well as urban and landscape planning. Five local authorities, with their supporting planning departments, completed the consortium. Each of the Partner Cities selected two green spaces as case studies. The case studies were used to develop, test and refine the concepts and tools developed by the URGE project.

URGE notes that previous research projects concerning green issues have tended to analyse the potential roles and benefits of urban green from the perspective of a single discipline such as ecological or social aspects. The levels of service approach used by TCC are testament to this, since it focuses almost entirely on population and distance elements. As a result, the body of knowledge in the field is disciplinarily separated at both an academic level and in the development, planning and administration of green space strategies.

Recognising the interrelationship between green spaces and cities, this project attempted to go deeper into the nature of complex interactions that take place between different urban green space functions than has occurred in the past. The project tried to develop an integrated point of view, which was able to deal with the future multi-demands being expected of urban green spaces. Such a situation emphasised the need for inter-disciplinary research involving academic institutions with an active collaboration with city partners, and this largely defined the way in which the URGE-Project was organised. This collaboration made possible the objective of URGE, which was to develop instruments that could be used to help improve the provision of urban green spaces, both qualitatively and quantitatively. The project's overall aim was to enhance the quality of life of the urban population and contribute to the sustainable development of European cities.

As an early output, the project consortium complied a catalogue of standardised interdisciplinary criteria regarding open space within the urban realm, which formed the based for the "Interdisciplinary Catalogue of Criteria" (ICC). Criteria for the ICC were developed from the multi-perspectives of ecology, economics, social science and planning.

The URGE-project notes that the development of the criteria contained within the ICC, as well as their further evaluation was undertaken using different Case Study Cities selected from all over Europe and enabled the international application of the project outcomes. The ICC were organised in to four criteria groups:

1. Quantity of urban green: To determine the physical characteristics of the urban green system or single spaces, measured by quantitative indicators;

2. Quality of urban green: Considers qualitative aspects (e.g. species habitat and diversity);

3. Use of urban green: To identify and analyse the types and range of uses and t determine the general trends in usage patterns; and

4. Planning, development and management of urban green: these criteria focus on administrative processes.

Two sets of evaluation methods were then applied to the results of the criteria assessments, using specific software. The evaluation methods are designed to enable the user to identify problems in the performance or provision of urban green –an essential precondition for the development of strategies for the future improvement of a green space.

6.3 Alternatives

Table One sets out an analysis of the strengths and weaknesses of each alternative assessment method in terms of its usefulness and relevance for this research. The method(s) with the least relevance are accorded a 'x', meaning

that they will not be used for the case study, and the method with the greatest relevance and usefulness is accorded a '√', indicating that this is the preferred method for use in the case study. The basic criteria to be used includes:

- Able to be applied with limited resources available
- Availability of data. For example does the method explain how it is to be applied?
- Ease of use. For example does it propose complicated, multi-disciplinary assessments?
- Applicability to New Zealand context.

Table One: Assessment of Alternatives

Assessment Method	Strengths	Weaknesses	Decision
Office of the Deputy Prime Minister: PPG17	The ODPM is a British model which is as close to appropriate as possible in terms of application in New Zealand because the country is still to some extent culturally tied to Britain.	Does not provide a robust methodology for the quantitative aspect of the analysis.	✓
	Earlier discussion discussed the extent to which New Zealand borrowed predominantly British models in town planning and open space provision and adapted them to local conditions. A strength of this criteria is that it presents the opportunity to apply a British standard in the 21st century and in different conditions.	Provides information on how the criteria can feed in to an overall open space strategy, rather than a stand-alone process	

Assessment Method	Strengths	Weaknesses	Decision
	Provides best practice examples rather than 'armchair theorising'. Indicates extensive research. The ODPM provides extensive details in terms of how to undertake the criteria assessment. Cost effective in terms of this research, for example specific software is not fundamental to the analysis. Time efficient for the purposes of this research.	May rely too heavily on subjective measurement techniques.	
Commission for Architecture and the Built Environment: Green Space Strategies	The CABE criterion builds on the principles of the ODPM model, with more detail. Focuses on community involvement in the design of green space strategies to a greater degree than the ODPM model.	For the purposes of this research it may not be practical to rely on community consultation within the time and cost constraints. This criteria has a strong focus on the use of landscape architecture expertise in undertaking audits of local green space.	X

Assessment Method	Strengths	Weaknesses	Decision
	Provides a number of good practice examples that show successful alternative approaches to what is currently used or have been used in the past.	This criteria has a strong focus on the use of Geographic Information Systems, using a wide range of data sets. Time and cost constraints of this research would hinder this analysis.	
Urban Green Environment: Making Greener Cities	URGE is a practical guide to the application of green space criteria. This document provides a number of site level and city level case studies, across Europe and Britain, to show use of the criteria in practice.	Both evaluation methods rely heavily on the use of software for the assessment. For the purposes of this research time and cost are constraints to the use of software.	X
	Provides two criteria options, with an analysis of the strengths and weaknesses of both.	The reliance on software for the assessment does not indicate malleability to unique situations and qualitative measurement. Use of software is inherently quantitative.	
	This research provides a British link, in that one of the case studies is undertaken in Birmingham.	The overall goals of the project are best applied on a larger scale (Europe) than in New Zealand; hence the use of the criteria may not be entirely appropriate to this level of research.	

Assessment Method	Strengths	Weaknesses	Decision
	Provides useful conceptual information in terms of the range of elements that should be considered in assessment and provision of green space. Focuses on the interrelationship between the ranges of elements.		

The three sets of alternative assessment methods have been described along with an analysis of their strengths and weaknesses. It has been determined that the ODPM (2002) criteria is most appropriate for the purposes of this research. While the URGE approach is comprehensive and provides a number of practical examples, time and cost factors associated with the use of software are primary reasons that this approach is not appropriate. The CABE document is a useful extension on the ODPM guide though its focus is on community consultation, and it has a strong focus on the use of landscape architecture expertise for undertaking audits of green space. As outlined in Table One, it is apt that a British model is adapted to New Zealand conditions, given that New Zealand still has cultural ties to Britain and much of the layout and design of its urban areas was influenced by British models. Also earlier approaches to planning and open space provision in particular were based on British models. It may be possible in this research to determine whether overseas models can still be applied successfully, using local variations. The ODPM (2002) alternative assessment method will be adapted to local circumstances for application in a case study of the proposed RIN at Bayfair in Mount Maunganui.

6.4 Assessment and Audit of a Green Space: Bayfair

The PPG17 Companion Guide sets out the components of an open space assessment, including both quantitative and qualitative elements. If this alternative assessment method proves to be successful when applied in local conditions, the result may be that TCC is not required to buy additional land within the proposed Bayfair RIN but it may have to contemplate some upgrade of existing areas. Incremental improvements coupled with residential design guidelines may satisfy the future requirement for open space. The ODPM alternative assessment method will be adapted to suit the local conditions and applied to the reserves within the proposed Bayfair RIN, to determine its applicability in New Zealand urban areas undergoing residential intensification.

The following sets out the process for undertaking the audit of open space using a broader range of assessment methods than currently used by TCC

within the proposed RIN. The following is the general process set out by ODPM in developing an open space strategy. This research is generally concerned with the first four steps in the process: identifying local needs, auditing local provision setting provision standards, and applying provision standards.

ODPM PPG17: Recommended Steps in Developing an Open Space Strategy

Step 1: Identifying Local Needs

Step 2: Auditing Local Provision

Step 3: Setting Provision Standards = design guidelines...quantitative, qualitative, accessibility.

Step 4: Applying Provision Standards: Key actions:

    Identify deficiencies in accessibility

    Identify deficiencies in quality

    Identify quantitative deficiency

    Identify special distribution of unmet needs

    Forecast future needs

Step 5: Drafting policies

Step 6: Implementation.

The following sets out the key actions related to each step in undertaking a local assessment. Not all of these key actions will be undertaken due to a number of constraints, including time and the extent of this research. It is noted that this document was designed to guide local authorities in the preparation of strategic green space documents at a practical level. It is not realistic to follow the process entirely for the purposes of this research, particularly as it is not possible to, for instance, undertake the public consultation that is an integral part of these processes.

6.4.1 Step One: Identifying Local Needs

Key Actions:

- Initiate a local assessment which will be PPG17-compliant

- Identify the land use implications of existing national, regional and local policies and strategies for open space or sport and recreation
- Review the impact and effectiveness of existing planning policies and related provision standards.

An identification of local needs has been undertaken through the literature review in Chapters 3, 4 and 5 of this research. Each 'Key Action' has been satisfied as part of the literature review and desktop study.

The discussion on Smart Growth provided the basis for identifying the land use implications for a proposed local policy (as required in Step One above). Implementing residential intensification as part of Smart Growth will mean a higher density of development, which reduces private open space and puts increased pressure on public spaces to satisfy the community's leisure requirements. Design guidelines implemented as part of residential intensification may go some way towards alleviating the loss of private open space associated with higher densities.

Chapter Four identified that long-established standards used by Councils today for providing open space are aimed at a different demographic from that of the target communities of the future. This is evidenced by New Zealand's ageing population and it is even more relevant in the western Bay of Plenty sub-region – 35% of the population will be aged over 85 by 2051. SPARC has identified that 'older' adults participate regularly in physical activity of some kind, though older adults in New Zealand are less likely than adults overall to be involved in a wide range of recreational and sporting activities.

Chapter Five highlighted the relevant legislation with respect to reserve provision and its use in New Zealand.

6.4.2 Step Two: Auditing Local Provision

Key Actions:

- Decide the scope of the audit and identify existing information
- Plan and undertake the audit
- Analyse the audit to identify distance thresholds, levels and types of use, the quality and value of the provision, the quantity of provision and local opportunities.

The scope of the audit in this instance is an analysis of the existing reserves within the proposed Bayfair RIN. A map of the proposed RIN is shown in Figure 16 on page 93. Note that this map is indicative only; it is still in draft form for the purposes of consultation. The reserves that were assessed are in or around the '400m' and '800m' buffer lines. Existing information on the open space provision within this node is described in Chapter One, and this was a culmination of analyses undertaken as part of research by Eng (2002). The research revealed that if residential intensification were implemented within the proposed Bayfair RIN, using the traditional population to area ratio, there would be an overall open space deficit of 2.5 hectares.

The CABE Space document suggests that a site-based qualitative evaluation of existing parks and green space should be carried out using an assessment proforma. The amount of information collected will be dependent on time and the resources available. It is important to define an appropriate content and level of detail for the audit to ensure that data collection is not unnecessarily detailed or time consuming and recommends testing the audit methodology on a pilot reserve. As a minimum, audits should include information on size, facilities, quality, function (recreational and non-recreational), levels of use and accessibility. The audit of local provision will analyse each individual reserve within the proposed Bayfair RIN to determine the current rating of the open spaces based on quality, general accessibility and other factors.

Bayfair Residential Intensification Node

Legend

- Bayfair Node
- Bayfair Node 400m
- Bayfair Node 800m
- Study Area
- Reserve
- Commercial Business Zone
- Industrial Business Zone

1:8,000

0 100 200 400 600 800 Meters

N

MACDONALD STREET

PACIFIC FAIRWAYS DRAINAGE RESERVE

PACIFIC FAIRWAYS DRAINAGE RESERVE

BOEING PLACE

LINKS AVENUE

ASCOT PLACE

ASCOT ROAD

EPSOM ROAD

EPSOM RESERVE

SPUR AVENUE

MAUNGANUI ROAD

BERWICK PLACE

BERESCOURT RESERVE

BERESCOURT PLACE

OCEANBEACH ROAD RESERVE

LINKS AVENUE RESERVE

SOLWAY PLACE

CRANE STREET

LACHLAN AVENUE

PATERSON STREET

CONCORD AVENUE

CARTER STREET

CARYSFORT STREET

CARYSFORT STREET

LEANDER STREET

OCEANBEACH ROAD

OMANU GOLF COURSE

HARRIS STREET RESERVE

FARM STREET

TAUPO AVENUE

GIRVEN ROAD

KOROWAI STREET

MARANUI STREET

OMANU BEACH RESERVE

YALE STREET RESERVE

KANIERE STREET

HAWEA STREET

ZAMBUK WAY

GRENADA STREET

GRENADA PARK/ARATAKI

MATAPIHI ROAD

EVERSHAM ROAD

GLOUCESTER ROAD

SEASPRAY DRIVE

GOBRAY CRESCENT

SUNBRAE GROVE RESERVE

OLEANDER LANE STORMWATER RESERVE

OLEANDER LANE

THE GREEN

RUSSLEY DRIVE

MONOWAI STREET

TANIA PLACE

PACIFIC PARK

AZALEA DELL

BAYFAIR DRIVE

OWENS PLACE

EXETER STREET

CRICHTON TERRACE

REILLY AVENUE

SUNRISE AVENUE

BAYFAIR RESERVE

TAHARA RESERVE

REILLY AVENUE RESERVE

SUNRISE AVENUE RESERVE

PLATEAU HEIGHTS

STATE HIGHWAY 2 SOUTH

TRUMAN LANE

EVERSHAM ROAD RESERVE

EVERSHAM ROAD

DENNY HULME DRIVE

ABELIA AVENUE

LOTUS AVENUE

HADLEIGH RESERVE

OCEANDOWNS RESERVE

HIBISCUS AVENUE RESERVE

Tauranga City

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The audit form is to be borrowed from the CABE Space document, because of the absence of similar guidance in the OPDM document, it is in line with the approach to be taken and it is easy to use. Individual criteria have been grouped together under a set of categories, with several questions in each one. The form will provide cumulative scores for each category and a succinct set of headings for the presentation of the results from the audit process. The audit form includes a number of subjective assessment questions. In order to achieve consistency in answering the subjective audit questions, two reserves in Tauranga have been used for the purpose of comparison, which in effect provides a consistent baseline from which each reserve within the Bayfair RIN can be assessed. The features of the two 'baseline' reserves are discussed in Section 6.5 below, and an example of the audit form is contained in Appendix Two. The baseline reserves are used in the analysis for the purpose of ensuring consistency when assessing the reserves in the proposed Bayfair RIN. They are considered essential for progressing the analysis to decrease the potentially subjective nature of the audits and to make sure that the assessment is credible.

6.4.3 Step Three: Setting Provision Standards

Key Actions:
- Determine the quantitative component
- Determine the qualitative component
- Determine the acceptability component
- Determine the minimum acceptable size component
- Determine the site area multiplier component
- Determine the cost components.

For the purposes of this research Steps 3 and 4 of the PPG17 were combined. Existing information on the perceived reserve deficit was based on quantitative levels of service provision, and location allocation information from Eng (2002) are combined with the alternative assessment method to determine if the current reserve provision within the Bayfair node meets the needs of the

existing population and whether it will be sufficient to meet the needs of a population if residential intensification is implemented.

6.4.4 Step Four: Applying Provision Standards

Key Actions:

- Identify deficiencies in accessibility
- Identify quality deficiency
- Identify areas of quantitative deficiency or surplus
- Identify the spatial distribution of unmet needs
- Forecast future needs.

Step Four is described in Chapter 7 –Analysis and Discussion. As described under 5.4.3, for the purposes of this research Steps 3 and 4 are combined. Existing information on reserves and the application of the alternative assessment method are culminated to fulfil the key actions in 6.4.4. Then conclusions and recommendations are made in terms of the way forward for TCC once the results of the case study are discussed.

6.5 *Application of An Alternative Assessment Method: Discussion*

This will describe the process taken in applying the alternative assessment method to the proposed Bayfair RIN. The reserves were divided and assessed separately (depending) on the basis of the reserve's zoning in the Tauranga District Plan (TDP). The TDP defines Passive or Neighbourhood Reserves as 'Recreation A', and Active Reserves or sports grounds as 'Recreation B'.

- **Passive/Neighbourhood Reserves –'Recreation A'**: Passive reserves are parks that are not used primarily for sports events. They are often known as Neighbourhood Reserves. Activities undertaken on a passive reserve may include family barbeques, picnics, walking and informal use of playgrounds by children (where playgrounds are provided). While

these parks may sometimes be used for sports or events, it is not their primary purpose.

- **Active Reserves –'Recreation B'**: Active reserves are TCC's larger parks that are used primarily for organised sport, and events (Tauranga City Council, 2004). The active reserves are zoned 'Recreation B' under the Tauranga District Plan. There are three reserves zoned 'Recreation B' within the proposed Bayfair RIN.

The District Plan Maps G5, H6 and H7 contained in Appendix Two show the reserves within the proposed Bayfair RIN. The Mount Maunganui Golf Course is not included in the analysis because it is outside of the study area and because it could be expected to serve a citywide catchment. Each of the passive reserves was assessed using the audit form, and Memorial Park in Tauranga provided the 'baseline' reserve from which to compare each passive reserve. Memorial Park is an example of a reserve that provides significant benefit to a broad demographic group because it provides:

- A diverse range of facilities;
- Has a clear purpose and orientating features;
- Is accessible; and
- Contains appropriate signage and distinguishing features that contribute to its identity.

Figure 17: Memorial Park

It also contributes to the amenity values of the area, as it contains a large number of established trees and is located on the shores of one of the Tauranga Harbour inlets. The scale, size and assumed function of each reserve was taken in to account when compared to Memorial Park.

The Wharepai Domain in Tauranga provided the 'baseline' active reserve from which Links Reserve, Grenada Park and Gloucester Road reserves were compared. A baseline is required to provide a reference point when comparing the reserves and also to give credibility to the assessment. Wharepai Domain provides a combination of active and passive reserve in a similar fashion to Grenada Park. It provides a combination of sports facilities and is accessible on Cameron Road, which is a collector road.

Figure 18: Wharepai Domain

An initial pilot assessment was undertaken on two reserves, to determine the suitability of the audit form prior to proceeding with the overall assessment. Berescourt Reserve (Recreation A) and Grenada Park (Recreation B) were used for the pilot assessment. In the TDP there is a specific zoning for 'Conservation', and none of the reserves assessed in this research are subject to this zoning. Therefore it was considered that natural heritage is not a relevant item to include in the audit form. The cultural heritage criteria relate primarily to buildings and items of historical significance. These aspects of the assessment may hold more relevance when applied in Britain, due to the long history of that nation relative to New Zealand. Tauranga City and particularly the proposed Bayfair RIN are more recently established in relation to British

urban areas. None of the reserves contain any historic buildings or historic landscape features.[17] Moreover like most New Zealand reserves they all featured a mixture of native and exotic trees and shrubs. The result of the pilot assessment was that the Natural Heritage and Cultural Heritage categories were excluded from the audit form. These categories were omitted from the audit form when the remainder of the reserves were assessed.

