Peacocke Structure Plan

Hamilton City Council
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# TABLE OF CONTENTS

## Part A  Introduction

Introduction
- Purpose of the Peacocke Structure Plan
  - A Brief Description of the Peacocke Growth Cell

CityScope and a Vision for the Urban Development of Peacocke
- A Vision for the City
- A Vision for Peacocke
- Urban Design Strategy for Peacocke

## Part B  Background

Structure Plan Process
- Process
- Consultation

Description of the Peacocke Area and Existing Environment
- Background
  - Location, Size and Shape
  - Land Use and Neighbouring Activities
  - Topography and Landscape Issues
  - Existing Vegetation
  - Other Physical Characteristics
- Cultural Heritage
- Ecology
- Transportation
- Infrastructure
- Built Development
- Employment
- Recreation
- City Growth

## Part C  Urban Design Strategy

Urban Design Principles

The Urban Design Response for Peacocke
- Character and Appearance
- Density
- Ease of Movement
- Major Arterial Routes
- Minor Arterial Routes
- Collector Roads
- Walkway/Cycleway
- Urban Design Response to Physical Features
- Walkable Neighbourhoods
Low Impact Urban Design Techniques  
Mix of Land Uses  
Commercial/Community Nodes  
Safety  
Community and Recreation Facilities  
Cultural Heritage

**Part D Implementation Strategy**

Staging and Infrastructure Provision  
Peacocke Stage 1 Landowner Workshops  
District Plan Re-Zoning  
Design Guidance  
Designations  
Development Manual  
Catchment Management Plan  
Development Contributions

**Part E Interim Development**

Existing Regime  
Response to Interim Development Pressures

**Summary**

**Attachments - Plans**

Peacocke Structure Plan 2007  
Staging of Urban Development Within Peacocke  
Transportation Networks Within Peacocke  
Distribution of Commercial and Community Nodes
PART A - INTRODUCTION

Introduction

Purpose of the Peacocke Structure Plan

The purpose of this document is to outline an urban design vision for the future urban development of the Peacocke area and to provide a strategic framework to guide the development process. The Peacocke Structure Plan has been prepared in order to facilitate an integrated approach to achieving the sustainable management of the natural and physical resources of the Peacocke growth cell. This includes:

- Articulation of an urban design strategy for the area;
- Identification of key natural resources and cultural assets within and related to the area;
- Establishing an integrated land use pattern that responds to the characteristics of the area;
- Identification of infrastructure requirements to facilitate urbanisation.

The Peacocke Structure Plan creates a framework to guide development and will be used to inform future changes to the District Plan, as a basis for developing the infrastructure programme, and as a basis to provide supplementary design guidance for particular key areas as the growth cell develops. The structure plan is not intended to act as a blueprint. The ultimate form of development will not look exactly like the structure plan but be guided by the concepts and approach of the structure plan. The structure plan promotes ideas regarding urban design concepts and considerations around urban form, identifies both a collector and arterial road network, considers alternative transport options, identifies parks and reserves, and considers treatment of key physical features such as the gully and riverbank. The plan provides the basis for negotiation of development proposals between Council and developers.

The Peacocke Structure Plan staging patterns reflect present Council infrastructure programmes. These are outlined in the Long Term Council Community Plan 2006-2016 and recovered through development contributions where they are growth related projects.

A Brief Description of the Peacocke Growth Cell

- The entire Peacocke Growth Cell is 740 hectares in area of which approximately 620 hectares is suitable for urban development.
- New residential development absorbs approximately 30-50 hectares of land in Hamilton per annum. On current trends the Peacocke land resource will supply 25-30 years growth.
- Significant infrastructure investment is required to develop the area as an effective urban community.
• The area is currently a mixture of large farms with some ‘lifestyle block’ development, and remains predominantly in rural land use.
• The farming activities in the area have been in place for over a hundred years and consequently there is a strong presence of exotic trees and hedgerows that contribute to the attractive rural landscape that exists.
• The Peacocke area is dominated by two large physical features being the Waikato River and the Mangakotukutuku Gully.
• The landscape is undulating with the southern portion substantially elevated being 65 metres above the level of the Waikato River.
• The majority of remnant or regenerating indigenous vegetation is located within the Waikato River corridor and the Mangakotukutuku Gully.

**CityScope and a Vision for the Urban Development of Peacocke**

**A Vision for the City**

Hamilton City Council wishes to take a stronger and more visionary role in guiding the future development of Hamilton’s built environment to ensure that it better reflects the aspirations of Hamilton’s community.

Council understands that city design is not simply about the look of buildings. It is about integrating our urban form with our natural environment, and the manner in which buildings, streets, spaces, landscape, art, culture, and heritage contribute to making memorable places for people.

Council has determined that future development in Hamilton must align with the city’s aspirations for a sustainable, quality urban environment as articulated in Hamilton’s vision, and reflected in the aspirations of the Community Outcomes Programme which is to achieve:

“*An urban environment with a strong and unique sense of place, where the interaction of people is supported by an urban fabric of places, spaces and buildings that capture a sense of vibrancy, community, and safety at a truly people scale*”.

Successful cities promote diversity and vitality, create a high quality and safe environment, improve opportunities for mobility, strengthen and support local communities, and offer opportunities for investment and facilitate economic prosperity. The Council’s vision for Hamilton describes a place where people will live, work and meet for entertainment and recreation; where there is a wide choice of things to do and of goods to buy; where ideas and information are exchanged, and where neighbourhoods are safer because they are populated by a lively mix of residents who use and ‘own’ their own streets.

The economic future of the city is reliant upon conditions that improve economic prospects by boosting employment, ensure that residents benefit from the creation of new jobs and the retention of existing jobs, and offer a lifestyle and vibrant environment which attracts and retains the best talent available.
Quality development and good design is a fundamental part of this. The New Zealand Urban Design Protocol (Ministry for the Environment, 2005) issues the challenge for towns and cities to strive to lift the quality of urban design throughout New Zealand and change the way we view our urban environments. CityScope is the Council’s urban design strategy and has been developed to provide a design-led approach to the development of the city. Flowing from that document is the vision for the urban development of the Peacocke area.

A Vision for Peacocke

The vision for the Peacocke area is that it will become a high quality urban environment that is based on design excellence, social well-being, and environmental responsibility.

The goal is that the urban development of the Peacocke area respects and responds positively to its surroundings, becomes a series of sustainable mixed use communities based on an urban parkland concept, that has great connectivity with the existing city and sits comfortably with adjacent rural areas.

The urbanisation of the Peacocke area must utilise high quality urban design principles to ensure its form and function are attuned to the context and to create a distinctive urban identity, whilst providing an attractive, safe and well-connected place to live, work and play. The urban development of the Peacocke area must preserve and enhance the significant natural and cultural features of the area and provide an inspiring entrance to the south of the city.

The future urban form should reflect natural features, protect important heritage features, cultural locations, ecological processes, physical characteristics, and promote the well-being of residents.

Urban Design Strategy for Peacocke

The undeveloped ‘greenfield’ nature of the Peacocke area provides a major opportunity for urban design principles to be incorporated into every aspect of the planning and development process to ensure the area will look and function as a high quality urban environment. The urban design strategy for Peacocke is intended to include innovative urban design solutions to ensure that the urbanisation of the Peacocke area is as unique as the landscape and features of the area itself. This urban design strategy is based on the concept of achieving an urban parkland style of development.

Part C of this document identifies twenty-one urban design principles that underpin the development of the Peacocke Structure Plan. These design principles reflect the New Zealand Urban Design Protocol, CityScope, and international best practice.
PART B – BACKGROUND

Structure Plan Process

Process

Various processes have been employed in the preparation of the structure plan. The principal elements include:

- Examination of the existing situation within the Peacocke area, including:
  - Assessment of the existing environmental features;
  - Identifying cultural interests and values;
  - Identifying the range, availability and capacity of infrastructure;
  - Establishing development trends and market demand for additional land for development;
  - Assessing the relationship with the existing city.

- Identification of the planning considerations to be taken into account for city growth and the development of the southern sector of Hamilton, including:
  - The urban design strategy for the Peacocke area;
  - The range and extent of land uses and future zonings required to promote the sustainable management of natural and physical resources whilst enabling/facilitating development and city growth;
  - The staging of infrastructure provision (water supply, wastewater, stormwater, reserves and community infrastructure, and roading) and development associated with the identified zoning pattern;
  - The financial resources needed for infrastructure and service provision;
  - The processes required to support the development programme.

- Engaging and consulting with landowners, the community and other stakeholders, including:
  - Public open days;
  - Questionnaires;
  - Meetings;
  - Workshops.

Consultation

A wide range of consultation and participation techniques have been used to assist production of this structure plan, and the preceding Peacocke Area Scoping Study 2002. Previous consultation exercises have been conducted since the area was incorporated into the city in 1989 to examine options for the future of the area.

A key element of the consultation process has been direct contact and discussions with landowners and members of the public who have an interest in the Peacocke area. Two public open days have been conducted to present draft proposals for public feedback, and to provide a forum where the public can raise issues and discuss alternatives. These have not only helped to inform people of the resource management issues being considered and raise awareness of what a structure plan is, but they have
facilitated public participation in the process through personal contact and the sharing of ideas. Questionnaires have been made available to enable written feedback to be submitted. This has helped to identify and shape the various elements of the structure plan.

Community participation has been actively encouraged throughout the structure plan process. Council’s website, ‘mail-outs’, and newspaper notices have been used to publicise the public open days and raise awareness generally about the process. The evolution of the structure plan after each public open day is testament to the effectiveness of the public participation.

There have been specific discussions with stakeholders to identify and resolve issues of interest. Discussions have taken place with organisations as diverse as the Ministry of Education regarding future education provision, and the Waikato Regional Airport Limited regarding the proximity to the airport and potential reverse sensitivity issues, and opportunities to take advantage of that proximity in a mutually beneficial way. A further example is Transit New Zealand who manage the existing state highway network and is developing the Southern Links project which is a critical element of the development of Peacocke. This contact has helped greatly to understand and resolve issues at the plan formulation stage. As a result it has been possible to evolve the structure plan and make it more responsive to the issues raised.

The regional council (Environment Waikato), and the neighbouring territorial authorities, being Waipa District Council and Waikato District Council, have also been engaged in the plan preparation process. This has enabled the structure plan to take account of the wider environmental and resource management issues facing the region.

Local iwi have participated in the planning process through the involvement of Nga Mana Toopu O Kirikiriroa. A cultural assessment report has been completed discussing the historical associations with the area, detailing significant sites, and providing a different perspective on the Peacocke area. This work has been integrated as part of the structure plan formulation process.

Some of the many perspectives and concerns arising from the public consultation process include:

- Maintaining riparian areas along the riverbank and gullies for general recreational use;
- Concerns over high density development near the river;
- Ability to subdivide below two hectares;
- Development of the cycleway and walkway network as shown;
- Provision of adequate wastewater, water supply & stormwater infrastructure to manage the effects of urban development;
- Provision of a mixed-use area to encourage diversity of development;
- Refining the position of indicative roads shown on the structure plan;
- Maintaining Peacocke as a ‘rural’ environment;
- Addressing current Peacocke traffic problems before allowing further development;
- Developers meeting the costs of subdividing, not general ratepayers;
- Commencing development as soon as possible.
Description of the Peacocke Area and Existing Environment

Background

The Peacocke area was brought into the city in 1989 as one of a number of large growth areas that would, in due course, contribute to accommodating city growth. Together with the Rototuna area in the north-east and Rotokauri in the north-west, Peacocke forms part of the city’s medium to long term development land bank.

Successive studies of the city’s growth options have confirmed the suitability of the area for accommodating comprehensive urban development, albeit recognising the need for major new infrastructure, and the need to avoid an oversupply of land onto the housing market. The studies have generally assumed that the 740 hectare area could accommodate an eventual population of around 20,000 people (around 7,500 dwellings) at urban densities.

A scoping study to guide the preparation of the Peacocke Structure Plan was prepared by Beca Planning Limited in 2002. This study identified the issues, opportunities and constraints affecting future development and also reported on preliminary consultation with local residents through a public open day and questionnaire survey.

Also in 2002 Transit NZ began its study into the need for arterial roading connections into the city from the south. Originally known as the SHANSS project (South Hamilton Arterial Network Strategy Study) the project was later renamed Southern Links and the report released in April 2005. The second phase of this study has commenced to confirm a preferred corridor as a precursor to a notice of requirement to protect that corridor through a designation. This study has a significant bearing on the Peacocke area in terms of unlocking the current access constraints, and linking the area to the city’s arterial road system.

Currently, almost the entire Peacocke area is zoned ‘Future Urban’ in the References Version of the Proposed District Plan (November 2001). The use of structure plans is identified as one of the methods for implementing the Proposed District Plan’s objectives and policies.

Following the preparation of a structure plan for the Rototuna area, rezoning has occurred and development of the north-eastern growth cell is now well underway. Rototuna Stages 3 and 4, which is the remaining portion of the Rototuna growth cell is being rezoned in 2007. The formulation of the Rotokauri Structure Plan and the rezoning of Stage 1 is being progressed through the statutory process.

It is therefore timely to make preparations for bringing forward additional development land within the Peacocke area to ensure continuity of supply and to provide the market with a degree of choice.

Location, Size and Shape

The Peacocke Structure Plan area comprises approximately 740 hectares of rural land on the southern fringe of Hamilton. It lies approximately three kilometres south of the city’s central business district and is broadly oval in shape, extending approximately 4.5 kilometres from north to south and three kilometres east to west. The area is defined
to the south-west and south-east by the city’s administrative boundary with Waipa District along Ohaupo Road, and Peacockes and Gainsford Roads. To the east and north-east Peacockes is defined by the Waikato River, and to the north-west by the Glenview and Fitzroy residential areas of the city. The extent of the growth cell and an aerial photograph of the Peacocke area is shown in Figures 1 and 2.

Figure 1. Peacocke Growth Cell
Figure 2. Aerial photograph of the Peacocke Growth Cell
Land Use and Neighbouring Activities

Land use within the structure plan area is predominantly agricultural, comprising mostly dairying, with some horticultural uses in the Dixon Road area. There is only sparse amounts of built development associated with primarily lifestyle blocks and farming operations based around the existing road network (see Figure 3). There is a scattered pattern of development throughout the area reflecting the relatively large landholdings, and with no dominant architectural style or node of development.

Peacockes Road performs as a central collector serving the rural properties and sweeps around the northern and eastern side of the structure plan area, before ascending the ridge that defines the south-eastern extent of the Peacocke area. The alignment of Peacockes Road broadly follows the meander of the Waikato River and is roughly equidistant between the gully and river. Two short side roads branch off Peacockes Road in the eastern portion of the structure plan area, being Peacockes Lane and Weston Lea Drive.

![Figure 3. Existing Road Network](image)

Figure 3. Existing Road Network

The south-western side of the growth cell is separated from Peacockes Road by the Mangakotukutuku gully and is served by Hall, Waterford and Dixon Roads. There is legal road reserve linking Hall Road with Dixon Road across an arm of the gully but has not been developed as yet.

There is limited lifestyle block development in the Weston Lea Drive, Hall Road and Peacockes Lane area and these areas have a more closely settled and intimate character as a result. This contrasts with the more rolling open country to the south where land remains in larger farm holdings with a characteristic open pastoral character and a more sparse distribution of buildings.
The Hamilton City Water Treatment Plant is located in the northern part of the area. This plant provides the water supply to the city and is a key infrastructure asset.

There are two principal land uses adjacent to the structure plan area. To the north-west, and to the north on the opposite side of the Waikato River, are existing urban areas. These are predominantly residential in land use although Hamilton Gardens lies on the opposite bank of the Waikato River to the north. To the south and south-west are a range of rural land uses within the Waipa District. To the east on the opposite side of the Waikato River is Tamahere, which is an area characterised by lifestyle block development.

![Figure 4. Current Zoning Plan in the Hamilton City Proposed District Plan (References Version).](image)

The Waipa District Plan identifies the adjoining land as being predominantly rural zoned although there is an area of rural-residential zoned land in the Faiping Road area. A Special Landscape Character Area also adjoins the city boundary along Ohaupo Road which is a planning framework aimed at maintaining the particular amenity and landscape characteristics of that area. This area is an attractive pastoral landscape and includes views to the peat lakes and across the farming landscape towards Pirongia. This is a more restrictive regime that manages the location and size of buildings and with additional controls over land use.
Ohaupo Road and the southern portion of Peacockes Road runs along a ridgeline which also forms the city boundary. This means that visually the land within Peacocke is quite separate from the adjoining land within Waipa District with potentially quite a stark differentiation along the city boundary between the urban and rural environments.