It is important at this point to explain what each of the audit form questions look at and measure, before providing a description of the results in the following chapter. As discussed earlier, the audit form was divided in to a number of categories under which more specific questions about the nature of the reserve were listed. The following provides a breakdown of each of the questions used in the case study:

1. **Access**

   1.1 Are the entrances well located and accessible? Are the entrances located off the street? *Where there is vehicular access to the reserves is this clear and safe? I.e. access from a state highway is not desirable. Does a street footpath provide continuation and/or linkage to walkways across the reserves?*

   1.2 Are the entrances welcoming? *Are the entrances clear of obstacles/or trees that could make the reserve appear unsafe? Tall fences are not welcoming.*

   1.3 Does the infrastructure cater for the needs of the disabled? *Are the entrances easily navigable by those with disabilities, such as a concrete path (where relevant) for use by the wheelchair-bound?*

   1.4 Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*

2. **Landscape Quality**

   2.1 Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate*

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[17] With reference to the Historic Places Act 1993.

size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.

2.2 Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*

2.3 Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*

2.4 Is the space's structure understandable with a clear focus and orientating features? *Is it clear what the space's intended use is? This could include a diversity of activities, for example a walkway and a playground. The walkway could provide orientation. For instance Memorial Park provides a one-kilometre walkway that circulates the reserve and serves to divide the reserve in to smaller spaces, which provides orientation.*

3. Facilities

3.1 Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*

3.2 Are the facilities appropriate to the space's size and location? *Are there facilities in the space that appear to have no purpose? Also is there a lack of facilities that cannot be explained?*

3.3 Are the buildings well designed and located? *Are the buildings accessible? For instance do they located in a central point on the reserve or is it unclear where to find the buildings from the main entrance? Well designed community buildings will provide a wide range of facilities, such as toilets and showers, as well as gathering areas for large numbers of people.*

3.4 Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.*

4. Maintenance

4.1 Is the space clean and free from litter and dog fouling? *This question is rated according to its level of cleanliness. For example, a reserve with nil or low levels of litter and/or dog fouling will receive a rating of 4-5, whereas a reserve with noticeable rubbish and/or dog fouling will receive a rating depending on the extent of these characteristics.*

4.2 Are the fabric, furniture and buildings well maintained? *For instance are there buildings that need repainting or obvious maintenance? Is there broken reserve furniture? Do rubbish bins need upgrading? Are the sports facilities (such as cricket nets) in need of repair?*

4.3 Is the planting well maintained? *Are the trees and shrubs clipped back, particularly for safety reasons?*

4.4 Are the grass areas well maintained? *Is there evidence to suggest that the grass is mown regularly? Is the ground even, particularly on sports pitches?*

5. Management

5.1 Is the level of management appropriate to the size and nature of the space? *Is there evidence that the site is over managed, or under managed in relation to other reserves in the area?*

5.2 Is there information on how to contact management services? *Is it clear who administers the space? Is there a general contact number for the administrators?*

5.3 Is there information on events and activities? *This is probably most relevant in the 'Recreation B' reserves, and where community buildings exist on the reserves. Information could be represented on notice boards.*

5.4 Is there evidence of community involvement? *For example tree planting, murals etc.*

6. Safety and Security

6.1 What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*

6.2 To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*

6.3 What are the levels of vandalism? *Nil-Low levels of vandalism will receive a high score.*

6.4 Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*

7. **Health**

7.1 Is there an appropriate level of sports/exercise facilities? **'Recreation A'**: *Consider in light of the purpose of the reserve outlined in the Neighbourhood Reserves Management Plan 2002. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* **'Recreation B'**: *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*

8. **Responses to People**

8.1 Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a 'Recreation A' reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture is not as applicable as UK. Does a 'Recreation B' reserve encourage use outside of peak use times? An example might be dog-walkers.*

The audits of the reserves were undertaken at a similar time of day, being a weekday and in the morning, between 8.45am and 11.30am. The completed audits, including the pilot assessments, are contained in Appendix Three. The following section discusses the results from applying the alternative assessment method to reserves within the proposed Bayfair RIN.

7.0 Analysis and Discussion

7.1 Introduction

The purpose of undertaking the case study was to determine whether an alternative methodology to measuring urban open space is appropriate in places where residential intensification is implemented under Smart Growth. Applying the alternative assessment method has revealed that the reserves provided in the proposed Bayfair RIN are not currently operating at their full potential. This is an issue that would need to be resolved by TCC before residential intensification is implemented. Further discussion on the implications of the results will follow in Chapter Eight.

As discussed earlier, the reserves within the proposed Bayfair RIN were divided in to two major categories for assessment, being 'Recreation A' or passive/neighbourhood reserves, and 'Recreation B' or active reserves. The analysis of results is similarly divided in to these two categories for consistency. Percentage totals for each reserve have been derived from the results. An overall percentage score was recorded as an average from the results of each assessment category. A spreadsheet showing the individual scores in each category is contained Appendix Three. This is to ensure that a relevant comparison between reserves can be made, as some of the assessment questions were not relevant. For example, one question: "Is the furniture well designed and located?" This question holds no relevance where a reserve contains no furniture, in which case the question is therefore marked 'not applicable' and omitted from the total score.

7.2 'Recreation A' Passive Reserves

There are six reserves zoned 'Recreation A' within the proposed Bayfair RIN. Berescourt Reserve, Epsom Road Reserve, Eversham Road Reserve, Grenada Park, Pacific Park and Tahara Crescent Reserve. The 'Recreation A' reserves

are classified in TCC's Neighbourhood Reserves Management Plan (2002) as follows:

1. **Family neighbourhood reserves**: Reserves that provide space for family activities. They have playgrounds and ancillary facilities such as seating and picnic tables, as well as a large area of open space.
2. **Neighbourhood reserves with amenities**: Reserves that offer some amenities, but do not offer enough to be considered family reserves.
3. **Connecting neighbourhood reserves**: Reserves that provide a walkway link from one place to another. This is the primary function of the reserve.
4. **Green space neighbourhood reserves**: The primary function is to provide areas of green space in a neighbourhood. They are usually planting focussed, and may have a special feature, such as a walkway or heritage site.
5. **Undeveloped neighbourhood reserves**: Reserves that have been set aside for neighbourhood reserve purposes, but have not yet been developed.

The classification of the 'Recreation A' reserves in terms of the Neighbourhood Reserves Management Plan (NRMP) was taken in to account when the alternative assessment method was applied. The results of applying the alternative assessment method are discussed in relation to each of these reserves below.

7.2.1 Berescourt Reserve

Berescourt Reserve is identified in TDP Map G5 and is approximately 10,060m^2 in area. It is a reserve that provides a link between Berescourt Place and Oceanbeach Road, and its reserve category is 'Greenspace'.

Berescourt Reserve scored an average of 65.6% as a result of applying the alternative assessment method. This is the second highest percentage score of all the passive reserves assessed within the proposed Bayfair RIN. 'Facilities',

'Responses to People' and 'Health' are categories in which Berescourt Reserve rated favourably. For the purposes of the case study assessment, 'special features that give the space local distinctiveness' were identified as distinctive features, facilities or amenity values, or the reserve could be located in a locally distinctive area, such as Memorial Park. Memorial Park is located adjacent to one of the Tauranga Harbour inlets and is less than one kilometre from the Tauranga central business district. A special feature giving Berescourt Reserve local distinctiveness is its location adjacent to the Mt Maunganui Golf Course. The fence that separates the reserve from the Golf Course allows a view between the two, and this is shown in Figure 19.

Figure 19: Berescourt Reserve

Berescourt Reserve provides a walkway link from Berescourt Place to Oceanbeach Road by way of a meandering path through the reserve (TCC, 2002). The entry/exit point of the reserve on Oceanbeach Road is situated 50 metres from a beach access, linking access between Berescourt Place and the beach. The path running through the reserve provides orientation and purpose, but this coupled with the absence of other reserve furniture or facilities could contribute to limiting its use. The orientation of houses towards the reserve at the southern end likely provides amenity values for surrounding properties and would also contribute to increased safety in the reserve. The boundaries of the reserve are generally attractive but plantings in some areas need to be better maintained to improve safety and attractiveness.

7.2.2 Epsom Reserve

Epsom Reserve ranked well in terms of passive reserves within the Bayfair RIN. It is identified in TDP Map G5. This reserve scored a total of 70 out of a possible 110 (65.0%). It is categorised as a 'Reserve with amenities' in the TCC Neighbourhood Reserves Management Plan and is approximately 8,290m^2. The exceptional features of Epsom Reserve were in the 'Maintenance' and 'Landscape Quality' categories. This space is multi-functional, as it contains a playground containing equipment that could be used by pre-schoolers. The play equipment has an adventure element that would allow it to be used by older children and the reserve also has open grassed areas. Epsom Reserve provides linkage between Links Avenue and Epsom Road, although there is no path. The children's play area is well maintained and there are a variety of scales with established trees.

Figure 20: Epsom Reserve

A limitation of the reserve is that access from Epsom Road is not clear. There is a narrow access point that is gradually becoming overgrown and that this means that the sightline into the reserve and identification of an entry point is becoming difficult.

7.2.3 Eversham Road Reserve

Eversham Road Reserve provides amenity values to its immediate area. It is identified in TDP Map H6. Eversham Road Reserve's score against the alternative assessment method was 55%. The NRMP categorises this reserve as 'Greenspace reserve', and is described as "*a small oasis located in the middle of Eversham Road, where the road splits around either side of the reserve.*"

Figure 21: Eversham Road Reserve

It is easily accessible and visible, but it needs improved maintenance. The reserve may need to be provided with a play area for children in the future, as there is currently informal play equipment, consisting of a tyre swing tied on to one of the established trees. This indicates that the users of the space may be of a younger age group.

7.2.4 Grenada Park 'Recreation A'

The Recreation 'A' section of Grenada Park is unique in that a significant portion of this part of the reserve is the location of a new Aquatic Centre. Grenada Park is identified on TDP Map H6. It is not itemised in the NRMP. The Aquatic Centre will provide a significant recreation resource to the Bayfair area and Mount Maunganui in general, though it is difficult to assess it as it was

still under construction at the time of this research. It is possible to make some general statements about the features of the Aquatic Centre and how these features will serve the community. The design of the Aquatic Centre is to serve a multi-purpose function to the community. Features of the Aquatic Centre include an international standard 25 metre by 25 metre pool which will provide for a broad range of activities such as swimming training and competition, casual use, swimming lessons for all ages, recreational swimming, aqua jogging and aqua aerobics. The Centre will also contain a leisure pool, a parent and toddler pool, hydroslide and a health and fitness centre. The health and fitness centre will include a gymnasium and aerobics area, along with massage and physiotherapy facilities. The Aquatic Centre has been designed and promoted to cater for all age groups. Figure 22 shows the location of the Aquatic Centre in relation to the remainder of the Grenada Park 'Recreation A' and 'Recreation B' areas. Figure 23 the shows the Aquatic Centre layout. The range of facilities for a wide age group is of particular relevance.

Figure 22: Location of Aquatic Centre

Aquatic Centre

Playground

Recreation A –
Passive
Reserve

Church

Recreation B –
Active Reserve
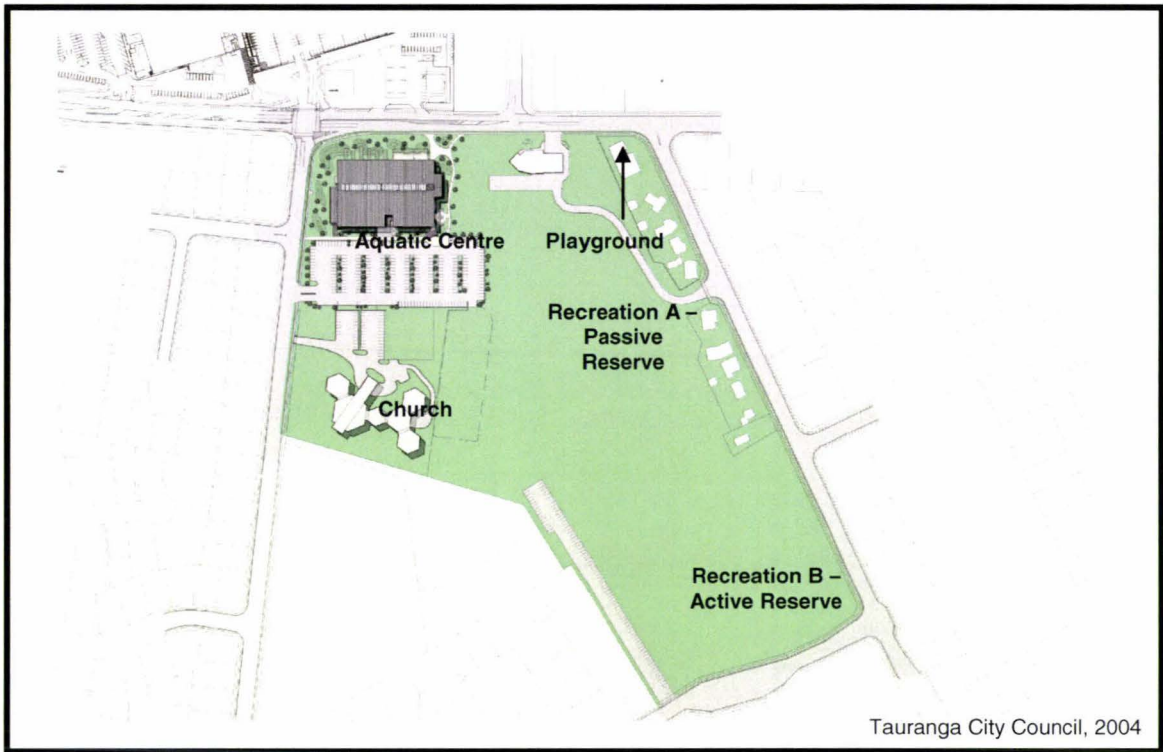
Tauranga City Council, 2004

Figure 23: Aquatic Centre Layout

Crèche

Wave Pool

10 Lane Pool

Learners
Pool
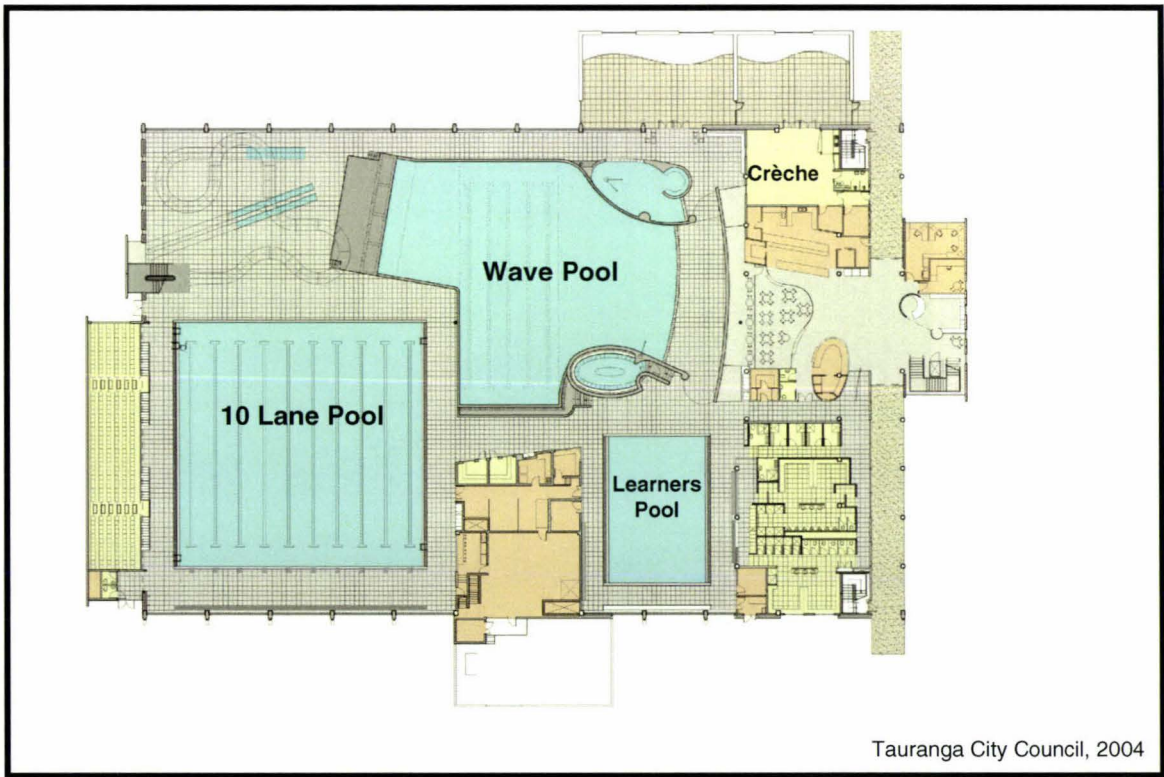
Tauranga City Council, 2004

Note that the 'Gym and Wellness Areas' are to be located on the first floor of the Aquatic Centre and are not depicted in Figure 23. Figure 24 below shows the Aquatic Centre currently under construction.

Figure 24: Aquatic Centre Under Construction

The balance of the 'Recreation A' section of Grenada Park that is not currently affected by the Aquatic Centre construction was assessed. The result of applying the alternative assessment method to this part of Grenada Park was 60.0%. It is noted that there is a larger area of 'Recreation A' zoning to the south of the playground, though this area is not currently provided for any recreational use (this area can be seen in the background of Figure 25 below). Though it is possible that this is a result of the Aquatic Centre construction activities.

Figure 25: Grenada Park 'Recreation A'

There are no benches provided in the children's play area, but the reserve is located beside a bus stop, which may contribute to its accessibility. The reserve's function within the overall space is appropriate –as part of a larger recreation and open space facility. The 'Recreation A' section of Grenada Park would not go a long way towards providing amenity values to the surrounding area due to its small size; the 'Recreation B' section contributes to the amenity values of Monowai Street and Grenada Street indirectly. The Aquatic Centre will reduce the green space area of Grenada Park overall as it is taking up a considerable portion of the 'Recreation A' zoning, though it will fulfil a wider recreation function for the community.

7.2.5 Pacific Park

Pacific Park is located on Matavai Street and identified in TDP Map H6. It is categorised in the NRMP as a 'Reserve with amenities' and has an approximate area of 10,120m^2. This reserve scored the highest in terms of its current contribution to open space and recreation values within the proposed Bayfair RIN, with an average percent score of 68.5%. This reserve is a rich and stimulating environment compared with some of the other passive reserves within the proposed Bayfair RIN. It provides a playground, mature trees, walkway linkage and a bench. This reserve has a clear identity as a neighbourhood reserve. It has a variety of scales and space, with mature trees and shrubs. The accessway from Bedford Place adds to the reserve's access functionality but only provides amenity values to Matavai Street. Improvements could be made to Pacific Park in the Landscape Quality category, specifically by improving the boundaries of the reserve. This could be achieved by fence painting to reduce vandalism.

Figure 26: Pacific Park

7.2.6 Tahara Crescent Reserve

Tahara Crescent Reserve is a secluded reserve joining two cul-de-sacs: Tahara Crescent and Mahina Place. It is identified in TDP Map H6, and is categorised in the NRMP as a 'connecting reserve' with an approximate area of 2,410m^2. It received an average percentage score of 47.7%.