The Hamilton Airport is located to the south of the Peacocke study area within Waipa District. Rules relating to the Hamilton Airport Protection Overlay are incorporated into the Hamilton City Proposed District Plan and the purpose of which is to protect uninterrupted air traffic approach paths and minimise the exposure of residential activities to airport noise. This overlay does cover part of the Peacocke study area but discussions with Waikato Regional Airport Limited indicate there is not a serious constraint on development in Peacocke. What does need to be noted are proposals to extend the airport runway which may alter the extent of the control boundaries and does need to be monitored.

The current zoning pattern of the structure plan area in the Hamilton City Proposed District Plan is illustrated in Figure 4. The majority of the Peacocke growth cell is zoned as Future Urban, with some Council reserve land and land along the river frontage being zoned as Recreation Environment.

**Topography and Landscape Issues**

The Peacocke growth cell is physically a part of the much larger Waikato Basin that encompasses the Hamilton urban area. This basin is a large-scale depression filled with sediments, mainly of alluvial origin but with some ash deposited by volcanic eruptions. The topography is generally flat, but with some relief provided by low rolling hills, and ridges, formed by the older and more resistant sediments that protrude above the general level of the plains. There were once extensive peatlands and wetlands across the basin, most of which has been drained or heavily modified through agricultural activity.

The Waikato River is the major natural feature within the basin, and has physically shaped the surrounding landscape. The river has formed a deeply incised channel into the relatively soft sediments, forming terraces along its course and resulting in a deeply trenched channel often lined by steep-sided ignimbrite cliffs. The Waikato River is in many places heavily vegetated on both sides and forms an important landscape and ecological corridor. The vegetation is a mixture of both indigenous and exotic species. The Peacocke growth cell has a 4.5 kilometre river frontage along the growth cell’s northern and eastern boundaries.

The river frontage is clearly the most significant landscape feature of the structure plan area. The Waikato River is a nationally significant waterway and the primary landscape element that has structured the urban development of Hamilton.

The deeply incised nature of the central section of the Waikato River has created a landform that is susceptible to localised bank instability. This is part of the natural process of river morphology. Bank stability can be influenced by a number of factors including the area’s geology, hydrology, vegetation and physical processes. Human activity and development can also impact on the stability of the slopes. There is evidence of localised slips occurring along the banks of the Waikato River within the Peacocke area. Research is being undertaken to establish more complete understanding.
of the underlying causes of instability and identify the extent of any potential hazard. This will enable appropriate planning provisions to be established. These may inform the staging of rezoning/development along the river margins and specific rules within the District Plan to guide and regulate urban development.

Tributaries of the river have created a series of heavily incised gully systems across the Hamilton area. These gullies were originally formed through waterflows, that through seepage from the extensive peat swamps, emerged as springs along the riverbank. The springs caused undermining and slips that led to the formation of gullies that quickly cut back towards their water source. Over hundreds of years this has led to the development of an intricate pattern of branching gullies. Today there are six major gully systems, each of which has an outlet to the Waikato River.

Figure 5. Principal physical elements in Peacocke

The Peacocke growth cell is centred on the eastern arm of one of these systems, the Mangakotukutuku Gully. The gully network is the only coherent landscape element through the centre of the growth cell and provides a physical, hydrological and ecological connection with the river corridor.

The gully has a major channel that extends approximately three kilometres south of the river and naturally operates as the primary water drainage system for Peacocke. Presently the gully watercourse flows through culverts under Waterford and Peacockes Road with an outlet directly into the river at Sandford Park, approximately 500 metres east of Cobham Bridge.

The gully is comprised of steep-sided slopes much of which is dominated by exotic plant species with the gully bottoms dominated by the introduced grey willow.
There are a number of side arms to the main gully as shown in Figure 6. There are three principal arms on the eastern side of the main gully. The first two of these (marked Arm 1 and Arm 2 in Figure 6) cut back on a slightly north-east alignment to the main gully, forking into smaller gullies halfway along their length and extending for around 400 metres in total length. The third eastern arm (Arm 3) meets the main gully almost at right angles, and extends back inland for 600 metres on a south-east alignment.

There is one major side arm on the western side (Arm 4). This section extends south-west for nearly a kilometre, bisecting the area between the main gully and the western structure plan boundary along Dixon Road.

![Figure 6. Gully Network](image)

A separate, much smaller gully system (referred to as the Eastern Gully) extends directly southwards from the river for a distance of one kilometre, terminating at the northern end of Gainsford Road which is a ‘paper road’ only at this point. This gully is a former river channel of the Waikato River. This gully defines a naturally semi-circular river terrace that is the easternmost part of the structure plan area.

The gullies are comprised of two principal features – a narrow floor that is typically flat and poorly drained, and terrace scarps and gully sides that are steep and are generally well drained. The gullies within Peacocke are heavily incised vertical features for remarkably large distances inland, and with little visibility beyond the immediate gully edge (Boffa Miskell, 2006).

The northern half of the structure plan area north of Arms 2 and 4 of the gully, is generally flat, with three semi-circular river terraces marking prominent bends in the river. A localised knoll is located beside the sharp right angle bend on Peacockes Road,
directly to the east of Arm 1 of the gully. This high point reaches a peak of more than 30 metres above the surrounding area.

The southern half of the growth cell is more gently rolling, generally gaining in elevation towards the south, but bisected by a low lying depression through the centre that is an extension of the main gully. This rolling hill country extends up to two ridges, one in the south-east and one in the south-west, that meet in the middle at an apex that is the southernmost point of the structure plan area. The high points along these ridges are 65 metres higher than the level of the river.

Figure 7. Topographical Map showing the changes in contours across the structure plan area.
These ridgelines are not significant landscape features, but do provide a degree of visual containment and definition to the southern boundary of the growth cell. This area has an attractive northerly aspect and elevation highly desirable for urban development (Boffa Miskell 2006).

Whilst urban development will inevitably change the nature of the landscape it is essential to retain the area’s general topography and significant natural features and incorporate those within the urban development that takes place. The application of good urban design principles can ensure the existing landform is responded to positively to shape the character, appearance, and distinctiveness of the area.

The ridgelines in the southern portion provide an element of containment and definition to the structure plan area. By this it is meant that the ridgeline forms a natural edge to the structure plan area, but in themselves are not considered to be significant landscape features that need protection from urban development. However the elevated nature of these ridges should be used to inform the pattern and form of development in this area. Careful consideration should be given to development along the top of the ridgelines in order to avoid incongruous skyline development and to develop viewing points. There may be opportunity to provide reserves in prominent locations where there are view points across the adjacent countryside and towards the city centre. Council’s water reservoir on Chinaman’s Hill may be such an opportunity.

Existing Vegetation

Little remains of the indigenous vegetation cover which appears to have been mixed podocarp broadleaf forest similar to much of the Waikato basin, dominated by Rimu, Tawa and Kahikatea. The only sizeable indigenous vegetation remnants that remain are two patches of Kanuka and Mahoe forest along the river margin, and small patches within the gullies.

The ecological values of these areas of vegetation have been assessed by Clarkson (2000) as part of a city-wide review of potential ecological sites, and a subsequent Council site assessment (Hamilton City Council, 2006) with the site shown in Figure 8 being recommended for statutory protection through the District Plan.

The remainder of vegetation along the river margins is a mix of regenerated indigenous vegetation and exotic weed species. This vegetation is of mixed quality, but has good potential to be enhanced through a comprehensive programme of replanting. A well-vegetated river corridor is an important landscape characteristic that should be actively pursued in parallel to urban development within Peacocke.

The gully systems are generally well-vegetated as a result of their lack of suitability for grazing. Despite this the existing vegetation cover is highly modified and is dominated by exotic weed species such as pine, willow, and blackberry. Indigenous species are present in the understory in places but invasive species are dominant in many areas.

Farmland vegetation is present throughout the structure plan area in the form of shelterbelts, hedgerows, and exotic trees, both as individual specimens and clusters of trees. Shelterbelts are more of a feature in the northern portion of the growth cell and contribute to the more enclosed and settled character of that area. Hedgerows are present in the more open central and southern areas defining paddocks and the pattern...
of historic agricultural development. These hedgerows contribute to the visual amenity and attractiveness of the open rural landscape and serve to emphasise the contour of the land. They are not of sufficient height or scale to contribute significantly to the future urban landscape.

Figure 8. View south from Hammond Park towards Waikato River margin showing forest remnant

Figure 9. View south towards the modified upper section of the Mangakotukutuku Gully (Boffa Miskell, 2006)

Figure 10. View of farmland and exotic vegetation cover typical of much of the Peacocke area

Figure 11. View looking south from Hamilton Gardens towards the Weston Lea Drive area (Boffa Miskell, 2006).
Figure 12. Existing vegetation within the Peacocke Growth Cell (Boffa Miskell, 2006)

The presence of large numbers of individual and clusters of exotic trees is a particular feature of the Peacocke area. The trees have been planted progressively over the past hundred years or so for shade and for amenity reasons. There is a particularly heavy concentration of such trees in the Peacockes Lane area and along the northern areas between Peacockes Road and the river which create a heavily vegetated backdrop to the southern riverbank as viewed from Hamilton Gardens and residential areas on the opposite side of the river. Maintaining a heavily vegetated backdrop to the Hamilton Gardens is an issue that needs to be considered when detailed master planning is taking place for the area opposite Hamilton Gardens.

All of this vegetation contributes to the character and amenity of the Peacocke area. While the majority of it does not warrant total protection from future urban development, there are opportunities to incorporate it within the form of urban development as a key structuring element. This enables the future urban development in Peacocke to be distinctive, diverse, and reflective of the landscape characteristics of the area.
Other Physical Characteristics

The geology of most of the area is typical of the margins of the Waikato River being dominated by alluvial deposits. Soils are predominantly sands, clays and loams although the western margin borders on the original Rukuhia Peat Bog. There is a small peat lake adjacent to Hall Road which is a relic of this wider system, but otherwise the only standing water is within the Mangakotukutuku Gully system.

The hydrology of the Mangakotukutuku Gully system is still relatively intact and connectivity between all parts of this system appear to be maintained. Ecological values within the gully appear high relative to other gullies within Hamilton given the catchment is currently rural in land use. Restoration of indigenous vegetation as has occurred in other Hamilton gullies would greatly increase the ecological value of this system.

A large part of the study area drains to the Mangakotukutuku Gully system, which then drains to the Waikato River. The gullies are highly susceptible to erosion due to the friable nature of the volcanic soils. This has resulted in incised, steep sided gullies resulting in fast flowing run-off contributing to high rates of erosion in these areas and sometimes poor quality discharge to the Waikato River.

The gully is effectively an existing overland flow channel and minor modifications to the profile of this channel can benefit greatly the rate and quality of the discharge to the Waikato River. Retention areas and other stormwater management techniques in the gully system such as energy dissipaters or meanders in the gullies can be used to slow the overland flow so that erosion is reduced. Given the increase in impervious area as urban development occurs, the potential for increases in the runoff volume from a storm is increased. The initial concepts for the stormwater network developed has this fundamental issue at the core of the design work completed.

Previous development and agricultural activity across the majority of the structure plan area has affected the catchment areas and they do not represent pristine environments. Consequently the water and environmental quality of the natural catchments has diminished from its natural state.

The proposal is to construct a series of detention dams to manage stormwater within the Mangakotukutuku gully. While this modifies the existing environment, it also provides opportunity to undertake replanting of wetland areas around the water bodies and weed removal. The resulting package of environmental enhancements can contribute to transforming the gully system into an ecological corridor with high scenic and recreational values.

The gully system can provide an important natural link within what will be a rapidly urbanising area. The importance of the gullies in terms of their broader ecological value is that they provide habitat for wetland fauna and flora with different seasonal habitat requirements and support existing invertebrate, fish, and bird migration pathways between other wetland remnants within the local urban and rural landscapes. There are also opportunities to link the gully system with the river corridor through green networks to enhance this. Figure 13 shows the extent of the gully system and consequently the amount of developable land available within Peacocke.
Information on soil types has been derived from Landcare Research's soil database as detailed in Figure 14. In general the area has soils made up of sand and silt alluvial deposits related to the Waikato River. These soils have relatively high permeability and are in general suitable for urban development. More detailed analysis of specific areas will occur as part of the subdivision and development process following the future rezoning of land.

The predominant geotechnical constraint relates to land close to the Waikato River, land directly along the edge of the gully system, and the more elevated and steeply sloping areas in the southern portion of Peacocke given the potential for slope movement. This is likely to be accentuated in areas of steeper gradient and in wet...
conditions, especially near to natural springs. This may give rise to some stability issues and needs to be considered when the land is developed. Reticulation of stormwater will help to reduce potentially adverse effects in this regard and site specific investigations and designs should be undertaken at subdivision stage in these areas.

![Map of Peacocke with Soil Groupings](image)

Figure 14. Soil Groupings in Peacocke (Aqualinc Research and Landcare Research, 2005)

**Cultural Heritage**

An assessment of the area’s cultural values and significance has been undertaken by Nga Mana Toopu O Kirikiriroa (2006). This identifies a long history of occupation by various hapu prior to European settlement.

Over the years deforestation and farming activities have significantly modified the area, resulting in the loss or destruction of many of the historic cultural features. Nevertheless, development and drainage within the structure plan area are still present concerns to Maori. Therefore, it will be necessary to ensure that the effects of development and urbanisation are mitigated and appropriate protocols are followed. As it may not always be possible to identify specific sites, mitigation may need to focus on commemorating the life and practices of the Maori people who lived in the area and renewing those links where possible.

There is a significant opportunity for the reserves network along the Waikato River and the Mangakotukutuku Gully to contribute to the cultural value of the area through the re-establishment of indigenous ecosystems of the Hamilton basin. Both the river and gully have very strong historical associations for local iwi which can be recovered to some extent by restoring the physical environment.
Naming of reserves and roads is a further way that both the Maori history of the area and Pakeha history can be reflected and celebrated. More detailed investigation into the cultural heritage values of individual areas is likely to be required for specific areas prior to development occurring through master planning.

There are a number of significant pa sites in the Peacocke area. The Whatukoruru Pa is located between two arms of the Mangakotukutuku Gully and is already held in public ownership. A further historic pa site is located on Council-owned land adjacent to the Glenview Club on Peacockes Road, and a further pa is located in the Stubbs Road area. Borrow pits and other archaeological features indicate both the river and gully were heavily occupied by Maori.

No buildings within the area have been recognised to date for their historic or architectural value, and none are currently identified as having heritage status. This is an area that requires further assessment prior to rezoning to identify whether there are any historic homesteads or other buildings that warrant recognition and protection.

Ecology

Farming and development activity within and around the structure plan area has impacted on the biodiversity over the past few centuries. There is little indigenous vegetation remaining, with the majority of the remnant indigenous vegetation being within the Waikato River corridor and the Mangakotukutuku Gully. Historical records indicate that much of the area was covered in forest, predominantly Kahikatea forest on the lower lying areas, with a mix of species on the elevated areas, including Kauri, Rimu, and Totara. The majority of the locality is now used as grazing or cropping land. There are a large number of substantial exotic trees located within the Peacocke area and this is one of the features of the study area.

A study was undertaken by Clarkson (2000) to analyse any areas of ecological note. The outcome of that study is that four areas of regenerating bush were identified within the river corridor and gully system as being relatively significant. One of those areas is considered to warrant protection being an area of forest on the riverbank opposite Hammond Park and this is being discussed with the landowners.

Stormwater run off from the farm land has resulted in increased nutrient levels in the watercourses and lakes. Farming activities and land drainage have reduced the influence of peat on the lakes and affected the natural balance of the water features. Replacing agricultural land with urban development could help to reduce the passage of nutrients into the watercourses. However, urbanisation could also have significant effects on drainage patterns as the amount of impervious surface increases substantially, thus impacting on aquatic and wetland habitats. It will also increase the amount of domestic animals and possibly the incidence of predation on wildlife.

Transportation

The structure plan area is currently served by a number of local roads. The road network is not extensive as it serves the relatively large landholdings of the area. Hall Road, Ohaupo Road, Dixon Road and Waterford Road provides property access in the western portion of the study area, while Peacockes Road is the primary transportation
corridor in the eastern portion. Ohaupo Road is also State Highway 3 and currently serves as the key arterial route into the south of the city.