This reserve exhibits some attractive boundaries, as some of the bordering properties are orientated towards the reserve. However the reserve also features some unattractive boundary fencing, and there is an area of the reserve that was in shadow when the site visit was undertaken at 9.30am, which is potentially unsafe for users of the reserve. The reserve provides good access and walkway linkage to other streets. Trees beside the path that links Tahara Crescent and Mahina Place provides orientation. The Mahina Place access is well located and welcoming, as it is a continuation of the footpath. The passive reserve function could be improved by better maintenance and a clearer focus.

Figure 27: Tahara Crescent Reserve

7.3 Recreation 'B' Active Reserves

7.3.1 Oceandowns Reserve

Oceandowns Reserve is a unique reserve because it is zoned 'Recreation B' but is undeveloped, and is included in the NRMP. The reserve is categorised in the NRMP as 'undeveloped reserve' and its policy states that consideration will be given to the development of Oceandowns Reserves as illustrated in the Concept Plan (see Appendix Three). Part of this reserve is subject to a 18-year Transit New Zealand roading designation, which goes some way towards explaining its generous size. The label "TR18" on TDP Map H7 identifies the designation affecting the reserve. Gloucester Road runs parallel to State Highway 2, with the reserve linking the two roads by a walkway. If State Highway 2 were eventually widened to four lanes, the designated section of Oceandowns Reserve would be converted to a 'lane' to provide access to a small number of residential properties located on State Highway 2. It is not anticipated that this will reduce the functionality of the reserve in the future (see Concept Plan). It is a large reserve in comparison with the passive reserves in the node in terms of area but it currently appears to fulfil an amenity reserve function. It is planted in places and a footpath across the length of the reserve links State Highway 2 with Gloucester Road. The footpath appears to be

located over the area affected by the Transit New Zealand designation. This reserve is within an area of the proposed Bayfair RIN that is most recently developed in 'Residential A' zoning. This reserve received an average percentage score of 49.0%.

From Gloucester Road there are two entrances to the reserve: the north entrance is more welcoming than the south. The north entrance leads to the path that runs the length of the reserve. The reserve contains some fairly recently established vegetation in relation to some of the other parts of the RIN. This reserve received an overall low rating because its purpose does not appear clear to the user. While it is zoned 'Recreation B' and is of an adequate size to provide active reserve facilities, it is not currently developed and is not operating at its full potential as a passive reserve in accordance with the NRMP. The reserve rated poorly in the 'landscape quality', 'facilities' and 'responses to people' categories. It is a reserve that is not developed on a human scale and there are no distinguishing features though this is consistent with its categorisation of 'undeveloped reserve' under the NRMP. The land provides a valuable resource that is currently under utilised –this reserve would need to be developed as proposed in the NRMP or similar if residential intensification was implemented, in order to fulfil its potential to the community.

Figure 28: Oceandowns Reserve

7.3.2 Grenada Park 'Recreation B'

Grenada Park is identified in TDP Map H6. Grenada Park was created in 1966 when Kingswood Projects subdivided the land and as part of the subdivision reserve contribution, vested part of the Grenada Park as recreation reserve (Tauranga City Council, 2004). The community hall at Grenada Park was formerly the Arataki Sports Clubrooms. The building was taken over by Council and is now operated as a community hall. The previous reserves policy (prior to the Draft Active Reserves Management Plan released in August 2004 by TCC) aimed at acquiring this land for community and sporting purposes. As a result, there are several privately owned community activities near to the park. The sports fields are used for rugby and softball (training), and the community hall is used for boxing and martial arts. The reserve received an average percentage score of 60.7%.

On the day this reserve was assessed it was being utilised by people walking their dogs, indicating that this reserve fulfils an off-peak function. The community hall requires re-painting but there is good accessibility through to the passive section of the reserve. The Draft Active Reserve Management Plan proposes to remove the community building in the future, on the basis that it is "under-utilised" and "not fit-for-purpose". This may go some way towards explaining why the hall has run in to disrepair. The reserve features attractive boundaries with mature trees, particularly the northern boundary, however some graffiti detracts from the attractiveness of the park. Figure 29 on page 115 shows some of the features of Grenada Park, including the rugby goalposts and community building.

Figure 29: Grenada Park 'Recreation B'

TCC's Draft Active Reserve Management Plan proposes improvements to Grenada Park, particularly the 'Recreation B' area of the reserve (Grenada Park Draft Concept Plan is contained in Appendix Three). If these improvements proposed by the Draft Active Reserve Management Plan were implemented, this would increase the diversity of use of this reserve and also its contribution in the area as an informal recreation resource (off-peak). It may contribute to offsetting any potential quantitative deficit in passive reserves within the RIN, specifically with the proposed walking track.

The Draft Active Reserve Management Plan identifies the role of Grenada Park within the active reserve network as follows: "Grenada Park is a community sport park that has the potential to cater for junior sports in particular. This type of use will be encouraged in the future. Protection of the green space is important as the Bayfair area continues to grow."

The Aquatic Centre located at Grenada Park would go some way towards offsetting any perceived quantitative deficit in passive and active reserves in the future.

7.3.3 Links Avenue Reserve

Links Avenue is located on land that was the original Mount Maunganui Golf Course (Tauranga City Council, 2004). Following World War II, financial difficulties led to negotiations with the landowners and the crown to establish a new location for the Golf Course. In 1946 the Crown bought the current golf course land as a domain on the condition that 10 acres of the old golf course was set aside for other sports. This became known as the Links Avenue Reserve.

Figure 30: Links Avenue Reserve

Tauranga City United Association Football Club and the Mount Maunganui Junior Soccer Club are the main users of the reserve. The Mount Maunganui Dog Obedience Club uses the top field for club training and competitions. Several community groups also use the large clubrooms. Links Avenue Reserve received an average score of 66.4%; this was the highest average out of all the 'Recreation B' reserves assessed. This reserve is also included in the TCC Draft Active Reserves Management Plan. The proposals for this reserve are shown in Appendix Three. The role of the reserve within the Active Reserves Network is identified in the Draft Active Reserves Management Plan as follows: "Links Avenue Reserve is a premier park for soccer, and will continue to be maintained with this focus." Small-scale upgrades to the facilities on the reserve are proposed, such as the female changing rooms.

There is an area of green space adjacent to the entry points that front Links Avenue. The boundaries of the soccer fields are well planted, and the car park is well screened from the residential area by mature trees.

7.4 What Next?

Using the alternative assessment method has revealed that improvements are required on all of the reserves assessed in this study. These would need to be remedied before Council considers buying more land to meet a perceived level of service benchmark. This is a shortcoming of a quantitative approach. Simply providing open space of a required number of hectares does not ensure that it meets people's recreation and/or leisure needs. If 2.5 hectares of additional open space were purchased in the proposed Bayfair RIN the results obtained from the alternative assessment method reveal that the additional open space would not automatically meet the needs of the population within the area of higher density. The rationale for this is explained in more detail in Chapter Eight.

The community to date has accepted the local provision of reserves, with the facilities that are provided and the level of maintenance that is there at present. In other words the community that currently lives in the Bayfair area is likely to be reflective of the community who will come in to the area as a result of residential intensification. The community most likely have few expectations of the reserves in the area because they meet their recreation and leisure requirements in a number of ways. For instance, some will belong to gyms that they go to as part of a work journey; others will jog and will use the beach, which is essentially very close. This is why a volume measure of reserve needs becomes obsolete as a total measure since the case study has identified a number of existing reserves that are under utilised, poorly maintained and have few features to attract people. First TCC needs to improve the existing reserves to a standard that will meet the needs of the population that exists now. The Draft Active Reserves Management Plan recognises the need for improvements for active reserves to meet the needs of the population, but

similar changes need to occur in the existing passive reserves. Examples include reviewing potential linkages between passive reserves to establish a fitness trail, installing play equipment that caters for older children on some reserves, and upgrading streets to make their berms more attractive to joggers and walkers.

There is a perceived benefit from open spaces in terms of offsetting the built form, as well as providing recreational benefit. If TCC provides incremental improvements to existing reserves, this might improve their functionality and appeal in terms of recreation. On-site amenity will need to be maximised so that the areas of higher density are not solely reliant on public spaces to offset the built form. Residential design guidelines or similar will go some way towards achieving good on-site amenity for higher density developments, particularly in providing visual amenity. The following chapter provides an analysis of results with reference to preceding chapters. It also makes recommendations as to the way forward for TCC or any other local authorities that are contemplating or are using urban growth management such as Smart Growth or any such approach that involves residential intensification in relation to the provision of open space.

8.0 Conclusions and Recommendations

8.1 Conclusions

8.1.1 Introduction

The case study analysis revealed that the existing open spaces within the proposed Bayfair RIN are by and large of poor to medium quality. Those that rated up to and including 50% (Tahara Crescent Reserve and Gloucester Road Reserve) were considered to be in need of significant improvement, though all of the reserves required improvement in at least one category as outlined in Chapter Six. The existing reserves within the proposed Bayfair RIN are in a poor state of development, particularly when compared with the baseline reserves (Memorial Park and Wharepai Domain), which were chosen for comparison because they represent high quality and flexible recreational areas. It is apparent that the sub-standard open space quality is the result of an approach that TCC finds appropriate for the current level of population, using its quantitative approach.

Chapter Four provided a history behind the implementation of quantitative levels of service approach to reserve provision. An article by Mawson in 1930 introduced the concept of 'Radius of Efficiency' and 'Minimum Standards'. The latter is of particular note in this research, as it translated in to what TCC now refers to as 'Levels of Service'. A quantitative minimum standard approach was based on the demographic characteristics and recreational pursuits of the population during the earlier part of the twentieth century. Throughout that century and particularly the 1990s New Zealand society went through quite major social and economic changes, meaning that a quantitative minimum standard approach no longer holds a rational basis other than this is the approach that has always been used. It is unclear whether the existing reserves are less appealing to the community because they are in need of improvement or because they are not needed. In New Zealand there is a mind-

set that society needs and wants open space. It may be time to critically assess the accuracy of this attitude.

An area of higher density requires a particularly high quality of public space to offset the effects of reduced private open space and an increase in the intensity of the built form. Where residential intensification is implemented, the case study has revealed that a reliance on any kind of quantitative approach is not going to achieve a high quality public space when the quantitative approach fails to meet a minimum standard under the current low-density regime. With reference to Chapter One, the Tauranga City Council State of the Environment Report (2000) found that the provision of community services and facilities is not currently meeting the pace of development in expanding greenfields areas such as Bethlehem and Papamoa. This raises the question of whether TCC should commit a large amount of funds to meet a quantitative levels of service standard in the higher density areas when it is unable to keep up with providing basic community facilities in new areas where families are concentrated, that have potentially higher incomes and the ability to use alternative recreation facilities such as gyms?

8.1.2 Medium Density Living: Whom Do We Cater For?

It has been predicted that the population of Tauranga is ageing, in a trend similar to that of New Zealand as a whole. This is the only limited insight TCC has in terms of the nature of population that it is catering for when providing open space within RINs. When TCC implements residential intensification under the larger umbrella of SmartGrowth, it is essentially planning for a population of unknown characteristics. The overall trends for the city provide the only indication of the type of demographic that residential intensification may have to cater for. The quantitative levels of service approach to providing open space makes a number of assumptions about the demographic composition of communities (see Chapter Four); in the twenty-first century the demographic composition of communities in Tauranga is unclear —this is not catered for in a quantitative levels of service approach.

Also, the process of implementing residential intensification will be undertaken over a number of years. The population that is resident in the existing low-density developments is not likely to disappear as soon as relevant district plan changes are operative. Moreover, developer uptake of medium density investment may take some time to establish. This means that open spaces will need to be of good quality and flexible, because potentially TCC will be providing for a community in transition both in terms of demographic composition and the nature of residential living, over quite a number of years. TCC does not yet have design guidelines in place for the proposed RINs, which probably means that a rapid transition is not expected.

Chapter Four raised SPARC's Sport and Physical Activity Survey, which provided a possible physical activity profile in 2021 based on physical activity trends and demographic change. The dominant prediction was of a population that is increasingly sedentary, with a higher prevalence of obesity, Type 2 diabetes, and cardiovascular disease. On the whole SPARC research indicates that one of the most significant issues for New Zealand from a health perspective is ensuring adequate physical activity. SPARC recommends a number of public investment regimes to dissuade these trends, including (but not limited to) direct investment in active leisure facilities and programmes, improved street lighting for foot and cycle paths and an increase in the number of walkways and cycle paths in towns and cities. Footpaths could be widened to allow maximum safety, and lower speed restrictions enforced in areas of higher pedestrian usage. Local authorities cannot realistically contribute to meeting these objectives by simply increasing the physical area of open spaces within communities of higher density, or across cities as a whole. The statistics regarding the physical activities of older adults (Chapter Four) emphasises the importance of streetscape and urban design guidelines as a way of improving and ensuring the 'walkability' of areas with a higher density in the future. Walking and gardening are popular physical activities among older adults, both men and women. Also, the potential contribution of the Bayfair Aquatic Centre to the recreation aspect of open space in the area cannot be underestimated. In regard to gardening as a leisure pursuit, perhaps TCC will have to be more

flexible and allow for community gardens or allotments where people could become involved if they are in a medium density situation.

The indication is that the current quantitative levels of service approach is unlikely to work given current and future predictions about recreation activities, and any approaches to meeting the community's leisure needs in the future will need to accommodate the complicated situation of a long transition to higher density living.

8.1.3 On-Site Amenity Standards

Smart Growth is about taking a strategic rather than ad-hoc approach to accommodating and facilitating development. This includes implementing the different elements of Smart Growth in a holistic way. Similarly, the Ministry for the Environment's Draft Urban Design Protocol identifies that one of the key urban design qualities is about seeing buildings, places and spaces not as isolated elements but as part of the whole town or city.

In terms of the dilemma faced by TCC providing open space within the proposed Bayfair RIN, much can be achieved through appropriate design of the built form in order to maximise open space. Chapter Three has identified examples of existing medium-density developments within Tauranga city that typify poor urban design, compared with those that maximise street appeal and contribution to amenity values. The relationship between quality urban design and quality design of the public realm are two aspects of a potential shift away from quantitative levels of service approaches. The discussion of specific urban design guidelines is outside the scope of this research, however the nature of the Smart Growth approach is that all the different aspects of it are linked. It would be inadequate practice to deal with each element in isolation as this undermines the philosophy that underpins Smart Growth.

8.1.4 Quality of Existing Open Spaces

The audit of existing reserves within the Bayfair RIN found that the current reserve proviso meets the quantitative requirements of the existing population, yet this approach has produced poor quality and relatively inflexible open space that does not seem to be extensively used. The perceived open space deficit of the proposed Bayfair RIN is 2.5 hectares based on current policy and predicted population models. Based on the foregoing assessment, if Council purchased an additional 2.5 hectares of land to vest in public open space, this land will not automatically meet the needs of the population or the goals of Smart Growth, purely because it contributes to a minimum quantitative standard. This again undermines the continued use of a quantitative approach for the future. There would be an overall leisure and amenity gain if the existing open spaces within the Bayfair area were better developed and maintained. TCC has a Best Practice Guide for Neighbourhood Reserves that contains some quality standards; it appears that some of these standards aren't being consistently revisited.

8.1.5 Implementing Smart Growth in Tauranga: Concluding Comments

In relation to some of the large cities in the USA where Smart Growth has been implemented (for instance Portland, Oregon has a population of 538,544), Tauranga is a relatively small city. In addition, TCC knows very little about its population's leisure and recreation habits. For instance leisure may be connected to a work journey, or to membership of a gym. A quantitative level of service approach does not take in to account these types of activities. In many cases walking is a growing recreational activity –as raised in Chapter Four, 61% of men in New Zealand use their active leisure time walking, and the equivalent statistic for New Zealand women is 81%. With these statistics in mind, TCC may capably meet the recreation needs of its population within RINs by making sure that footpaths are well maintained, that there are street trees and that roads connect easily with each other. This might also include establishing walkways between existing reserves. Conversely, the community are generally

capable of establishing their own walking routes; TCC has a role of making sure that such an activity is pleasant and appealing to the people that participate in walking. Existing roads can be used to achieve this.

This research has mentioned the appeal of the beach in terms of recreation for those people living in the Tauranga area. In the past TCC has not included the coast as a contribution to its quantitative levels of service provision for reserves, because of the sensitive ecological values associated with the coast and the different style of management required. However, as mentioned in Chapter One, one of the major features that draw people to Tauranga (and more specifically Mount Maunganui) is the beach. It is easy to access and provides a diverse leisure site for a range of users. This resource can be considered as a logical contribution to the open space resource of those living in both low density and higher density residential areas. The coastal reserve cannot substitute for any perceived deficit of open space within areas where there is a higher density of residential development, however it goes some way towards alleviating the pressure. Other areas faced with a similar problem may have similar features of interest that satisfy the open space needs of the community. An example is the Waikato River walkways in Hamilton. In areas where residential intensification is implemented, the beach as a leisure and amenity resource can be a contribution to the wider open space provision of high quality active and neighbourhood reserves, walkable streets and a high standard of urban design.

Some recommendations on how TCC might achieve these things are provided in the next section.

8.2 Recommendations

8.2.1 Stepping into the Twenty-First Century

In light of the conclusions of this research, the following steps are recommended for TCC in order to progress with providing open space where residential intensification is implemented (specifically in relation to the proposed Bayfair RIN and the results of the case study assessment). These recommendations may be applicable to some extent to other local authorities that are implementing Smart Growth while attempting to rationalise existing processes for providing reserves and open space.

Many territorial authorities in New Zealand are still using a model of reserve requirements that was developed around the 1930s. This raises the question of whether it is still valid to be using in 2005, particularly when councils such as TCC consider it accepted to the point that no one is really sure where the rationale for it originates. It may now be time to reduce the focus on this solely quantitative approach now that its rational base has been lost. This may be something that any territorial authority relying on a quantitative approach may need to review with the goal of obtaining efficiencies in the provision of public assets to maintain consistency with the Local Government Act 2002's emphasis on sustainable development.

Extensive information about the needs of a community is required to make rational judgements about service provision. Analyses that attempt to quantify neighbourhood quality of life are limited (Talen, 2003) and do not provide detailed models of implementation. The provision of reserves and open spaces is only one aspect of neighbourhood quality of life. There are practical difficulties related to data quality and acquisition, and more philosophically, there may be objection to a top-down, technicist appraisal of neighbourhood quality. These statements emphasise the importance of departing from a solely quantitative approach to the provision of reserves and open spaces, because quality of life is difficult to quantify due to the range of variables involved. If Smart Growth is to be successfully implemented then any local authority using

the approach will have to commit to gathering, analysing and using more information, than they do at present.