Together these roads provide access to the existing properties. There are currently no public transport services or dedicated facilities for cyclists or pedestrians within the area. The provision of a range of integrated transport facilities will provide a more sustainable form of development, improving accessibility (particularly for local trips) and assist with travel demand management.

The extent and capacity of the local road network serving the structure plan area is limited. In its present form it would be insufficient to accommodate the traffic volumes generated by developing this area with an urban form. However, the area is capable of supporting further transport infrastructure, through the upgrading of existing roads and the provision of new routes.

In order to efficiently and effectively accommodate the anticipated traffic flows, a comprehensive roading hierarchy has been developed for the structure plan area. This will need to integrate with the surrounding network and has considered opportunities for future connections to the developing city wide network and further city growth beyond the existing city boundary. Modelling of various options has enabled the efficiency and effectiveness of routes to be tested, and the connectivity of different parts of the growth cell with each other and with the existing city has been evaluated.

Roads have the potential to make a significant impact on the environment. Careful design, including the use of materials, street furniture and landscaping can help to reduce adverse effects and ensure safety and ease of movement for all users. The location of collector and local roads close to key amenities like the gully and river can also inject activity into these areas and contribute to creating an active edge that enhances the distinctiveness and quality of urban environments.

Infrastructure

The Peacocke area currently contains no stormwater, water, and wastewater infrastructure. The networks are available at the northern edge of the growth cell in the Glenview and Fitzroy area and along the northern portion of Peacockes Road as far as Waiora Terrace although there are capacity constraints in those networks. The existing roading infrastructure is fairly typical of rural areas and is not capable of serving full urban development in its current form. The Water Treatment Plant is located at Waiora Terrace and a water reservoir has recently been constructed at Chinaman’s Hill on Ohaupo Road which ensures good supply is available. In terms of stormwater, the Mangakotukutuku Gully and Waikato River provide a natural drainage pattern that can be enhanced and supplemented to serve urban development.

Wastewater capacity between the Pukete plant and Peacocke is not available however with the existing pipes at capacity. This requires large investment to increase this capacity and this upgrade has not been included within the infrastructure programme of the Long Term Plan 2006-16. Servicing this area by increasing the wastewater network capacity back to the Pukete plant is preferred but other alternatives will be investigated and considered.

Currently there are limited electricity, gas and telecommunication services available within the Peacocke area. However, the nature of the area means that it would be
possible to extend these services as the area develops. Incrementally rolling out development from the existing urban area will be the most efficient way to co-ordinate utility provision. In order to minimise land requirements and potential environmental impact, the use of shared infrastructure and utility corridors should be used.

**Built Development**

The existing buildings within the Peacocke area only make a minor contribution to meeting the needs for the city's growing population. The current population within the growth cell is estimated at 470. The current built environment reflects the rural land uses of the area with some more recent lifestyle block development given the close proximity to the city. The fragmented pattern of land ownership in some areas does create limitations and difficulties for urban development and intensification. However, in general there is considerable urban development potential in the Peacocke area.

There are opportunities to expand and diversify the range of facilities within the area to include housing, employment generating activities, commercial development, community facilities and schools. Market interest has been expressed in providing such forms of development which would provide facilities and activities not currently located within the Peacocke area with consequent benefits for the population. Whilst inevitably development will transform the existing land uses and alter the area’s natural and physical resources and character to some extent, it is critical that development proceeds in a coordinated and planned manner.

The built environment in adjacent areas falls into two distinct categories. To the north and north-west of Peacocke is the existing urban area of Hamilton which is characterised by suburban style urban development. Predominantly this is residential although there is the Riverlea industrial area to the north-east on the opposite side of the Waikato River.

To the south, east, and west are rural landscapes with a character and built environment similar to that of the Peacocke area currently. To the east on the opposite side of the river is the Tamahere area of the Waikato District. This area is characterised by large-scale lifestyle block development and the area generally has an attractive parkland appearance.

To the south and west is the Rukuhia and Templeview areas which are characterised by a mixture of lifestyle blocks and farming operations. Generally the character is of larger landholdings utilised by farming operations, with clusters of lifestyle blocks on smaller landholdings. Increasingly the demand for lifestyle block development appears to be steadily transforming these areas into a peri-urban environment where the majority of residents primarily utilise the city for their employment, and for facilities such as schools and shopping. This trend looks likely to continue particularly as the Peacocke area is urbanised as these areas become located on the city edge in closer proximity to the services and employment generated within Peacocke.

**Employment**

Agricultural and land-based activities are currently the major employment activity within the Peacocke area. This employment is locally focussed. Urbanisation provides opportunities to introduce a diverse variety of employment opportunities. This is
essential in creating a balanced urban area to minimise the need for travel outside of the Peacocke area to access services like schools, retail, employment, and community facilities. Large-scale industrial and commercial areas are not planned for the Peacocke area with it being primarily residential. The reason for this is that one of the drivers of development in Peacocke is the revitalisation of the south-west of the city by orienting development to be complementary to existing development in the south-west, and not competitive to it. The south-west of the city has facilities and services which are considered to be under-utilised and would benefit greatly from an increase in the residential catchment of those services. For this reason the commercial and community nodes have been directed to the eastern and southern portions of Peacocke to achieve this. The key to the success of this approach is ensuring the Peacocke area is connected with good quality transportation routes to the existing city.

The other key driver in this regard is that there are already large employment nodes in close proximity to Peacocke which negate the need for regionally significant employment nodes within Peacocke. The central city is approximately four kilometres from the northern part of Peacocke and is well connected to this area via the City Link major arterial route connecting to Cobham Drive. The Eastern Link route provides a similarly direct route to the University of Waikato/Ruakura employment node. The east-west major arterial through the central part of the Peacocke area provides connectivity onto the existing Ohaupo Road and to the hospital. Furthermore the Transit Southern Links route will provide a direct route to the industrial development in the Kahikatea Drive area, and also via Transit’s Western Corridor route through to Te Rapa in the north of the city.

The other employment node becoming increasingly significant is the airport. Proposals are being prepared for a possible Plan Change to the Waipa District Plan to rezone a large area for industrial development. The proposed business park development would change the employment dynamics of the southern part of the city and Peacocke is ideally placed to be the major labour source for this area.

A further advantage to the above approach is to enable the Peacocke area to be urbanised with a focus on good quality urban design and creating high residential amenity. The need to design buffers or other measures to provide separation between industrial and residential areas is avoided and large-scale industrial areas that might have otherwise presented a challenge to the desired amenity levels are avoided.

Recreation

There are very limited recreational opportunities within the Peacocke area at present. The introduction of urban development will bring forward the need for further recreational facilities, for both formal and informal use. These have been designed to relate to existing landscape features and watercourses and provide a range of linked facilities with cross functional benefits. Neighbourhood and local reserves are also being used to create focal points, amenity buffers and transitional areas within the built form.

There are existing undeveloped reserves administered by Council such as the Whatukoruru Reserve in the centre of Peacocke however they presently do not provide a recreational resource for the city.
City Growth

City growth is about growth pressures and how Council responds to those pressures. In order for the market to operate effectively it is important that the city maintains an adequate supply of zoned and serviced land to meet or exceed anticipated demand. However, unregulated growth is unlikely to increase demand above the established market drivers in the city, and will create significant pressure on infrastructure and utility providers particularly where new areas require major capital plant to service them. Therefore, in order to help co-ordinate growth and integrate new communities with the established parts of the city, Council has approved a growth strategy that seeks to phase development of the new growth areas.

The Hamilton Urban Growth Strategy identifies continued development at Rototuna as the means to address short term residential needs. Rotokauri will provide for mixed use development, including industrial, commercial and residential activities, in the short to medium term. The Peacocke area will cater for further residential growth in the medium to long term. In the longer term further city expansion is seen as a key approach to maintaining land supply.

Completion of the Peacocke Structure Plan and incorporating it within the Proposed District Plan is a further key step to managing the city’s land resource for future growth.
PART C – URBAN DESIGN STRATEGY

Urban Design Principles

A landscape and urban design assessment for Peacocke was commissioned from Boffa Miskell Limited (2006) to provide strategic direction on how urban development within Peacocke could best respond to the characteristics and landform of the area. Twenty-one urban design principles have been identified to guide urban development as follows:

Integrate movement routes with surrounding neighbourhoods

- Extend primary movement routes from Glenview, Fitzroy and the City (via Cobham Drive) into the growth cell and use new routes to ‘stitch’ these together. Use these routes to orientate the secondary street network;
- Seek ways to reduce the impact of major movement barriers such as major arterial roads, the Mangakotukutuku Gully and the Waikato River.

Higher density development at nodal points

- Match higher density to the most accessible locations and highest incidence of activity;
- Intersect proposed public transport routes at these nodes for critical mass of population and efficient interchange capabilities.

Overlapping mix of land uses

- Provide a wide variety of land use activities within comfortable walking distance of the highest population densities;
- Use mixed use planning rules to encourage a diverse and compatible range of activities, both vertically and horizontally.
Regenerate existing suburbs through shared amenities

- Utilise new investment as an opportunity to improve or develop new amenities where deficiencies are recognised and allow new residents to ‘tap’ into and help sustain existing community structures;
- Avoid conflicts with overprovision of amenities and undue competition with existing facilities.

Protect and enhance significant natural features

- Protect the physical integrity and ecological and stormwater functions of the Mangakotukutuku Gully and Waikato River margins by vesting them as public reserve and undertaking active revegetation where appropriate;
- Provide an undeveloped open space buffer zone beyond the top edge of the Mangakotukutuku Gully and Waikato River to improve legibility from all parts of the growth cell;
- Provide for revegetated gullies and river margins.

Create a continuous network of open space

- Establish an inter-connected matrix of open space centred on public open space reserves incorporating the gully systems and river margins and with green corridors, avenue-style street connections and recreational and neighbourhood parks linking these areas.

Create ecological and open space links between gully and river

- Provide green corridors between the major arms of the Mangakotukutuku Gully and Waikato River;
- Align secondary and local street networks to create strong physical and visual connections between gully system and river.
Provide a public edge to the gully and river

- Avoid new development ‘turning its back’ or privatising ‘edges’ to major natural features and recreational areas;
- Avoid the creation of access barriers to allow for a wide spectrum of the resident population and visitors to physically access or visually interact with these features.

Utilise natural promontories and edges to develop distinct urban areas

- Use natural features to define neighbourhood edges and inform the development of a diverse range of living environments across the growth cell;
- Use these landscape qualities as generators for niche market opportunities (i.e. Riverside Villages).

Street layout to reflect natural edges

- Street layouts adjacent to major natural features should reinforce their forms through either ‘moulding’ to edges or providing a ‘positive contrast’.

Retain existing vegetation patterns and incorporate into urban form

- Encourage the retention of existing native and exotic vegetation that will help structure and characterise the layout of new developments and lend an established landscape character to the growth cell.
Locate neighbourhood centres within walking distance to recreational areas

- Ensure higher density developments, with reduced opportunities for private open space, are in close proximity to larger communal recreation areas.

Locate large recreation areas on flat sites at the periphery of dense urban areas

- Locate formal sports pitches on slopes less than 1:50 and of sufficient coverage to avoid large quantities of cut and fill;
- Locate large recreational areas on the periphery of higher density areas where a balance can be struck between proximity and the impact these large areas have on critical population catchments.

Protect rural views behind ridgelines

- Restrict the impact of higher density areas on the rural character by generally containing visual effects within the catchment area of the Mangakotukutuku Gully;
- Provide for lower density development (1200sqm +) and a greater building setback along the Ohaupo and Peacockes Road ridgelines.

Protect distant views to city and regional landscape features

- Maintain strategic views from Peacockes Road and the localised knoll near Peacockes Lane to areas outside the growth cell through lower density development and greater building setbacks in these locations.
Protect historic and culturally significant sites or features

- Respect known pa sites, borrows pits and other cultural associations with waterways and the land, through the creation of protective reserves or enlightening developers to ways of integrating these features into new development for the benefit of all stakeholders;
- Maori and Pakeha culture and heritage can be generally perpetuated through retaining familiar landmarks and also by non-physical means, such as place names.

Utilise existing roads where possible

- Reduce environmental impacts and financial costs of building new roading infrastructure where existing road alignments can be used;
- Maintain a degree of familiarity for local residents and link to the established landscape character by retaining historical routes, which are often already well sited.

Align new streets to existing contours

- Follow existing contours or ridgelines to avoid large quantities of cut and fill and reduce the physical and visual effects of major infrastructure works on the landscape.

Develop only on suitable slopes and avoid modification of landforms

- Slopes steeper than 15 degrees are regarded as unsuitable for development given accessibility, stability and extent of earthworks required.
- Large-scale earthworks and modifications to landforms should be avoided to ensure development responds positively to the landscape and enables the creation of a distinctive urban form.
Maximise solar orientation

- Generally, the growth cell has good slope orientation for layout of development within the critical 20 degrees either side of north;
- Avoid development on steeper south facing slopes where overshadowing for large parts of the day could affect solar gain and require higher energy need.

Future-proof structure plan for further expansion of the city

- The structure plan and subsequent development should not preclude good physical integration and service provision for additional growth beyond the Peacocke boundaries.

A further key aspect of the Boffa Miskell study (2006) is the definition of distinctive localities within Peacocke. The more clearly delineated and spatially distinct localities within the structure plan area are identified as:

- The three semi-circular river terraces that are highly distinct forms strongly defined by the river frontage, and in the case of the southernmost promontory further defined by the eastern gully so as to have natural edges on all sides;
- The localised knoll that defines the sharp right angle bend in Peacockes Road;
- The relatively enclosed landscape to the west of the knoll, centred on Peacockes Lane between Arms 1 and 2;
- An area of relatively flat land south of gully Arm 2 with gully edges on three sides;
- A similarly delineated area on the western side of the main gully, defined by the main gully channel in the east and Arm 4 in the west;
- A low lying area north of the main gully channel that forms a broadly rectangular area between the main gully channel, the built edge of Waterford Road and Plateau Drive, and a terrace scarp that separates it from Peacockes Road.
Boffa Miskell (2006) note that all of these areas are defined by clearly delineated natural boundaries (river edge, gully edge, or enclosing highpoints), and have good potential to become distinctive nodes or naturally defined neighbourhoods within the future urban form that are strongly influenced both physically and visually by the natural landscape characteristics.

The sheer length of the natural edge of the gully and river provide Peacocke with great opportunities in terms of the positive contribution they can make to defining the boundaries and character of neighbourhoods. However they also present a very clear constraint. Urbanisation poses a threat to the ecological functioning of particularly the gully system, as the natural drainage pattern is modified. Flow regimes and the quality of water can be altered resulting in a runoff rate faster than in natural systems.

Furthermore the river frontage, gullies, and ridgelines along Ohaupo and Peacockes Road are areas of visual sensitivity. The northern riverfront between Sandford Park and the forest remnant opposite Hammond Park, and the view from Cobham Bridge looking south are important vistas into Peacocke, as are the ridgelines along Ohaupo Road and Peacocke Road as viewed from rural areas to the south-west and south-east.

These areas of greater visual sensitivity and spatially distinct localities should be targeted for more detailed planning prior to development being progressed in these areas to ensure the characteristics are considered. A master planning exercise for these key areas should be pursued in conjunction with the landowners to enable these key areas to be developed with a distinctive urban form that responds to the characteristics of the particular areas.
The Urban Design Response for Peacocke

The most critical aspect of this structure plan is how urban development responds to the above analysis of constraints and opportunities. Using the localities identified above and the urban design principles as a starting point, a distinctive urban form can be achieved for Peacocke by developing specific objectives and outcomes for each of these key areas. A balanced range of land use activities in locations that are complementary is necessary in order to achieve the urban design outcomes sought. These land uses and their associated activities are reflected in the structure plan diagram and will form the basis for the eventual District Plan zonings.

Character and Appearance

The potential exists for the urban development of the Peacocke area to be distinctive and it is essential this occurs. The extent to which development is shaped by and responds positively to the landscape and features of the Peacocke area will determine the level of distinctiveness that exists. The layout of development needs to respond to the strong landscape features of the Peacocke area, being the Mangakotukutuku Gully, the Waikato River corridor, the undulating landform, and the clusters of vegetation. The primary means of responding to these features is the creation of a series of neighbourhood cells that are defined by the physical features of the area whilst remaining strongly interconnected. In some areas the housing densities of these cells has been increased due to proximity to commercial nodes or other factors, or decreased to accommodate particular ecological or landscape sensitivities.