8.2.2 The Way Forward for Tauranga City Council

More specifically, the following recommendations are made to TCC in relation to the provision of reserves and open spaces where residential intensification is implemented:

An audit of open spaces within the proposed RIN and public consultation needs to be undertaken before any attempt is made by TCC to purchase additional land for reserves. This recommendation is made regardless of whether residential intensification goes ahead in the Bayfair area.

Notwithstanding this, the existing reserves should be improved before residential intensification is implemented, in order to cater for the transition period from low to medium density development. With reference to the Best Practice Guide for Neighbourhood Reserves, as a minimum requirement the passive reserves need to be reassessed against these guidelines (see Appendix Four). In contrast to other, lower density areas of the city, TCC may need to commit to a different open space standard, one that is less reliant on quantitative levels of service. More subjective/qualitative standards need to be set, that are unique to the area they service. Any investment in existing reserves can be made through the Long Term Council Community Plan (LTCCP) or a passive reserve/walkway management plan. Improvements have been proposed for the active reserves within the proposed Bayfair RIN under the Draft Active Reserve Management Plan. The figure 31 provides some guidance for categorising reserves within RINs in terms of what policy decisions need to be made to improve them (where relevant).

Figure 31: Policy Decision-Making for Existing Reserves

Commission for Architecture and the Built Environment, 2004
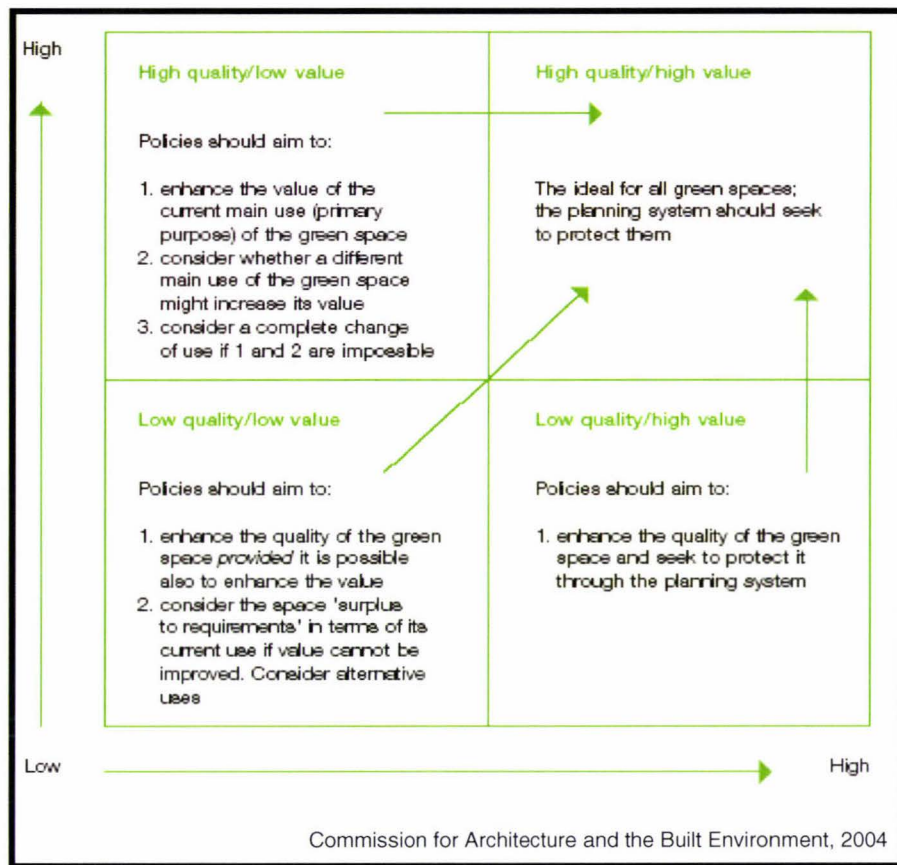
Providing for open space in the future within RINs such as Bayfair may mean incorporating a strategy for open space within a wider neighbourhood plan. A neighbourhood plan is likely to set expenditure priorities linked to the LTCCP, so this approach would be suitable in terms of setting priorities for expenditure on open space. It would be important at the outset to upgrade the quality of what is there and make a long-term commitment to maintaining the reserves. Also, a Neighbourhood Plan could include principles for urban design character within its areas of higher density development. Design guidelines coupled with improvements in street amenity and linkages within reserves are more likely to meet the needs of population than the current approach. In addition, given the increasing value of land in the western Bay of Plenty sub-region, TCC may be able to achieve efficiencies in process and land use by using existing road reserves and/or public facilities. A Neighbourhood Plan that combined elements such as urban design guideline principles and open space strategy would be consistent with the holistic

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philosophy that underpins Smart Growth. A holistic approach would also include the coastline and its contribution to recreation opportunities. Any policy decisions that do not include the beach cannot be sustained in any rational model.

Some general concluding comments are relevant at this point. The outcome of this research is reliant to some extent on local authorities' expectations of how residential intensification will develop. It is noted that the alternative assessment method and audit form is just one approach for determining the quality of existing open space. If TCC did embark on applying an alternative to the quantitative levels of service approach, the methodology may need to be refined to be area-specific, formalised and applied in conjunction with public consultation. Finally, it is unclear whether it is logical to provide such a wide range of services in each RIN given that there is little information on people's commuting and movement patterns in a relatively small city. There is an absence of evidence of the use of Smart Growth overseas in a city of similar size. This may mean that New Zealand will have to create an adapted model of Smart Growth that is better aligned to New Zealand circumstances, which is well illustrated by the issues raised in open space provision.

APPENDICES

Appendix One

Tauranga District Planning Maps E2, SO2 & SO3

Bay of Plenty

C.M.A

Mount Maunganui

Mauao

CONSV

CONSV

CB

CB

RES H

RES H

RES H

RES H

RES H

CONSV

RES H

RES H

Pilot Bay

RES H

Pilot Wharf

Stony Point

Tauranga Harbour

C.M.A

Salisbury Wharf

100   0   100   200   300   400   500 Metres

Tauranga District Plan - Planning Map

E1	
E2	F2
	S02
	S03

E2

Tauranga District Plan - Planning Map

S02

Bay of Plenty

C.M.A

CONSV

Coastal Hazard Erosion Policy Area

MARINE PARADE

RES H

RES H

RES H

RES A

TE NGAIO ROAD

BANKS AVENUE

RES A

RES A

NGARATA AVENU

RES A

REC A

RITA STREET

REC A

RES H

MAY STREET

RES H

RES H

CB

SL

SHADE ANN LANE

CB

CB

MAUNGANUI ROAD

CB

CB

CB

RES H

CB

VICTORIA ROAD

COMMERCE LANE

SL

PRINCE AVENUE

RES H

RES H

CONSV

Mount Drury Reserve

PACIFIC AVENUE

REC A

RES H

REC A

GRACE AVENUE

RES H

RES H

THE M

250 Metres

133

Tauranga District Plan - Planning Map

S03

Appendix Two

Audit Form Example

Open Space Audit Form

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	
	2. Are entrances welcoming?	
	3. Does the infrastructure cater for the access requirements of the disabled?	
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	
	TOTAL	
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.*	
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*	
	4. Is the space's structure understandable with a clear focus and orientating features?	
	TOTAL	

Facilities	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	
	2. Are the facilities appropriate to the space's size and location?	
	3. Are the buildings well designed and located?	
	4. Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.*	
	TOTAL	
Maintenance	1. Is the space clean and free from litter and dog fouling?	
	2. Are the fabric, furniture and buildings well maintained?	
	3. Is the planting well maintained?	
	4. Are the grass areas well maintained?	
	TOTAL	
Management	1. Is the level of management appropriate to the size and nature of the space?	
	2. Is there information on how to contact management services?	
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	
	4. Is there evidence of community involvement? *For example tree planting, murals etc.*	
	TOTAL	

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	
	TOTAL	
Health	1. Is there an appropriate level of sports/exercise facilities? **Recreation A**: *Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* **Recreation B**: *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	
	TOTAL	

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.* *Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	
	TOTAL	
	OVERALL TOTAL	__/__

Comments

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Tauranga District Planning Maps G5, H6 & H7
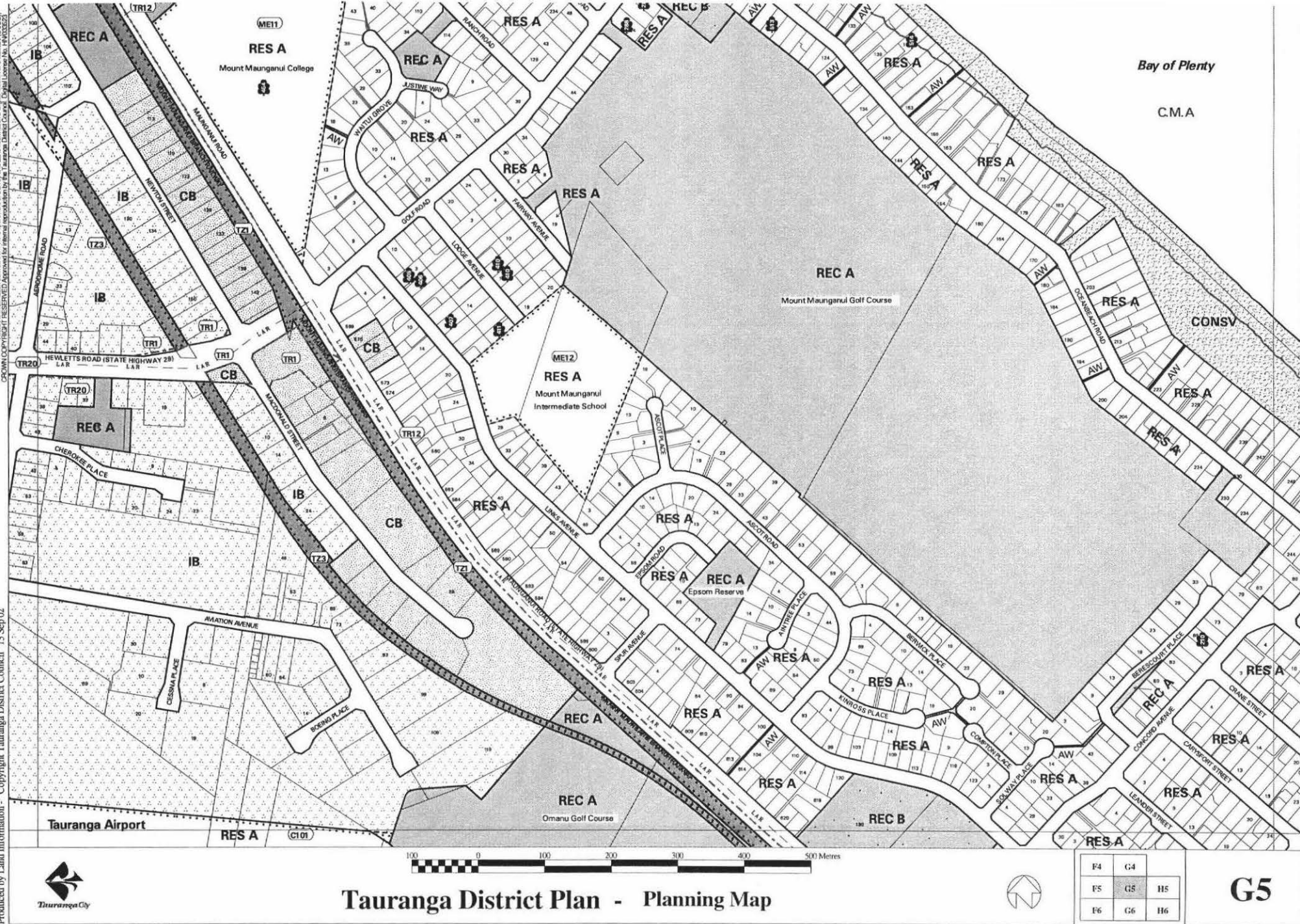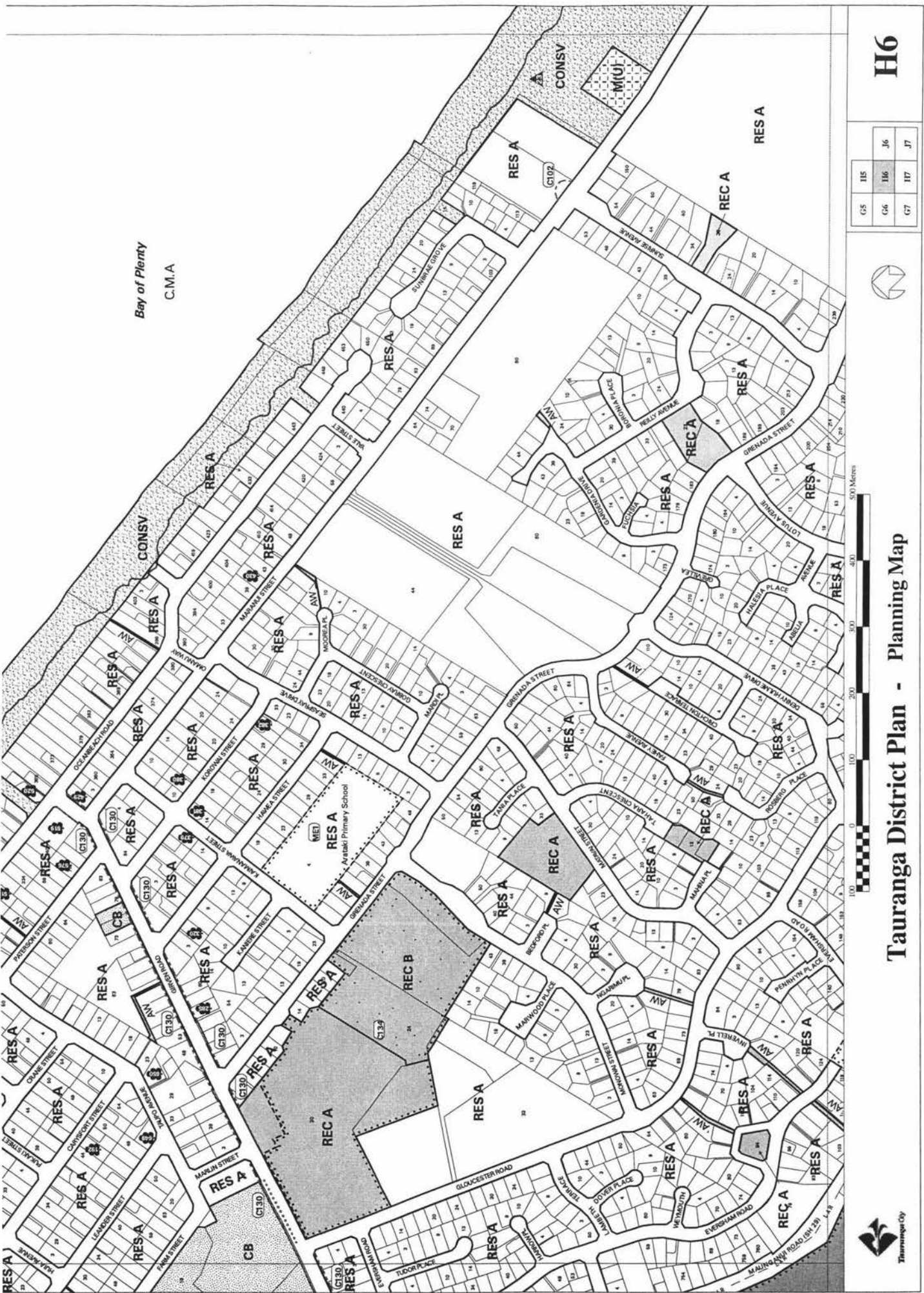
Bay of Plenty

C.M.A

Tauranga District Plan - **Planning Map**

F4	G4	
F5	G5	H5
F6	G6	H6

G5

H6

Tauranga District Plan – Planning Map

Bay of Plenty

C.M.A

G5		I15	J6
G6		I16	J7
G7		I17	

500 Metres

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Tauranga District Plan - Planning Map

H7

G6	I16	J6
G7	I17	J7
	I18	J8

R02

Tauranga City

Appendix Three

Completed Audit Forms — Pilot Assessments

TOTAL: 70/105.

Open Space Audit Form —Pilot Assessment 20.10.04
Berescourt Reserve

Category	Criteria	Score 1-5	
Access	1. Are entrances well located and accessible?	4	
	2. Are entrances welcoming?	5	15/20
	3. Does the infrastructure meet the requirements of the Disability Discrimination Act? NZ example?	2	
	4. Does signage communicate effectively?	4	
Landscape Quality	5. Is the space a rich and stimulating environment?	2	
	6. Is there a variety of scales and space?	4	14/20
	7. Are the space's boundaries attractive?	4	
	8. Is the space's structure understandable with a clear focus and orientating features?	4	
Facilities	9. Is the furniture well designed and located?	N/A	
	10. Are the facilities appropriate to the space's size and location?	4	8/10
	11. Are the buildings well designed and located?	N/A	
	12. Are there special features that give the space local distinctiveness?	4	GOLF course
Maintenance	13. Is the space clean and free from litter and dog fouling?	4	
	14. Are the fabric, furniture and buildings well maintained?	N/A	9/15
	15. Is the planting well maintained?	3	
	16. Are the grass areas well maintained?	2	
Management	17. Is the level of management appropriate to the size and nature of the space?	3	
	18. Is there information on how to contact management services?	2	8/15
	19. Is there information on events and activities?	N/A	
	20. Is there evidence of community involvement?	N/A	

Rebecca Eng 99038446

	21. What is the sense of personal security in the space?	3	
Security and Safety	22. What are the levels of vandalism?	4	
	23. Is there evidence of anti-social behaviour?	4	10/15
	24. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic?	2	
	25. Are nature conservation objectives communicated effectively?		—repeated
Natural Heritage N|A	26. Is there evidence of sustainable management practices?		
	27. Is there evidence of cultural activities such as art or theatre?		
	28. Is there interpretation of elements in the space?		
Cultural Heritage N|A	29. Is the historic landscape structure well conserved?		
	30. Are historic buildings and features appropriately conserved?		
	31. Is there evidence of cultural activities such as art or theatre?		
Education	32. Is there interpretation of elements in the space?		
	33. Are educational activities carried out (e.g. by schools or rangers?)	N/A	0/0
Health	34. Is there an appropriate level of sports/exercise facilities?	3	3/5
Responses to People	35. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, families?	3	3/5 Elderly

Comments

Golf course

Path = orientation

more elaborate comments can

be made on actual assessment.

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77/125

-Rugby Club off-season.