Figure 16. Utilising the natural landforms enables a distinctive urban form to be created

Council has identified priority areas for land acquisition primarily based on the river corridor and gully system. Collectively these areas form a reserves network that spreads across the growth cell and provides a corridor for a walkway and cycleway network that links different neighbourhoods, and links with commercial and community facilities.
This is an essential element that enables landscape character to be incorporated into development, and provides a basis for an off-road network of walkways and cycleways.

While the urbanisation of the Peacocke area will inevitably transform the existing environment, it is essential to achieving good urban form that urban development is heavily shaped by the existing features and characteristics of the area. Controls are required on the extent of earthworks and land modification that can be undertaken to ensure that the natural landforms inform the shape of urban development in a positive way. The aim is an interesting and distinctive urban form that is based strongly on the underlying landform.

These features such as particular landforms, areas of vegetation, existing road corridors, topography and others, are all structuring elements that can shape urban development. The Waikato River corridor and Mangakotukutuku Gully are the principal structuring elements that will provide the backdrop to urban development, and in some areas separate and define the different cells of development. Primarily these will be residential neighbourhoods that, while they will be well connected with each other and other facilities, are separated in terms of created elements like the roading layout, the location of parks and reserves, commercial precincts, and perhaps their appearance in terms of style of street layout, street furniture, or materials. Furthermore they will be separated by natural elements like gullies or differences in elevation.

The desired outcome is to create neighbourhood cells that are distinct from each other and follow a logical and well-crafted pattern. The purpose of the structure plan is to provide an overall vision and promote certain outcomes, that can then be used by individual developers when designing their subdivisions and through master planning of key areas, so that the components can contribute to the overall urban form. This is about how urban development responds to the natural and historical characteristics of the area in terms of being creative with urban form and avoiding a blanket approach to residential development.

Landscaping and street furniture are examples of fairly minor items that can collectively across the Peacocke area have a strong impact on the distinctiveness of the area through a theme pervading across the urban development. Distinctive street furniture such as light poles, street signs, and park seats can have a strong impact on the appearance of an area. Likewise a different street layout such as carriageway widths or distinctive materials can have an impact on establishing distinctiveness of an area, either between neighbourhoods, or with other parts of the city.

**Density**

The density of development has a strong impact on the appearance and functioning of an urban area. As a general principle it is considered that residential density levels should be higher in areas close (within a five minute walking distance) to community focal points or nodes, and to sports parks and other major reserves such as the future esplanade reserves along the Waikato River. The Mangakotukutuku Gully has sensitivities to nutrient levels and possible effects from urban development that would tend to encourage lower residential densities in close proximity to the gully margin. Likewise the areas less well served by easy access to the river or gully would be considered less suitable for medium and higher density, except in close proximity to community focal points in those areas.
The Residential Zone of the Proposed District Plan is based on minimum lot sizes of 400m$^2$ for the Residential Zone, and 350m$^2$ for the Residential Zone – High Density Areas. Typically the 'hands-off' approach of simply zoning land with little other design guidance has resulted in fairly uniform lot sizes in the new growth areas of the city of between 600-800m$^2$ reflecting the trend towards larger footprint dwellings. Variations to this standard are sometimes the result of physical features of the land being developed, or could be driven by the developer wishing to see either a greater or lesser level of density in their subdivision.

The resulting density level is typically around 12-14 dwellings per hectare which by international standards is very low. The United Kingdom for example has urban density levels of between 25 and 40 dwellings per hectare although this does reflect different historical and cultural traditions. Different densities do provide opportunities to create diversity and choice for residents and can be used as an opportunity to reflect local landforms and characteristics. Good design can result in very well-functioning communities at higher levels of density.

Furthermore, to maintain a compact urban form for the city, support public transport and achieve a walkable city, it is essential that residential development in new growth areas is efficient in how land is utilised. A key aspect to this is that the density of residential development is higher than typical suburban development over the past 40 years.

The urban design strategy for Peacocke is based on varying housing densities across the growth cell driven by both urban design considerations and physical factors. Varying levels of density provide visual relief by changing the appearance of urban development in different areas, and providing opportunities to protect particular features of the area by enabling lower or higher densities in different areas. The aim is to avoid a blanket of housing at the same density which limits the opportunity to add interest or diversity to an area.

The majority of the Peacocke growth cell will be residential in land use given the urban design strategy described above. Approximately 620 hectares of land is considered suitable for urban development with the majority of that destined for residential development of varying densities. It is recommended that a modified residential zoning is used that enables different outcomes and urban forms to be encouraged from the current Residential Zone of the Proposed District Plan. This modified zoning should consider use of an average lot size regime which enables a developer to provide a range for Peacocke Structure Plan 2007 37
of lot sizes within the subdivision provided an average is achieved. This encourages diversity of housing types and provides a better platform for developers to tailor the subdivision to the particular landform and characteristics of the site. It is considered that a density of between 15-20 dwellings per hectare should be encouraged for residential areas within Peacocke, and increased to 30 dwellings per hectare in the identified higher density areas.

Figure 18. Different forms of housing

A further modification that should be pursued is to revise the subdivision standards and assessment criteria to encourage better design standards and promote key urban design outcomes, and discourage other particular outcomes. This is one way the twenty-one urban design principles identified can be given effect to. An example of a principle that could be promoted is providing a public edge to gully and the river through local or collector roads being located along the edge or through concentrating public reserves in such areas, and avoiding residential sections ‘turning their back’ and privatising the edges.

The strategy developed for the Peacocke area is based on promoting higher density residential development on land surrounding the two active recreation reserves, and around the community focal points identified, and lower densities in other sensitive ecological or landscape areas.
The higher density areas around the community focal points contribute in supporting those precincts by concentrating population within easy walking distance of community and commercial services. This has the effect of reducing reliance on the car within the Peacocke area, and supports public transport routes which can be based on linking those community focal points. These focal points or nodes therefore act as the centre of ‘urban villages’ with schools, parks and other community infrastructure focused at these locations.

Higher density development on land adjacent to the two active recreation reserves takes advantage of the open space aspect of these reserves. The six hectare northern reserve and 11 hectare southern reserve represent large areas of flat open space. By concentrating higher densities around this open space it enables the open space to balance the larger buildings and more dense character typical of higher density areas, and enables those residents to have an open space resource within easy walking distance. Furthermore by concentrating a larger population within easy walking distance of the reserves, that population supports provision of better community services within that reserve.

**Ease of Movement**

A fundamental urban design principle is the ease of movement to ensure well connected communities. Given this objective the focus of the structure plan process has been to develop transportation routes that achieve excellent connectivity and enable multi-modal travel to encourage and facilitate alternative forms of transport to the car.

It is essential that transportation routes are designed to also give priority to walking and cycling, and facilitate a seamless web of fast, direct and efficient public transport system that connects nodes with the central area of the city and other key destinations. In this way alternative modes of transport are not treated as an aspect ‘bolted-on’ to a roading network. Facilitating bus services, cycling and walking on the arterial and collector network is generally an issue of the detailed design of the roads, and not a determining factor of the layout and structure of the network. The detailed design work for individual routes will not commence until construction is closer.

Residential densities will increase around the community focal points to act as nodes, with mixed uses to maximise easy access on foot to shops and services. Higher density residential development around nodes also serves to support public transport.

The roading network shown on the structure plan is indicative and not intended to show exact alignments. Collector roads in particular are shown conceptually to provide key linkages between different residential areas, and their precise alignment is largely determined by landowners as individual subdivisions are progressed. Consideration has been given to the future extension of the roading network south of the existing city boundary in the Gainsford Road area should this be required in the future as part of city boundary changes. Furthermore uncertainty around the precise form and function of the Southern Links state highway network also mean the roading network needs to be responsive to changing circumstances and priorities.

The transportation network is made up of a walkway/cycleway network which wherever possible has been developed as a segregated network (i.e. separated from the road), an arterial roading network which link destinations, and a collector road network.
which serve to connect residential neighbourhoods together, to the arterial roading network, and with community and commercial facilities. The distribution of roads across Peacocke based on this hierarchy linking key nodes provides a logical public transport network. While in the foreseeable future this will be based on buses, it is intended that the arterial routes also make provision for alternative modes of transport such as light rail by maintaining corridors.