Open Space Audit Form —Pilot Assessment

20.10.04

Grenada Park 'Rec B'

Category	Criteria	Score 1-5	
Access	1. Are entrances well located and accessible?	4	
	2. Are entrances welcoming?	3	12/20
	3. Does the infrastructure meet the requirements of the Disability Discrimination Act? NZ example?	1	
	4. Does signage communicate effectively?	4	
Landscape Quality	5. Is the space a rich and stimulating environment?	3	
	6. Is there a variety of scales and space?	3	
	7. Are the space's boundaries attractive?	4	14/20
	8. Is the space's structure understandable with a clear focus and orientating features?	4	
Facilities	9. Is the furniture well designed and located?	N/A	
	10. Are the facilities appropriate to the space's size and location?	4	10/15
	11. Are the buildings well designed and located?	3	
	12. Are there special features that give the space local distinctiveness?	3	
Maintenance	13. Is the space clean and free from litter and dog fouling?	2	
	14. Are the fabric, furniture and buildings well maintained?	3	13/20
	15. Is the planting well maintained?	4	
	16. Are the grass areas well maintained?	4	
Management	17. Is the level of management appropriate to the size and nature of the space?	4	
	18. Is there information on how to contact management services?	3	16/25
	19. Is there information on events and activities?	3	
	20. Is there evidence of community involvement?	3	

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	21. What is the sense of personal security in the space?	3	
Security and Safety	22. What are the levels of vandalism?	2	
	23. Is there evidence of anti-social behaviour?	2	6/15
	24. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic?	2	
	25. Are nature conservation objectives communicated effectively?	—	
Natural Heritage	26. Is there evidence of sustainable management practices?		
	27. Is there evidence of cultural activities such as art or theatre?		
	28. Is there interpretation of elements in the space?		
Cultural Heritage	29. Is the historic landscape structure well conserved?	N/A	
	30. Are historic buildings and features appropriately conserved?		
	31. Is there evidence of cultural activities such as art or theatre?		
Education	32. Is there interpretation of elements in the space?		
	33. Are educational activities carried out (e.g. by schools or rangers?)	N/A 3?	
Health	34. Is there an appropriate level of sports/exercise facilities?	3	3/5
Responses to People	35. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, families?	3	3/5

Comments

Elderly walking dogs
off peak.   - Natural heritage/
cultural heritage sections -edu)
not really relevant.

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Revised and Completed Audit Forms

Open Space Audit Form

-Berescourt Reserve
'Rec A' 19.11.04 10.30am

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	4
	2. Are entrances welcoming?	5
	3. Does the infrastructure cater for the access requirements of the disabled?	2
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	4
	TOTAL	15/20
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.*	2
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	4
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*	4
	4. Is the space's structure understandable with a clear focus and orientating features?	4
	TOTAL	14/20

Facilities	1. Is the furniture well designed and located? For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?	N|A
	2. Are the facilities appropriate to the space's size and location?	4
	3. Are the buildings well designed and located?	N|A
	4. Are there special features that give the space local distinctiveness? For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park. —Golf course	4
	TOTAL	8/10
Maintenance	1. Is the space clean and free from litter and dog fouling?	4
	2. Are the fabric, furniture and buildings well maintained?	N/A
	3. Is the planting well maintained?	3
	4. Are the grass areas well maintained?	2
	TOTAL	9|15
Management	1. Is the level of management appropriate to the size and nature of the space?	3
	2. Is there information on how to contact management services?	2
	3. Is there information on events and activities? This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.	n|A
	4. Is there evidence of community involvement? For example tree planting, murals etc.	N|A
	TOTAL	5/10

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	3
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	4
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	4
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	2
	TOTAL	13/20
Health	1. Is there an appropriate level of sports/exercise facilities? **Recreation A**: *Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* **Recreation B**: *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	3
	TOTAL	3/5

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.* —Elderly *Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	3
	TOTAL	3/5
	OVERALL TOTAL	70/110

Comments

Reserve ideal for its function (assumed) as a linkage, btwn Borescourt Pl, Oceanbeach Rd & the beach.

The path provides orientation & purpose, but this absence of other furniture/facilities could limit its use.

Increased amenity values for surrounding properties. Boundaries attractive but plantings need to be better maintained to improve safety/ attractiveness.

Open Space Audit Form Epsom Reserve 'Rec A'
19.11.04

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	3
	2. Are entrances welcoming?	3
	3. Does the infrastructure cater for the access requirements of the disabled?	2
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	3
	TOTAL	11/20
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.*	4
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	4
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*	3
	4. Is the space's structure understandable with a clear focus and orientating features?	3
	TOTAL	14/20

Facilities	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	4
	2. Are the facilities appropriate to the space's size and location?	4
	3. Are the buildings well designed and located?	n|A
	4. Are there special features that give the space local distinctiveness? —Link to Epsom *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.*	3
	TOTAL	11/15
Maintenance	1. Is the space clean and free from litter and dog fouling?	4
	2. Are the fabric, furniture and buildings well maintained?	3
	3. Is the planting well maintained?	3
	4. Are the grass areas well maintained?	4
	TOTAL	14/20
Management	1. Is the level of management appropriate to the size and nature of the space?	4
	2. Is there information on how to contact management services?	4
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	3
	4. Is there evidence of community involvement? *For example tree planting, murals etc.*	N|A
	TOTAL	10/15

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	3
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	2
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	2
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	2
	TOTAL	9/20
Health	1. Is there an appropriate level of sports/exercise facilities? **Recreation A**: *Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* **Recreation B**: *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	N/A
	TOTAL	N/A

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.* —children *Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	4
	TOTAL	4/5
	OVERALL TOTAL	70/110

Comments

Multi-functional space & provides linkage to Links Ave & Epsom Road although there is no path.

Children's play area is well maintained & there is a variety of scales in established trees. Access from Epsom Road is not clear; also overgrown.
poor &

Open Space Audit Form Eversham Rd Reserve

Rec 'A' 19.11.04 9.40am.

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	4
	2. Are entrances welcoming?	4
	3. Does the infrastructure cater for the access requirements of the disabled?	1
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	3
	TOTAL	12/20
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.*	2
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	3
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?* —none	3
	4. Is the space's structure understandable with a clear focus and orientating features?	2
	TOTAL	10/20

Facilities	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	n/A
	2. Are the facilities appropriate to the space's size and location? —Passive	3
	3. Are the buildings well designed and located?	n/A
	4. Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.*	2
	TOTAL	5/10
Maintenance	1. Is the space clean and free from litter and dog fouling?	3
	2. Are the fabric, furniture and buildings well maintained?	1
	3. Is the planting well maintained?	1
	4. Are the grass areas well maintained?	1
	TOTAL	6/20
Management	1. Is the level of management appropriate to the size and nature of the space?	n/A
	2. Is there information on how to contact management services?	2
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	n/A
	4. Is there evidence of community involvement? *For example tree planting, murals etc.*	n/A
	TOTAL	2/5

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	3
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	4
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	4
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	3
	TOTAL	11 | 15
Health	1. Is there an appropriate level of sports/exercise facilities? *Recreation A: Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* *Recreation B: In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	3
	TOTAL	3/5

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.* *Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	3
	TOTAL	3/5
	OVERALL TOTAL	55/100

Comments

This reserve does provide contribution to the amenity values of the area; easily accessible & visible, appropriate size but needs to be better maintained & formal children's facilities provided.

– Features of aquatic centre
should be described.

19.11.04

Open Space Audit Form *Grenada Park 'Rec A' & Aquatic centre . 10.10am*

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	4
	2. Are entrances welcoming?	4
	3. Does the infrastructure cater for the access requirements of the disabled?	1
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	3
	TOTAL	12/2
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.* *– Playing facilities*	3
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	2
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*	2
	4. Is the space's structure understandable with a clear focus and orientating features?	3
	TOTAL	10/20

164

Facilities	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	2
	2. Are the facilities appropriate to the space's size and location?	3
	3. Are the buildings well designed and located?	N/A
	4. Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.*	2
	TOTAL	7/15
Maintenance	1. Is the space clean and free from litter and dog fouling?	2
	2. Are the fabric, furniture and buildings well maintained?	3
	3. Is the planting well maintained?	3
	4. Are the grass areas well maintained?	3 2
	TOTAL	10/20
Management	1. Is the level of management appropriate to the size and nature of the space?	2
	2. Is there information on how to contact management services?	2
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	n/a
	4. Is there evidence of community involvement? *For example tree planting, murals etc.*	n/a
	TOTAL	4/10

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	4
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	4
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	4
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	4
	TOTAL	16/20
Health	1. Is there an appropriate level of sports/exercise facilities? **Recreation A**: *Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* **Recreation B**: *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	3
	TOTAL	3/5

166

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.* *Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	4
	TOTAL	4/5
	OVERALL TOTAL	66 / 115

Comments

Predominant part of 'Rec A' res is now taken up by Aquatic Centre. Cannot clearly be assessed as under construction. No benches.   Located beside bus stop. Functions within the overall space is appropriate, as part of a larger Rec/ Open space facility. The 'Rec A' part does not appear to contribute significantly to green space values; the 'Rec B' contributes indirectly. The Aquatic Centre will reduce green space contrib- but fulfill a wider need for the community.

Open Space Audit Form Pacific Park matavaist 'RecA' 19.11.07 9.05am

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	3
	2. Are entrances welcoming?	3
	3. Does the infrastructure cater for the access requirements of the disabled?	2
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	4
	TOTAL	12/20
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.*	3
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	3
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*	2
	4. Is the space's structure understandable with a clear focus and orientating features?	3
	TOTAL	11/20

Facilities	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	3
	2. Are the facilities appropriate to the space's size and location?	3
	3. Are the buildings well designed and located?	n/A
	4. Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.* —playground	3
	TOTAL	9/15
Maintenance	1. Is the space clean and free from litter and dog fouling?	4
	2. Are the fabric, furniture and buildings well maintained?	4
	3. Is the planting well maintained?	4
	4. Are the grass areas well maintained?	4
	TOTAL	16/20
Management	1. Is the level of management appropriate to the size and nature of the space?	3
	2. Is there information on how to contact management services? —TCC	2
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	n/A
	4. Is there evidence of community involvement? *For example tree planting, murals etc.*	n/A
	TOTAL	5/10

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	3
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	3
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	2
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	5
	TOTAL	13/20
Health	1. Is there an appropriate level of sports/exercise facilities? — For purpose, yes. ***Recreation A:*** *Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* ***Recreation B:*** *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	4
	TOTAL	4/5

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.* —Young people *Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	4
	TOTAL	4 15
	OVERALL TOTAL	76/ 115

Comments

more rich & stimulating c/f Gloucestor Road. Playground, mature trees & park bench. Clear focus as neighbourhood reserve.

Variety of scales & space in mature trees & shrubs.

Access from ~~Monowai street~~ Bedford Pbre adds to access function but not contribution to green space of Bedford. Walkway linkage, however.

Open Space Audit Form Tahewa Crescent 'Rec A'
9.20am 19.11.04

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	3
	2. Are entrances welcoming?	2
	3. Does the infrastructure cater for the access requirements of the disabled? —can't get wheelchair through.	1
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	2
	TOTAL	8/20
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.*	2
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	2
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*	3
	4. Is the space's structure understandable with a clear focus and orientating features?	3
	TOTAL	10/20

Facilities	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	1
	2. Are the facilities appropriate to the space's size and location?	4
	3. Are the buildings well designed and located?	n|A
	4. Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.*	1
	TOTAL	6/15
Maintenance	1. Is the space clean and free from litter and dog fouling?	4
	2. Are the fabric, furniture and buildings well maintained?	3
	3. Is the planting well maintained?	3
	4. Are the grass areas well maintained?	3
	TOTAL	13/20
Management	1. Is the level of management appropriate to the size and nature of the space?	3
	2. Is there information on how to contact management services?	2
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	NA
	4. Is there evidence of community involvement? *For example tree planting, murals etc.* "no golf"	n|A
	TOTAL	

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	2
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	2
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	4
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	1
	TOTAL	9 |15
Health	1. Is there an appropriate level of sports/exercise facilities? **Recreation A**: *Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* **Recreation B**: *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	3
	TOTAL	3/5

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.* — Walk through. *Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	1
	TOTAL	1/5
	OVERALL TOTAL	57/115

Comments

Boundaries more attractive — orientation of buildings towards the park. Trees beside path provide orientation. There is some unattractive boundary fencing — potentially unsafe — 9.30am.

Good access/walkability linkage to other streets i.e. Mahina Pl. 'Rec A' function could be improved. Mahina Pl. access well located & accessible, also welcoming continuation of footpath.

Open Space Audit Form _Oceandowns Reserve_
'Rec B' 8.45am 19.11.04

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	2
	2. Are entrances welcoming?	3
	3. Does the infrastructure cater for the access requirements of the disabled?	2
	4. Does signage communicate effectively? _Is it clear who administers the space? Are symbols provided to communicate across languages?_	2
	TOTAL	9/20
Landscape Quality	1. Is the space a rich and stimulating environment? _This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose._	2
	2. Is there a variety of scales and space? _Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?_	1
	3. Are the space's boundaries attractive? _Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?_	2
	4. Is the space's structure understandable with a clear focus and orientating features?	2
	TOTAL	7/20

Facilities	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	N|A
	2. Are the facilities appropriate to the space's size and location? —no facilities	I
	3. Are the buildings well designed and located?	n|a
	4. Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.*	i
	TOTAL	2/10
Maintenance	1. Is the space clean and free from litter and dog fouling?	5
	2. Are the fabric, furniture and buildings well maintained?	n|a
	3. Is the planting well maintained?	4
	4. Are the grass areas well maintained?	4
	TOTAL	13/15
Management	1. Is the level of management appropriate to the size and nature of the space?	3
	2. Is there information on how to contact management services?	2
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	I
	4. Is there evidence of community involvement? *For example tree planting, murals etc.*	I
	TOTAL	7/20

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	4
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	4
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	4
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	4
	TOTAL	16/20
Health	1. Is there an appropriate level of sports/exercise facilities? —Path across **Recreation A**: *Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* **Recreation B**: *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	2
	TOTAL	2/5

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.* *Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	2
	TOTAL	2/5
	OVERALL TOTAL	58/115

Comments

Could encourage more walking. Two entrances at either end. North end more welcoming than south. Leads to path across reserve. Rich & stimulating? Some trees – no diversity of activities. Matt May serve purpose as passive res. No benches. Orientation of buildings towards the reserve would enhance its value as a passive reserve. Could be too large for the purpose it serves. Increased walkability of surrounding streets would perhaps make this space available for any shortage in active res. No linkage to other reserves or walkways, only to SH2 – designation.

Open Space Audit Form Grenada Park 'Rec B' 9.50am Rugby B club off-season 19.11.04

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	4
	2. Are entrances welcoming?	3
	3. Does the infrastructure cater for the access requirements of the disabled?	1
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	4
	TOTAL	12/20
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.*	3
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	3
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*	4
	4. Is the space's structure understandable with a clear focus and orientating features?	4
	TOTAL	14/20

Facilities	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	n/a
	2. Are the facilities appropriate to the space's size and location?	4
	3. Are the buildings well designed and located?	3
	4. Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.*	3
	TOTAL	10/15
Maintenance	1. Is the space clean and free from litter and dog fouling? ⟶building needs painting	2
	2. Are the fabric, furniture and buildings well maintained?	3
	3. Is the planting well maintained?	4
	4. Are the grass areas well maintained?	4
	TOTAL	13/20
Management	1. Is the level of management appropriate to the size and nature of the space?	4
	2. Is there information on how to contact management services?	3
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	3
	4. Is there evidence of community involvement? *For example tree planting, murals etc.*	3
	TOTAL	13/20

Security and Safety	1. What is the sense of personal security in the space? *Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?*	3
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? *Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?*	2
	3. What are the levels of vandalism? *Low levels of vandalism will receive a high score.*	2
	4. Is there evidence of anti-social behaviour? *This may include evidence of homelessness, and/or undesirable activities occurring in the reserve.*	2
	TOTAL	9/20
Health	1. Is there an appropriate level of sports/exercise facilities? **Recreation A**: *Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?* **Recreation B**: *In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?*	3
	TOTAL	3/5

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families?	
	For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK.	3
	Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.	
	TOTAL	3/5
	OVERALL TOTAL	77/125

Comments

On day I visited, elderly walking their dogs. Probably useful off-peak. Perhaps need to increase diversity of use - is Park @ max capacity during rugby season? Offers community building that needs repainting. Some litter problems - cleared during visit. Good accessibility through to passive part of reserve 'Rec A'. Reasonably good parking. Attractive boundaries with mature trees, particularly northern boundary.

Some graffitti detracts from the attractiveness of the park.

Open Space Audit Form Links Avenue Reserve
'Rec B' 10.40am 19.11.04

Category	Criteria	Score 1-5
Access	1. Are entrances well located and accessible?	4
	2. Are entrances welcoming?	4
	3. Does the infrastructure cater for the access requirements of the disabled?	n/a
	4. Does signage communicate effectively? *Is it clear who administers the space? Are symbols provided to communicate across languages?*	3
	TOTAL	11 ~~13~~ 15
Landscape Quality	1. Is the space a rich and stimulating environment? *This is related to diversity of facilities offered by the space. Is the space an appropriate size for the environment in which it is located and the facilities it offers? For example a smaller space may provide a better function than a large space that has no clear purpose.*	3
	2. Is there a variety of scales and space? *Are there open areas and shaded areas? Is the space divided to increase appeal in terms of the human scale?*	2
	3. Are the space's boundaries attractive? *Is the space bounded by fences and/or trees that reduce its visibility and/or appeal?*	3
	4. Is the space's structure understandable with a clear focus and orientating features?	4
	TOTAL	12/20

Facilities		
	1. Is the furniture well designed and located? *For example, is there a seat beside the playground for parents/caregivers? Are play areas accessible? Are there benches located at intervals along walking paths?*	4
	2. Are the facilities appropriate to the space's size and location?	4
	3. Are the buildings well designed and located?	3
	4. Are there special features that give the space local distinctiveness? *For example there may be particular facilities that the space offers or it may be located in a locally distinctive area, such as Memorial Park.* —site state highway	4
	TOTAL	15/20
Maintenance		
	1. Is the space clean and free from litter and dog fouling?	4
	2. Are the fabric, furniture and buildings well maintained?	3
	3. Is the planting well maintained?	3
	4. Are the grass areas well maintained?	3
	TOTAL	13/20
Management		
	1. Is the level of management appropriate to the size and nature of the space?	3
	2. Is there information on how to contact management services? —TCC	3
	3. Is there information on events and activities? *This is probably most relevant in the Recreation B reserves, and where community buildings exist on the reserves.*	2
	4. Is there evidence of community involvement? *For example tree planting, murals etc.*	3
	TOTAL	11/20

185

Security and Safety	1. What is the sense of personal security in the space? _Related to this is maintenance of the reserve and the general use –also does the reserve appear to be utilised as intended?_	3
	2. To what extent is there self-surveillance from surrounding areas or through pedestrian traffic? _Are most areas of the reserve visible from the road and from footpaths/walkways, if applicable?_	3
	3. What are the levels of vandalism? _Low levels of vandalism will receive a high score._	3
	4. Is there evidence of anti-social behaviour? _This may include evidence of homelessness, and/or undesirable activities occurring in the reserve._	3
	TOTAL	12/20
Health	1. Is there an appropriate level of sports/exercise facilities? **Recreation A**: _Consider in light of the perceived purpose of the reserve. Are there any facilities that encourage physical activity, i.e. paved walkway linkages? Does the space go any way towards assisting in achieving SPARC initiatives, particularly for informal exercise?_ **Recreation B**: _In relation to the catchment area of this reserve, (see Eng, 2002) does it contain a range of sports/exercise facilities? For example, is it designed to accommodate more than one type of field sport?_	4
	TOTAL	4/5

Responses to People	1. Does the space meet the needs of, or encourage use by, elderly and young people, children, people with disabilities, diverse cultures, and families? *For example, does a Recreation A reserve incorporate diverse uses? Memorial Park includes facilities for children, flat areas and walkway linkages for elderly and disabled. In New Zealand diverse culture not as applicable as UK. Does a Recreation B reserve encourage use outside of peak use times? An example might be dog-walkers.*	4
	TOTAL	4|S
	OVERALL TOTAL	82/125

Comments

Green space area fronts links Ave. 50 × 120m (approx). Boundaries well planted. TCC community building/ clubrooms. Carparking is screened by established planting. Lots of cars parked — additional use of building outside soccer season. What about grounds? must be maintained. Soccerbuilding needs planting. Needs to be -

Assessment Results

Alternative Assessment Method: Bayfair Residential Intensification Node

Category	Oceandowns Reserve	Grenada Park (Rec B)	Links Ave Reserve	Berescourt Reserve	Epsom Reserve	Eversham Road	Grenada Park (Rec A)	Pacific Park	Tahara Crescent
Access	45.0%	60.0%	55.0%	75.0%	55.0%	60.0%	60.0%	60.0%	40.0%
Landscape Quality	35.0%	70.0%	60.0%	70.0%	70.0%	50.0%	50.0%	55.0%	50.0%
Facilities	20.0%	66.7%	75.0%	80.0%	73.3%	50.0%	46.7%	60.0%	40.0%
Maintenance	86.7%	65.0%	65.0%	60.0%	70.0%	30.0%	50.0%	80.0%	65.0%
Management	55.0%	64.0%	56.0%	53.3%	66.7%	50.0%	53.3%	66.7%	60.0%
Safety and Security	70.0%	40.0%	60.0%	66.7%	40.0%	73.3%	80.0%	66.7%	46.7%
Health	40.0%	60.0%	80.0%	60.0%	n/a	60.0%	60.0%	80.0%	60.0%
Responses to People	40.0%	60.0%	80.0%	60.0%	80.0%	60.0%	80.0%	80.0%	20.0%
TOTAL	**49.0%**	**60.7%**	**66.4%**	**65.6%**	**65.0%**	**54.2%**	**60.0%**	**68.5%**	**47.7%**

Draft Concept Plans: Oceandowns Reserve, Grenada Park Reserve, and Links Avenue Reserve

KEY

Proposed Specimen Trees

Proposed Walkway

Proposed Playground Area

Strong avenue planting along future road will provide detail and potentially slow traffic.

Low bund along future road frontage provides delineation of space between park and road.

126

25

27

29

33

35

37

39

41

43

785

795

797

799

FRANCEVIC AVENUE

STATE HIGHWAY 2 SOUTH

Potential road boundary

Potential road linkage between Gloucester Road and State Highway 2. Potential to provide pocket carparks along new road frontage.

Open Grassed Space

Playground

LASIANDRA PLACE

2

GLOUCESTER ROAD

130

132

134

20

16

MELIA PLACE

7

12

8

21

6

19

17

POINSETTIA PLACE

Existing mass native plantin

Low native planting over wet area with clear views between open space and walkway.

Large open space for community active recreation.

SCALE: 1:1000 @ A3
DATE: December 2001.
JOB NUMBER: 01409

BOFFA MISKELL

Neighbourhood Reserves Management Plan

OCEANDOWNS RESERVE
PRELIMINARY CONCEPT PLAN

191

Remove carparks and return to grass

St Johns Building

Remove Playground

by signage at Intersection

Open Space

Relocated Skate Ramp

Proposed Pockets of Carparking

Improve and Highlight Park Entry

Aquatic Centre

Proposed Carparking

Proposed Clubrooms/Community Centre

Proposed Playground

Possible Carpark Location

hedge to be removed

300m Athletic Track

Sporting Fields 110m x 68m

Sporting Fields 110m x 68m

Informal, Open Planting of Large Specimen Trees

Proposed Walkway

Open Space

Integrate Garden

Remove Building

Remove Carparking

Formalise Pockets of Carparking

Remove Park Entry

GIRVEN ROAD

GLOUCESTER STREET

GRENADA STREET

Aerial Photography supplied by TDC GIS

192

BOFFA MISKELL
planning · design · ecology

Ground Floor, 141 Cameron Road PO Box 13 373 Tauranga
Tel: 64-07-571-5511 Fax: 64-07-571-3333 Web: www.boffamiskell.co.nz

Tauranga City

Grenada Park
DRAFT LANDSCAPE CONCEPT PLAN

TDC Active Reserves Management Plan
Job No: 03154
Date: 09/08/2004
Scale : 1:1000 (A1) 1:2000 (A3)

u:\Auckland\2003\03154 Active RMP - TDC\CAD Working Files\03154 Grenada Park\conta\n.dgn   © Boffa Miskell Limited 2004

Proposed Building Extension
(Include: Public Toilets and
Community Share Facilities)

Proposed Tree Planting

Lighting •

Clubrooms
Covered Seating

Upgrade Existing Fence/Road
Frontage With Low Form Fence
and Planting

Overflow Carparking

Dog Obedience and
Soccer Training Fields

Improve Public Access/Connection
To Playing Fields

Improve and Highlight Secondary Entrance

Enhance Existing Embankment Area
(Additional Vegetation, Upgrade Fence)

Aerial Photography supplied by TDC GIS

0 5 10 15 20

NORTH

193

Links Avenue Reserve
DRAFT LANDSCAPE CONCEPT PLAN

Tauranga District Council Neighbourhood Reserves Management Plan Fact Sheets
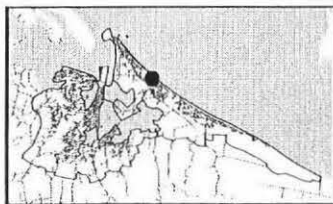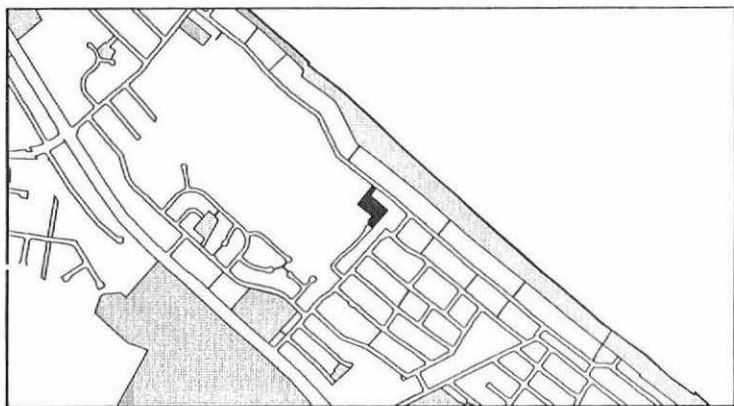
Berescourt Reserve

Site Area = 10060 M2 approx

OCEANBEACH ROAD

CONCORD AVENUE

0   20   40   60   80   100 meters

0   25   50 meters

Photography flown March 1997

160
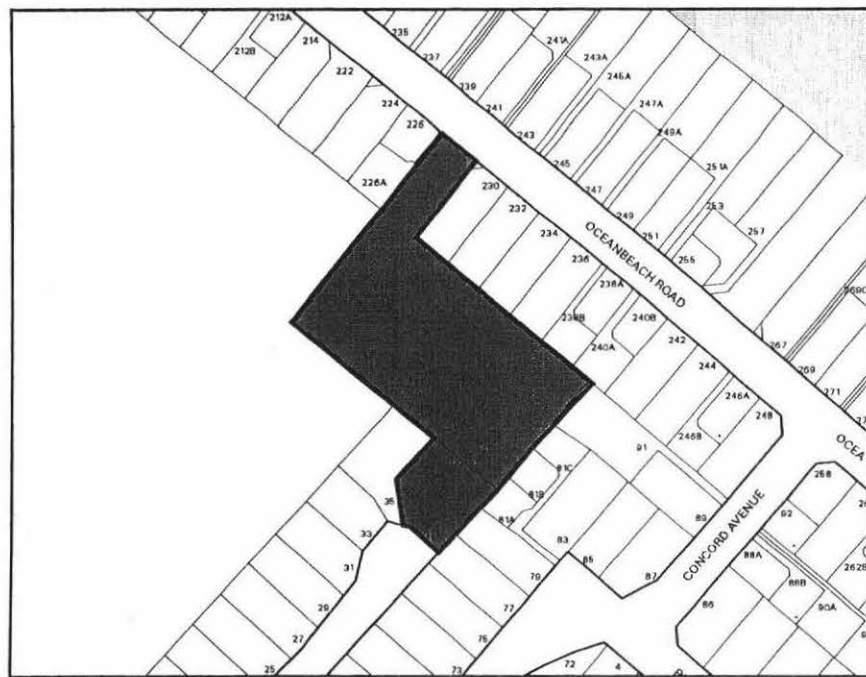
Epsom Reserve

Site Area = 8290 M2 approx
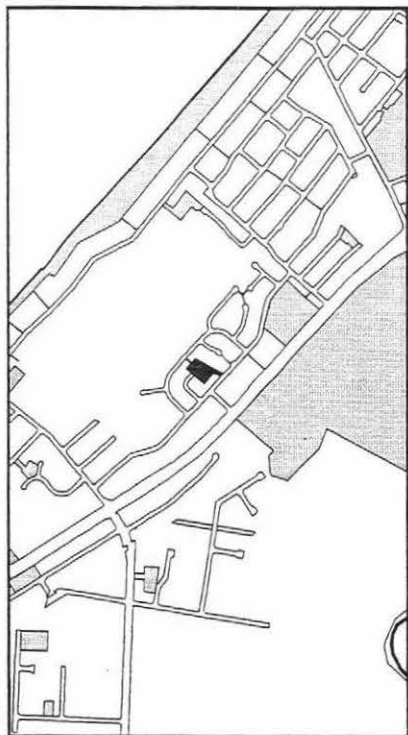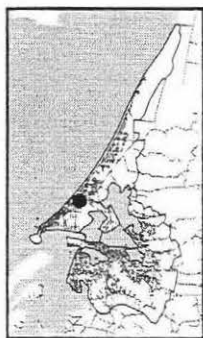
0   25   50 meters

0   20   40   60   80   100 meters
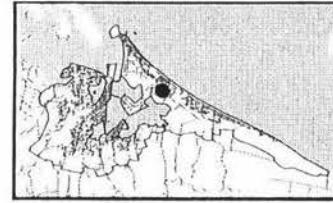
Eversham Road Reserve

Site Area = 1590 M2 approx

WEYMOUTH PLACE

EVERSHAM ROAD

EVERSHAM ROAD

EVERSHAM ROAD

EVERSHAM ROAD

EVERSHAM ROAD

GLOUCESTER ROAD

TER ROAD

INVE RELL PLACE

0 20 40 60 80 100 meters

0   25   50 meters

Photography flown March 1997

173
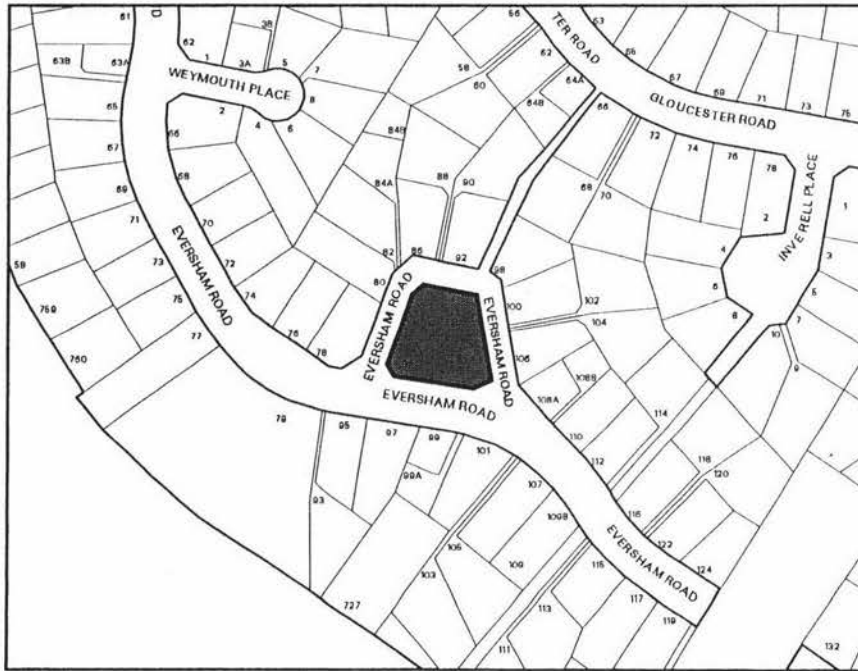
Oceandowns Reserve

Site Area = 35110 M2 approx
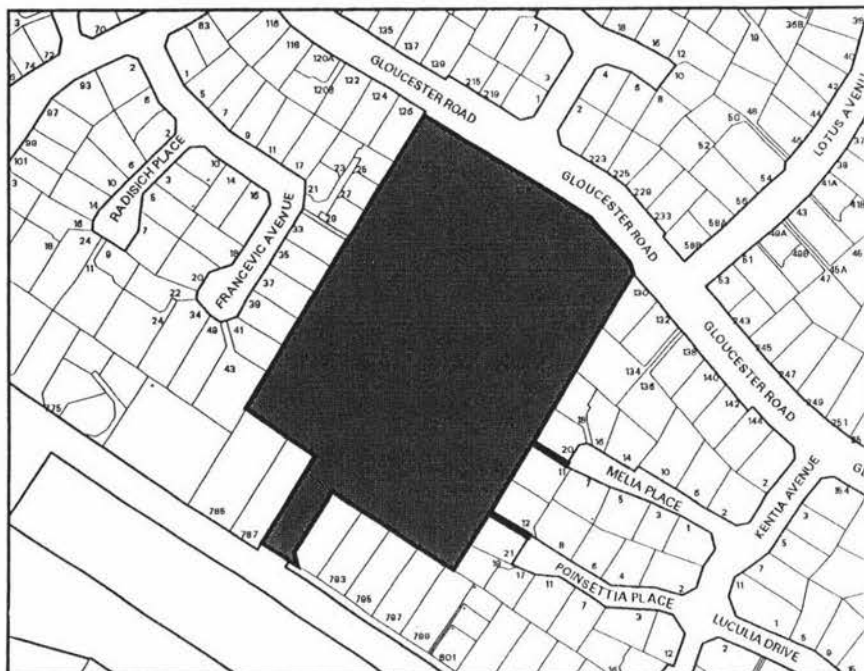
0 20 40 60 80 100 meters

0 25 50 meters

Photography flown March 1997

187
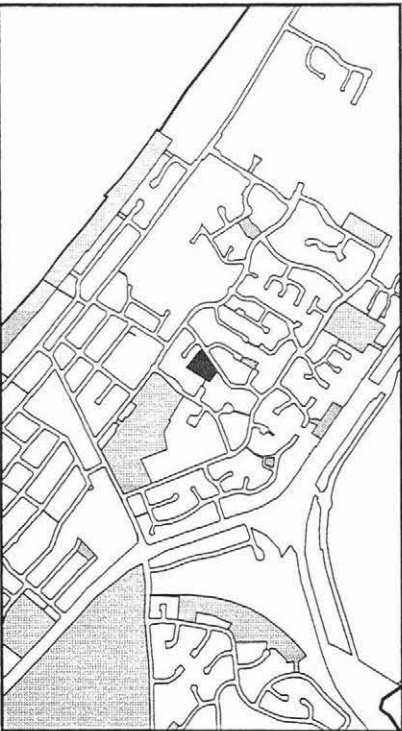
Pacific Park

Site Area = 10730 M2 approx

Photography flown March 1997
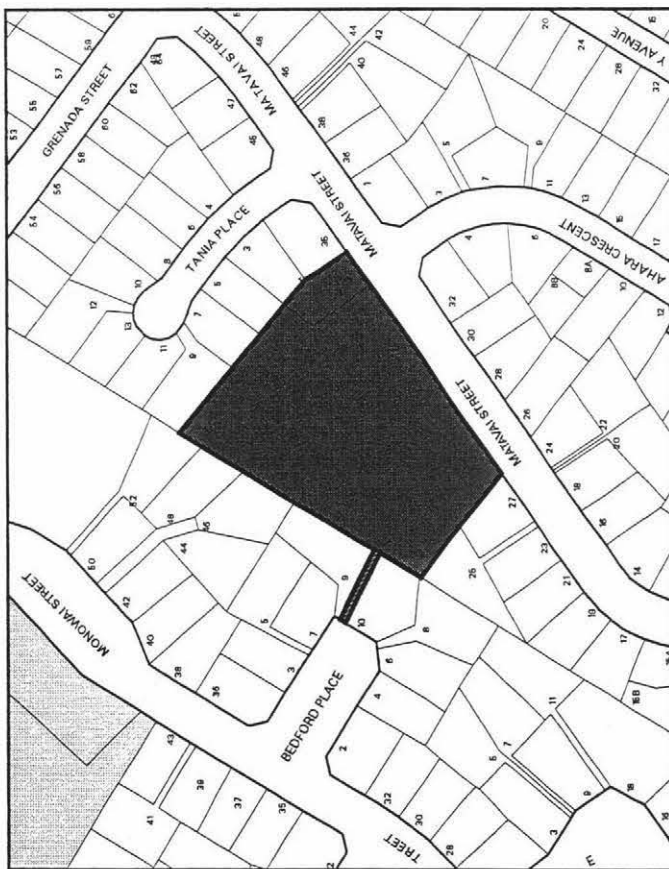
Tahara Reserve

Site Area = 2410 M2 approx

50 meters

25

0
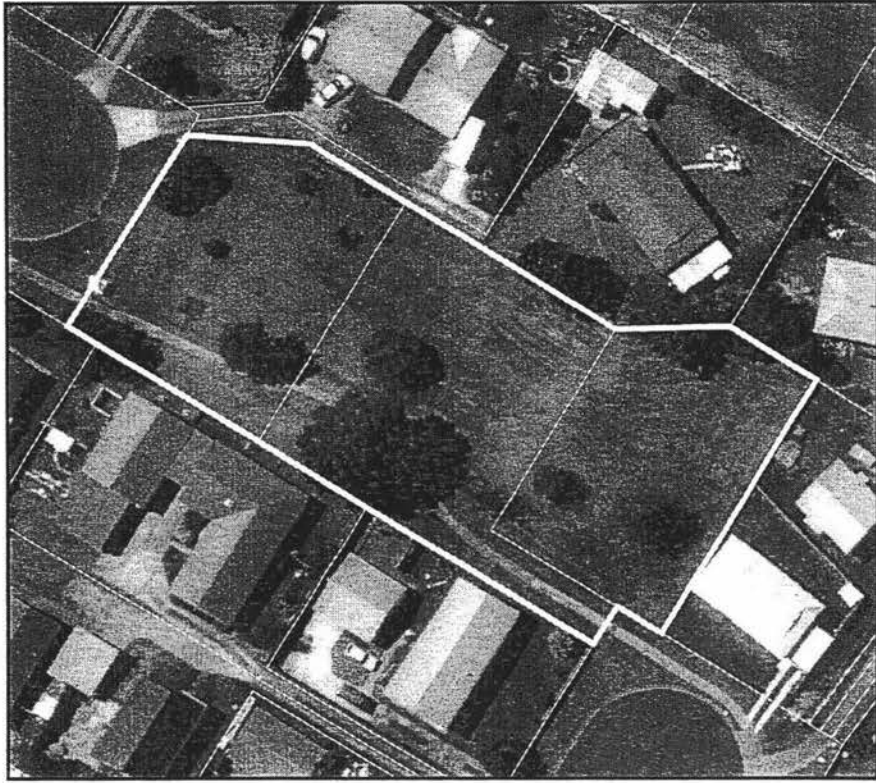
100 meters
0 20 40 60 80

Tauranga District Council Best Practice Guide for Neighbourhood Reserves

Appendix L: Best Practice Guide for Neighbourhood Reserves

Introduction

The purpose of this document is to provide guidance to Council and land developers in relation to the future provision, acquisition and development of neighbourhood reserves.

Neighbourhood reserves are "local" reserves, that is they are provided and developed primarily to serve the local area and it's residential community. They are predominantly used mainly for passive forms of recreation such as play, walking, socialisation and informal sports. Neighbourhood reserves also provide open space amenity in urban built environments. Typically neighbourhood reserves incorporate play equipment, pathways, seating areas and trees, they are sometimes large enough for informal sporting activities.

An overview of all existing neighbourhood reserves within Tauranga District has indicated that the characteristics of these reserves differ quite significantly across the City. For example, some neighbourhood reserves are well positioned as part of the community, are developed in a way that supports use by the local residents, have views that add to the amenity of the reserve and to the urban area as a whole; while other reserves appear to be areas of land that are less desirable for, or more difficult to, develop for residential purposes which have been "left over" as reserve with little consideration to factors such as accessibility, safety and use of the reserve.

The quality and useability of open space is becoming more critical in planning for the amenity of residential neighbourhoods and their communities. Smaller lot sizes in new subdivisions as well as increasing residential density in established residential areas, created through infill housing, mean that public open space reserves are of increasing importance to the amenity and character of our neighbourhoods. Furthermore the considerable cost of land purchased to 'retrofit' open space means that the best possible benefit must arise from such purchase. The need for neighbourhood reserves to respond to the needs of individual communities by providing a variety of recreational opportunities or settings is becoming more recognised and important. At the same time open space should also be planned and designed to allow adaptation to different future needs.

Pelorus
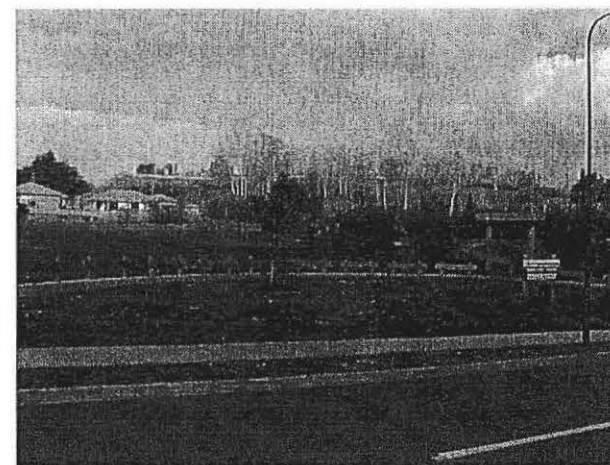
Pelorus Reserve displays attributes associated with a successful reserve.

In order to provide consistency in the provision of neighbourhood reserves and to enable Council to identify suitable reserve land in Urban Growth Areas, it is appropriate that this guideline be used to assist future decision-making with respect to neighbourhood reserve provision, purchase and development. In this respect, it is also appropriate that these guidelines be applied to existing reserves to enable a consistent level of service provision in neighbourhood reserves across the district. It may be appropriate in some established areas, particularly where high levels of infill and/or intensification have occurred to consider purchasing additional land for neighbourhood reserve purposes. This process will be considered through the Neighbourhood Reserves Management Plan, which is currently being undertaken by Council.

Purpose of these guidelines:

To identify best practice and provide consistent guidance in terms of the provision, planning, design, and development of Neighbourhood Reserves in Tauranga District.

What Contributes to a Good Quality Neighbourhood Reserve?

In a nutshell, good planning and design. There are a number of factors that contribute to achieving a good quality neighbourhood reserve; these include location, size, shape, topography, access, aesthetic quality, user facilities (such as pathways, seating and shade) and the type of equipment available on the reserve. Ultimately a good quality reserve is one that has been well sited, planned and designed, in response to these factors and likely community use.

Good planning in greenfield development areas involves Council and the land develoer identifying suitable neighbourhood reserve areas prior to subdivision and negotiating to purchase or have the developer provide the reserve in that location as an integral part of the development. In established residential areas it might involve Council being prepared to pay 'market price' for developed land on which to establish an open space reserve. In certain locations it may even involve Council looking to sell undesirable open space land and using the money from this to purchase desirable reserve land in the same general locality. It also involves good design including careful consideration of the siting of entrances, pathways, play equipment, seats, open space, fencing (where appropriate), signage, specimen trees and other planting.
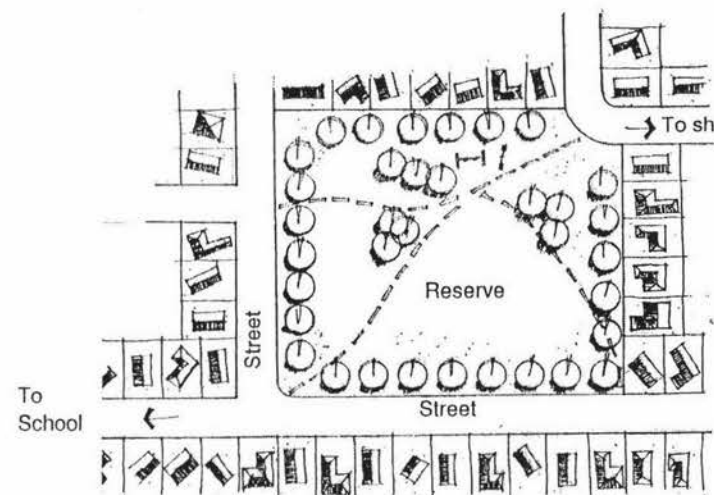
Example of good reserve displaying all success factors
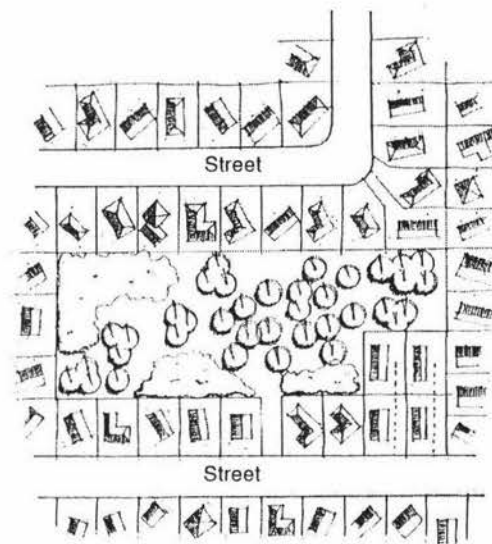
Example of an undesirable reserve displaying no success fac

5

Success factors

The creation of high amenity, robust neighbourhood reserves can be assisted by the application of a series of 'success factors' aimed at achieving the best possible benefit from the developer's and/or Council's investment in the reserve. In the following section each of these success factors is discussed and where desirable illustrated to assist in clearly identifying 'best practice'.

Success Factors

Success factor one: Location, Location, Location.

Neighbourhood reserves should create an open space and recreational asset for the residential community within which they are located. In new subdivisions benefit to the character and quality of the subdivision and its marketability as a desirable residential address can be influenced by the location and design of open space within the subdivision. Neighbourhood reserves should be located to seek maximum contribution to the residential amenity of the locality.

Neighbourhood reserves are intended to provide for the local open space and recreational needs of the immediate residential community, they should therefore be located in easy walking distance for all residents and be well connected to a reasonably direct and safe pedestrian route. Generally a 400 metre distance is recognised as providing an easy five minute walk, neighbourhood reserves and/or other areas of public open space should therefore ideally be located at not much more than 800m² centres.

Neighbourhood reserves that are located in proximity to other community facilities such as schools, shops, community centres and the like will promote complimentary use of these facilities. This also helps to provide a 'sense of place' by providing a focal point for community activities. When assessing locations for neighbourhood reserves the reserve should be located away from school playgrounds, that provide open space and sometimes built playground structures, to avoid duplication of activities within an area.

Neighbourhood reserves should not be sited on land that is encumbered by above ground services (or underground services with visible structures above ground) or infrastructure (eg power pylons, cellphone masts, pump stations etc) that will restrict its present or future amenity, development or use. Underground services often place limitations on the location of planting on the reserve.

Location design cues:

- Locate neighbourhood reserves in prominent locations where they will benefit the open space amenity and landscape character of the urban area as a whole.

- Consider the opportunity to locate neighbourhood reserves in proximity with other community facilities eg close to shops, schools and community buildings.
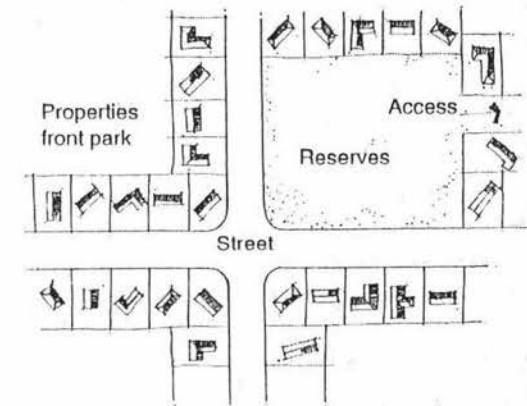
Good Visibility from road and residents
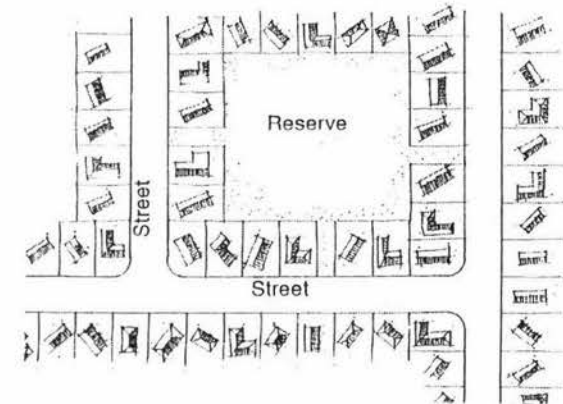
Avoid 'hiding' reserves away, decreases community recognition, visibility and safety

- Avoid locations that are encumbered by utilities or services.

- Ideally space neighbourhood reserves so that a reserve is within 400 metres walk of any residential property.

Success factor two: Visibility

Neighbourhood reserves that are highly visible within the residential area that they service will attract more use, will be safer and will contribute more to the character, quality and amenity of the neighbourhood as a whole. When located in visible locations well designed and well appointed neighbourhood reserves can become a focal point of a community complementing the built character of the locality with open space amenity and recreational facilities.

To an extent the amenity benefit of neighbourhood reserves comes from their 'existence value' that is the value that the community feels just knowing that the reserve exists even if they don't themselves use it regularly. Reserves that are highly visible will form an important part of an individual's mental map of their neighbourhood and contribute to the existence value benefit of the reserve.

Passive surveillance, that is the surveillance that open space gets from people seeing into or overlooking the area, is important to the safety of the area. In particular surveillance from the street network and/or houses which clearly overlook the reserve is important in relation to safety and encouraging desirable behaviour and discouraging undesirable behaviour. Elements which restrict visibility such as solid, high fences and 'shrub' or hedge plantings should be avoided. In addition neighbourhood reserves should be as open to the road as possible with wide street frontages and visibility.

Visibility design cues:

- Ensure neighbourhood reserves are highly visible from, and have a good proportion of direct frontage to, the local street network.
- Secure 'prime' sites for neighbourhood reserves to add value to the residential environment and maximise benefit from the reserve.
- Promote the neighbourhood reserve as a focal point of the residential community
- Maximise 'passive surveillance' of neighbourhood reserves from the street network and neighbouring properties.
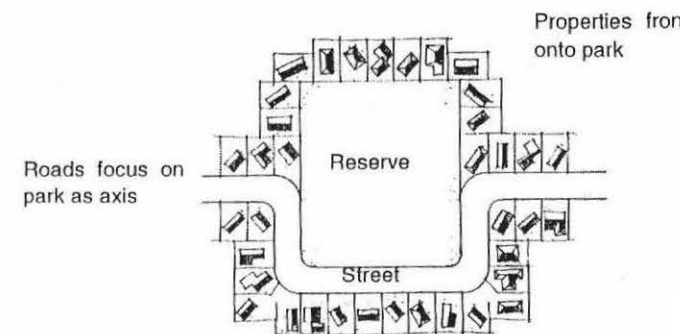- Avoid solid fences or planting which limits visibility in to the reserve and/or passive surveillance.
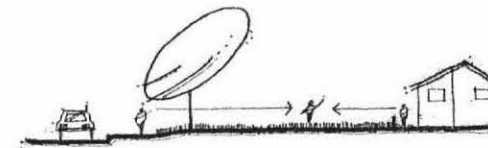
Views into reserve from road and fronting sections increase recognitiion and safety

5
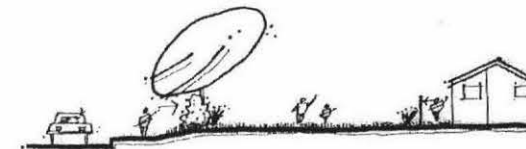
Avoid solid fencing and desnse planting restricting views, decreasing recognisition and safety

Properties fron onto park

Roads focus on park as axis

Reserve

Street

Maximise street frontage to reserve

Success factor three: Size and Shape

Neighbourhood reserves need to be of sufficient size to accommodate their intended physical use and to successfully contribute to the open space amenity of the subdivision. The Tauranga Facilities Survey undertaken in 1995 indicated that residents are generally satisfied with 2000m2 as a minimum size for reserves (average lot sizes in the Residential A zone being 500 to 700m2 minimum lot size 325m2).

The shape of the reserve will influence its layout, it's useability and safety. Generally speaking reserves that are close to being of equal length and width (square or circular) will have maximised opportunity for development and use. Shapes that are overly elongated (ie without sufficient width) will be restricted in their development for informal play and recreational uses. In addition shapes which incorporate areas of limited visibility, such as 'dog legs' or blind corners should be avoided due to their reduced safety characteristics and more limited recreational use.

Size and Shape design cues:

- Ensure neighbourhood reserve have a minimum area: 2000m2
- Select areas which have proportionally close to equal sided shapes for neighbourhood reserves (avoid overly long and skinny areas)
- Avoid selecting areas with 'dog legs' or areas of reduced visibility

Properties front park for passive surveillance

3

Good proportional shape - increases recreational opportunities

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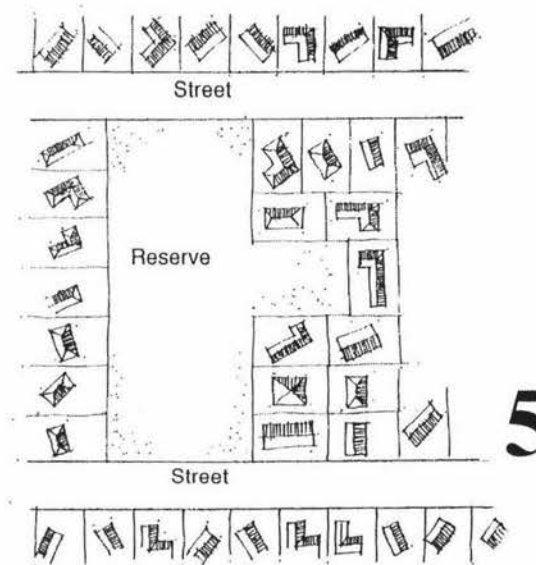
Avoid long skinny areas with 'dog legs'

Success factor four: Accessibility

Neighbourhood reserves are intended for the use of the local community with access to the reserve by foot or bike promoted. Safe access is also promoted to encourage use. In addition to providing a local recreation destination neighbourhood reserves can provide pedestrian shortcuts and improve the connectivity of the local area for residents. The accessibility and safety of neighbourhood reserves as part of a wider pedestrian and open space network within the community is also important to the amenity of the area.

Access will also be encouraged through good clear signage and 'branding', this will also assist in securing the reserve in people's mental map of their community and benefit the 'existence factor' value of the reserve. An open street frontage encourages greater use of the reserve, as people are aware that the reserve is there and it feels more welcoming.

Accessibility design cues:

- Provide good safe pedestrian and cycle access to neighbourhood reserves from all directions. Refer Rule 19.3.1.9(c) in the District Plan.

- Locate neighbourhood (or other) reserves so that they are within a 400 metre (5 minute) walk of every household.

- Consider the pedestrian connectivity (i.e. linkage and shortcut) benefits of neighbourhood reserves and provide access to and through the reserve to benefit connectivity within the community.

- Ensure neighbourhood reserves are accessible for all potential users including children, the elderly and those with disabilities.
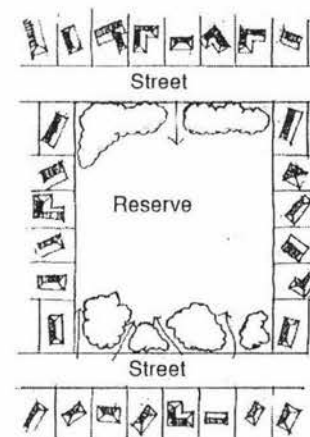
Argylle Street

Pelorous

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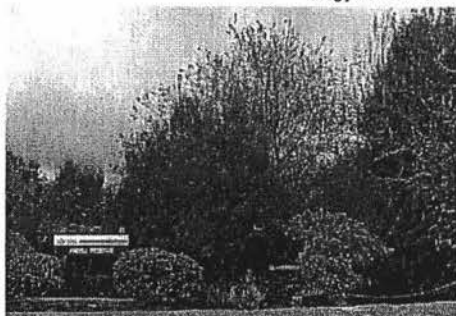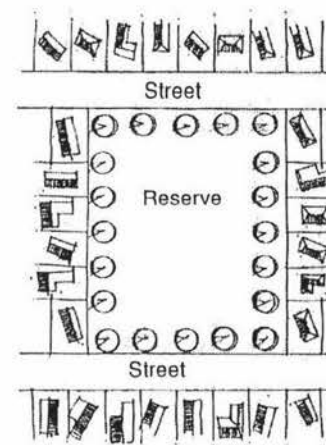
Provide open access with open views for safe access

Avoid dense vegetation and narrow access ways that decrease safety and discourages people from using the reserves, as it appears to be 'hidden'

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Success factor five: Topography

Neighbourhood reserves are intended to provide opportunities for informal recreation particularly for young children, for this reason areas of flat land are desirable at least for a good proportion of the reserve. Topography can also reduce visibility due to areas being 'down' out of the public view or elevated above the general line of sight, topography of this nature should be avoided with visibility into the reserve maximised. In some cases it may be appropriate to retain the natural topography of the land to provide a good topographic relationship between the reserve and the surrounding landform.

Topography design cues:

- Avoid areas of difficult or predominantly sloping topography.

- Incorporate areas of flat land for children's play, eg. Ball games.

- Avoid land that has reduced visibility due to topography.

- Promote clear visibility in the reserve through good topographic relationship between the reserve and the street network/ neighbouring properties.
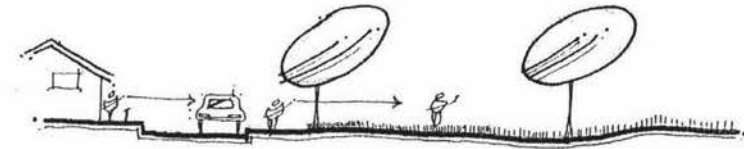
Flat areas provide for a wider range of recreational uses and encourage passive surveillance.

Sloping topography restricts passive

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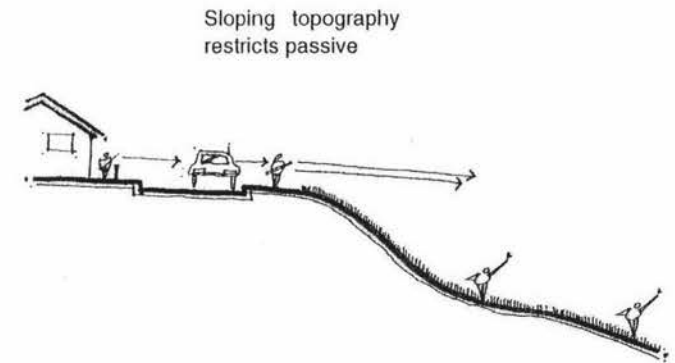
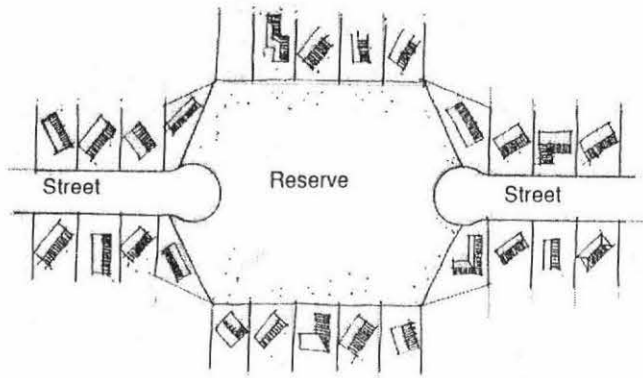*Avoid sloping togography with reduced visibility and limited areas for children's play*

Success factor six: Linkages

If properly planned neighbourhood reserves have the potential to contribute in a co-ordinated way toward the creation of an open space 'green network' within and beyond the local the community. Streets with good, safe pedestrian amenity as well as walkways, and the open space network of reserves, school and the like can combine to improve pedestrian connections and amenity for the community.
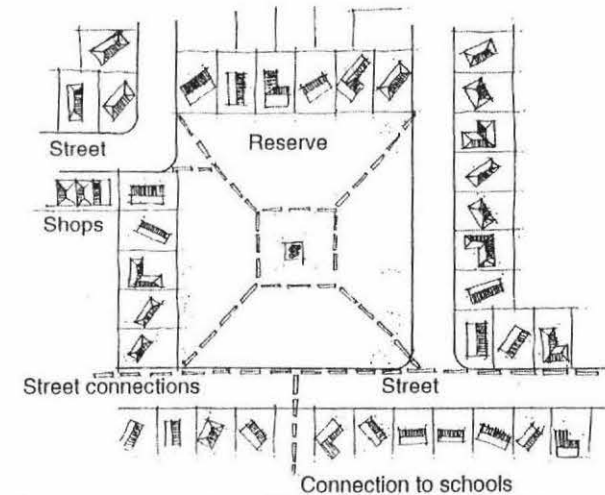
The linkage potential of neighbourhood reserves should be considered in selecting the location, layout (ie what are the pedestrian desire lines connecting across the reserve) and street frontages of neighbourhood reserves.

Linkage design cues:

- Seek to provide good safe pedestrian linkages and shortcuts through neighbourhood reserves.

- Connect destinations for pedestrians eg school to shops or library across neighbourhood reserves.

- Use neighbourhood reserve as one component of a wider open space and walkway network.

Increase reserve recognition and use through safe connections to other facilities

Reserves can also provide wide linkages between streets
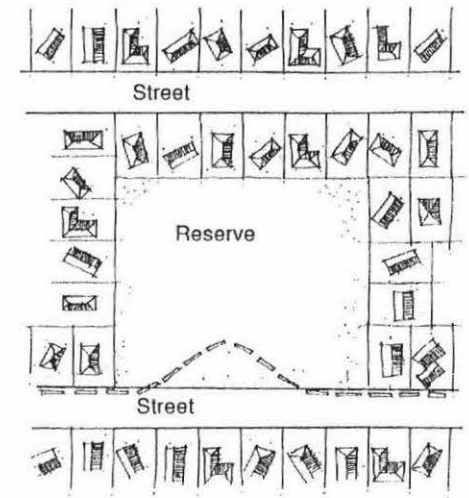
Avoid reserves with no connections or connections to minor streets

Success factor seven: Health and safety

Public reserves, including neighbourhood reserves, need to be safe places for people to use, visit and reside near to. In particular safety is a key feature in the use of community facilities such as children's play grounds. Safety includes both physical safety (ie: safety from physical harm) and social or personal safety (ie: safety from harm caused by other people), such as intimidation or antisocial behaviour. Good design can assist in creating safe public open space, in particular surveillance and visibility are important to the creation of safe reserve environments.

Safety is also an issue for neighbours that share a direct joint boundary with reserve areas. Where these boundaries are hidden away there can be concerns about antisocial behaviour, the access of people from the reserve into the private residential property and the potential for burglaries to be perpetrated using the reserve for access. Again good design and surveillance assist in negating these concerns and in maximising the amenity benefit of the reserve for its immediate neighbours.

Other health issues that require consideration in the design of reserves include provision of shade, accessibility to water and relationship between vehicle and pedestrian areas.

There are standards and performance codes that govern the physical construction of structures for the safety of reserve and play equipment users.

Health and safety design cues:

- Promote positive surveillance between residential properties and adjacent reserves.
- Ensure all play equipment is designed and constructed to meet the relevant New Zealand standards and safety codes.
- Ensure that playgrounds are situated so that they are visible from the street, allowing passive surveillance by neighbours and passers-by.
- Provide shade areas in parks so that people can avoid exposure to the sun.
- Avoid tall solid fencing along reserve road boundaries and promote low and/or visually permeable fencing to assist in providing good visibility into the reserve, improve the aesthetic environment and limit the potential for 'hidden' antisocial behaviour.
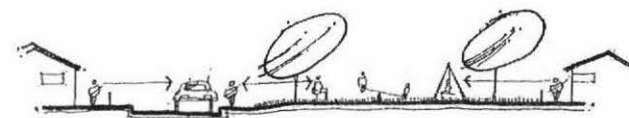
Promote passive surveillance, visible playgrounds and shading with clear stemmed specimen trees

Avoid poor visibility, limited hsading, creating hiding places with tall shrubs and solid fencing

Mountview

Promote shade and positive surveillance

Success factor eight: Aspect

Sunny, open reserves are more attractive than reserves that seldom receive sunlight or that are often dark and/or damp. Land which lies well to the sun should be selected for neighbourhood reserves to ensure that they become attractive areas for community use. The combination of good winter sun and summer shade are desirable conditions for enhancing reserve use.

The orientation in relation to the prevailing wind can also affect the useability and pleasantness of the neighbourhood reserves. Consideration should be given to the selection of sheltered land for reserves or shelter plantings provided to enhance visibility and provide shelter from prevailing winds.

Aspect design cues:

- Good northern aspect desirable.

- Provision of shade by way of clear stemmed specimen trees, particularly over seating areas for playgrounds, picnic areas and the like.

- Avoid overly exposed, windy sites and ensure the creation of sheltered areas is possible.
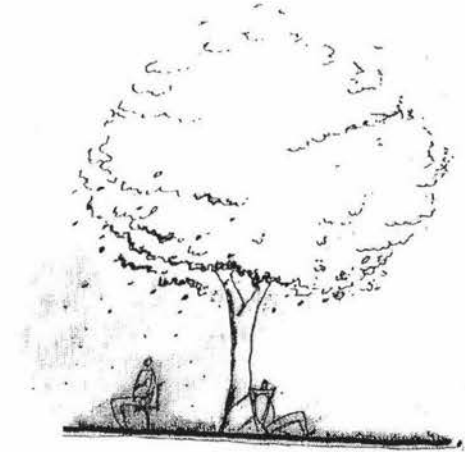
Promote shade with clear stemmed specimen trees

# Success factor nine: Incorporation of site features

Reserves that are sited and designed to incorporate and make use of existing site features such as mature trees, heritage sites, rock outcrops or views will have more character and greater immediate amenity than reserves without such features. The formation of a reserve to incorporate mature trees can also provide for the retention of trees unsuitable within a residential site.

In particular, views out from and within the reserve will add to its amenity and attractiveness, and can increase usage through making the reserve a destination. Views can include harbour or water views, views to landform features such as Mauao, the Kaimai Ranges or the Tauranga Harbour.

The location of reserves to provide for the protection of significant natural or cultural heritage sites/ values will retain these areas for the use and enjoyment of future generations.

Incorporation of features: design cues:

- Locate neighbourhood reserves to protect existing mature trees within residential areas.
- Locate neighbourhood reserves to protect heritage sites (Maori and/or European).
- Locate neighbourhood reserves to protect significant views for public enjoyment.
- Design the reserve to capitalise on retained features and views.
- Locate Neighbourhood Reserves to, if possible, incorporate and protect areas with natural heritage/ecological values, whilst ensuring sufficient area is provided for recreational use (eg playground).

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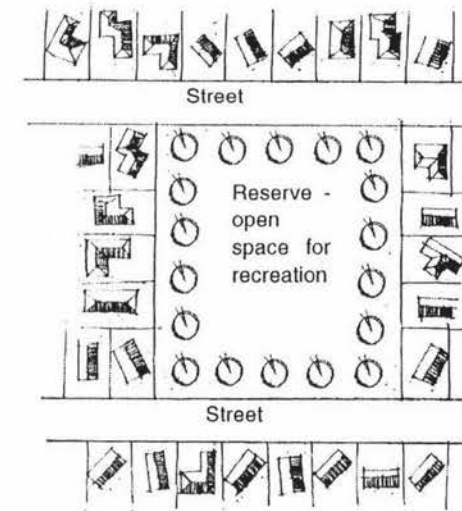
Promote planting that creates open space

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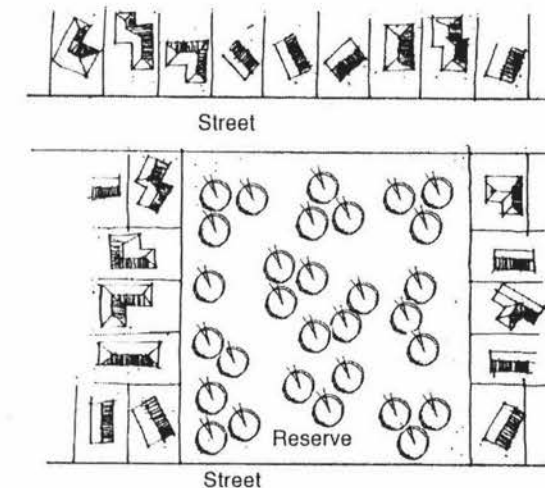
Avoid planting layouts that eliminate open space suitable for recreation, eg playgrounds

Success factor ten: Reserve development/facilities

Reserves that provide a variety of recreation opportunities, such as playgrounds, hard courts, seats, walkways, trees, open space, picnic areas, views etc. will meet a range of user needs within the community and enjoy maximum use.

Facilities within neighbourhood reserves should be sited to facilitate use and useability. Where community buildings are incorporated within neighbourhood reserves these should be located to avoid dominating the reserve or obstructing views into or from it.

Planting within neighbourhood reserves should be carefully selected for species type (eg avoidance of poisonous fruit or leaves etc, thorns, pollen generators or allergenic species), form and habit. Planting should be located to maintain safety and passive surveillance of the reserve assisting safety. Generally shrub plantings should be avoided along the road frontage, with clear stemmed (trunked) specimen trees and groundcover plantings promoted.

Reserve development design cues:

■ Range of facilities and/or recreational opportunities provided.

■ Buildings and other facilities well sited to maintain the open space qualities of the reserve.

■ Planting selected and designed to maintain visibility and avoid 'problem' plants.

Success factor eleven: Public use

Neighbourhood reserves are intended to provide an open space amenity for the local community. Generally they will be too small to provide for club use, however where this does occur the exclusive use (real or apparent) of the reserve by one group should be avoided.

The siting, planning and design of neighbourhood reserves should encourage maximum public use across the entire spectrum of the local residential community.

Public use design cues:

■ Maximum public use encouraged

■ Avoidance of reserve 'capture' by one potential user group.

■ Provide strong entrances to promote the awareness of the reserve, rather than hiding the reserve away.

Strong entrances, open views and ease of access cater for a full range of user groups

Operational Requirements

(as per the requirements outlined in the Code of Practice for Development)

When neighbourhood reserves are set aside and developed as part of a greenfield subdivision it is important to ensure that the resulting reserve on vesting in Council will be developed to a reasonable standard on vesting in Council.

In order to achieve this desirable outcome the following code of practice requirements have been established.

Land vested for reserve purposes shall meet the following general requirements;

- Land is to be free of noxious weeds, tree stumps, and any other specified vegetation.
- Any foundations, derelict fences, water troughs, cattle yards, races, farm tracks are to be removed.
- Building rubble, stock piled soils, builder's material, or roading aggregate should not be stored on the reserve area or where this has occurred all such materials are to be fully removed from the proposed reserve site and the whole area reinstated.
- The reserve land is to be made accessible for tractor mounted mowing equipment and is to have established grass cover or grass that has been mown at least twice previously.
- All boundaries are to be surveyed and pegged.
- Any rights of way are to be formalised through easements at no cost to Council.
- Any areas which are prone to erosion or where stability problems may occur are required to be planted or hydro seeded as specified by the Director of City Services nominated representative
- Existing trees (to be retained) shall be inspected and any required arboricultural maintenance work shall be undertaken by an approved arborist prior to vesting
- No activity shall take place on the reserve land prior to vesting without prior approval of the Director of City Services. Such activity shall include (but is not limited to); the use, storage or operation of earthmoving equipment; removal of topsoil; dumping of soil on materials.

- The owner/developer may enter into an agreement with council to allow development of the reserve land to vest. Such development work is to be in accordance with detailed plans, costings and specifications that have been approved by the Director of City Services.

- Any planting proposed on the reserve shall comply with the Street Landscaping provisions in the Code of Practice.

- The developer may be bonded for all those works not yet completed at time of vesting in Council.

- The reserve is to be appropriately classified under the Reserves Act and vested in Council.

Design Criteria Check List

Success Factor	Check List Criteria	Design Criteria Fulfilled ?	
1. **Location**	■ Proposed reserve site in a visually prominent location within the subdivision.	Yes	No
	■ Reserve provides well for 400metre pedestrian catchment.	Yes	No
	■ Reserve located in association with other public facilities/services (eg shops, schools).	Yes	No
2. **Visibility**	■ Proposed reserve sited with good visibility from public street network.	Yes	No
	■ Adjacent residential lots laid out to provide good passive surveillance.	Yes	No
	■ Planting and fencing promotes visibility into the reserve.	Yes	No
3. **Size & Shape**	■ Reserve provides for a minimum area of 2000m^2	Yes	No
	■ Reserve avoids areas with reduced visibility – 'dog legs'	Yes	No
	■ Reserve is proportionally equal sided in shape.	Yes	No

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Success Factor	Check List Criteria	Design Criteria Fulfilled ?	
4. Accessibility	▪ Reserve provides safe pedestrian and cycle access from all directions	Yes	No
	▪ Reserve is located within an 400m (5 minute) walk of every household	Yes	No
	▪ Reserve is accessible for all potential users including children, the elderly and the disabled	Yes	No
5. Topography	▪ Reserve provides flat areas for children's play	Yes	No
	▪ Reserve avoids areas of difficult, sloping topography	Yes	No
	▪ Reserve avoids land that reduces visibility due to topography	Yes	No
6. Linkages	▪ Reserve provides safe connections and shortcuts to destinations for users.	Yes	No
	▪ Reserve connects to wider open space walkway network	Yes	No

Success Factor	Check List Criteria	Design Criteria Fulfilled ?	
7. **Health & Safety**	■ Reserve avoids tall solid fencing along boundaries and properties that 'back' onto the reserve.	Yes	No
	■ Reserve layout ensures playgrounds are visible from street network and meet relevant NZ standards.	Yes	No
	■ Reserve provides safe areas of shade for users.	Yes	No
8. **Aspect**	■ Reserve orientation ensures sun exposure and minimises exposure to prevailing winds.	Yes	No
	■ Reserve provides for shade by way of clear stemmed specimen trees over some seating and nearby playgrounds	Yes	No
	■ Reserve orientation ensures creation of sheltered areas is possible.	Yes	No
9. **Incorporation of site features**	■ Reserve located to protect existing mature trees and features	Yes	No
	■ Reserve located to protect heritage sites (Maori and/or European)	Yes	No
	■ Reserve located to protect significant views	Yes	No

Success Factor	Check List Criteria	Design Criteria Fulfilled ?	
10. **Reserve development/ facilities**	■ Reserve provides a range of opportunities for facilities and recreational opportunities.	Yes	No
	■ Buildings sited to maintain open space qualities of the reserve	Yes	No
	■ Reserve planting selected to maintain visibility and avoids problem plants.	Yes	No
11. **Public Use**	■ Reserve design encourages maximum public use	Yes	No
	■ Reserve planning and design avoid 'capture' of use by one potential user group	Yes	No
	■ Reserve design ensures no potential users are disadvantaged.	Yes	No

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