The roading and walkway/cycleway networks need to ensure there is good connectivity within and between the residential areas so that while they are distinctive localities, they remain part of the wider urban fabric and are easy to get to and from. The location of parks and reserves is also important here to ensure that all key features within Peacocke are easily accessible by walking and cycling. Two aspects of this are that the parks and reserves are distributed across the structure plan area in such a way that they are easily accessible to all areas, and the roading and walkway/cycleway network needs to make the key linkages to ensure that physical barriers such as gully arms do not separate areas and disrupt the connectivity that is required.

Figure 19. Transportation networks need to be responsive to the landform and link key destinations

The key features of the network in this regard are:

• Walkway and cycleway route linking all parts of Peacocke to the central city via the Mangakotukutuku Gully and Waikato river corridor which links with the existing riverside walkway along Cobham Drive into the city;
• ‘City Link’ major arterial route which traverses through the central portion of Peacocke and links with Cobham Drive at the Cobham Bridge to provide a direct route to the central city and hospital;
• ‘Eastern Link’ major arterial route which branches from the City Link route and crosses the Waikato River near Echo Bank Place linking with Cobham Drive and the Hamilton Eastern Arterial route, thus providing a
direct route to the eastern side of the city with major employment nodes such as Ruakura and the University of Waikato;

- ‘City Link’ major arterial route links with Transit New Zealand’s future ‘Southern Links’ network that will likely connect with Greenwood Street in the west, and the Waikato Expressway in the east which provides strong connectivity in all directions;
- ‘East-west’ major arterial route that links ‘City Link’ major arterial with Ohaupo Road near Dixon Road to provide a direct connection from the future ‘Southern Links’ network to the western suburbs, central city and hospital.
- Minor arterial network that provides a link between the western and eastern sides of the growth cell, and the main north-south corridor for the eastern part of the growth;
- Collector road network that links individual residential areas with each other and with the arterial roading network.

**Major Arterial Routes**

The major arterial route has been designed to link Peacocke with the remainder of the city through efficient and direct routes. The major arterial linking Peacocke with the central city via Cobham Drive known as City Link, takes advantage of the location of Peacocke being within approximately three kilometres of the central city by providing a direct and efficient route. The concept is to construct a route from the south of the Peacocke area broadly following the gully along its western flank, crossing the main gully and Arm 1, then sweeping in a north-west direction along the riverbank to connect with Cobham Drive close to the Cobham Bridge.

This route ensures very good connectivity between Peacocke and the central city and will connect with Transit’s Southern Links project in the south. However this route also potentially has a strong severing effect and if not carefully designed will act as a barrier to movement across it. This would have the effect of separating the Peacocke area into two growth cells with poor connectivity between them. This would limit the accessibility of key community infrastructure such as sports reserves, commercial areas, and community facilities and have a detrimental effect on the quality of the urban environment.

There are four east-west roading links proposed, being Peacockes Road in the north, the gully crossing of the major arterial route itself, the major/minor arterial route in the centre of the growth cell, and a collector route in the south. There are 800 metres, 1100 metres, and 700 metres respectively between these links. This strikes a balance between providing good connectivity between the two sides of the growth cell, with limiting the extent of modification to the Mangakotukutuku Gully.

Four walkway and cycleway links are also provided to link the two sides of Peacocke. These are a walkway/cycleway crossing under the major arterial to Arm 1 in the north, a link in the centre of the growth cell near the Whatukoruru Reserve, a link that follows the east-west major/minor arterial route, and a southern walkway/cycleway link that crosses with a collector route. These are separated by 800 metres, 200 metres, 800 metres, and 700 metres respectively which means there is never more than a 400 metres distance to a walkway/cycleway link which is approximately a five minute walk. This is considered to be a good level of connectivity.
The Eastern Link similarly links Peacocke with the eastern side of the city and key employment areas around the university and Ruakura. This additional river crossing relieves pressure on the Cobham Bridge and provides a direct link from Peacocke to the eastern part of the city. The location of the bridge enables a direct link to the Eastern Arterial route which provides a direct travel option to the north of the city.

The east/west major arterial through the centre of Peacocke and linking with SH3 at Dixon Road provides links from the south directly to the western suburbs and the hospital and will be a key local and sub-regional linkage relieving pressure on the eastern bridge crossings. This major arterial will link to a minor arterial road which will give direct access from the western cells of the Peacocke area across to the proposed Peacocke Town Centre in the east.

Minor Arterial Routes

The structure plan has two minor arterial routes, a west-east route linking the east-west major arterial from Ohaupo Road across the gully to Peacockes Road and the proposed Peacocke Town Centre, and then a north-south route that follows the existing alignment of Peacockes Road terminating at a junction with the Eastern Link route. An indicative location for the Peacocke Town Centre is shown at the junction of these two key routes which have much more of a local function than the major arterial routes. The minor arterials have been designed to link key destinations within Peacocke and provide key connections with the major arterials that link Peacocke to the wider sub-regional context. The minor arterial may need to extend further south into Waipa District in the future to provide a connection across the Southern Links east-west route into the airport area and the proposed road network accommodates such a link.

The north-south minor arterial is roughly equi-distant between the river and gully and provides the spine for urban development in the eastern portion of Peacocke. This route also has the advantage of following the existing Peacockes Road which provides familiarity to Peacocke residents and avoids the need for an entirely new route.

The west-east minor arterial is the primary transportation corridor for movement across the growth cell. The location of the gully crossing is based on being near the centre of the growth cell to ensure it is effective in linking the two sides of the growth cell, and it crosses the gully at a location where the width and depth of the gully is less severe than further to the north to avoid unnecessary modification to the gully. This route links with the east-west major arterial to provide a connection with Ohaupo Road at the west which provides a convenient route to the Glenview Shopping Centre and the facilities of the existing city.

Collector Roads

Collector roads link the local and arterial road networks and are designed to collect traffic from local roads for distribution onto arterial roads. They also provide for traffic distribution within and between residential, and commercial areas. The collector road network has been designed to serve the future residential areas and provide access to the arterial roading network. The collector roads are a series of loops that link individual residential cells with each other to ensure they are well integrated and contribute to a legible urban form. Collector roads should not be direct routes that are attractive to through-traffic, but rather roads that follow the shape of the land and provide a spine for local roads to connect with.
The principles underlying the collector road network are:

- Achieving good continuity and connectivity for bus routes and emergency services, and to achieve a good urban form;
- Limiting the distance from any point to a collector or minor arterial to about 400 metres to facilitate walking to bus routes;
- Making use of existing roads, albeit with upgrading, where practical – this applies to parts of Peacockes Road, Peacockes Lane, Hall Road, and Dixon Road;
- Avoiding steeper contours and gullies for reasons of practicality, cost, and preservation of desirable environmental features;
- Limiting the residential area served to about 30 hectares

The many arms of the gully have the potential to create a series of poorly connected and fragmented residential cells with a convoluted network of crescents and cul-de-sacs that inhibit public transport and accessibility. The collector road network has sought to ensure good connectivity but without severing gully arms and modifying the landform unnecessarily. As a solution the collector network has been ‘moulded’ to the natural edges along the river and gully to produce an urban form that reflects the shape of the natural landform. This also has the advantage of allowing the collector roads to front the river and gully in places with housing on one side only fronting the gully or river. This produces an active edge with good natural surveillance from the houses fronting the road and a high quality urban environment.

**Walkway/Cycleway**

The role of the walkway/cycleway network is to provide a safe and attractive network of paths to enable movement to key destinations without use of the private car. The network is a mix of on-road paths (although could still be segregated from the road corridor) to provide for more direct commuter routes, and more recreational-focussed and less direct off-road routes. The structure plan identifies key off-road linkages between key destinations such as the town centre that will be provided through individual subdivision proposals to ensure a comprehensive network is established. In
areas this could be in the form of a green corridor which is quite wide and operates as a recreational space, or simply as a path running through residential areas linking roads and providing a through-route.

The network utilises the gully to provide a north-south route, and the gully arms to link to the east or west with adjoining residential areas. The riverbank has a continuous network of paths that links with the existing riverside walkway/cycleway in the remainder of the city. The nature of the walkway/cycleway will change throughout the route as the landform and adjoining land uses alter. For example in steeper sloped areas revegetation and a more natural setting is likely, compared with where the walkway/cycleway emerges at the Riverside Villages and other key nodes where the appearance should have a more urbanised feel and appearance.

One of the urban design principles identified is the linking of the gully and river through a green network. This has been provided through Arm 3 of the gully that links to the Peacocke Town Centre, through to the sports park, and then to the Waikato River via the Eastern Gully. Other links are provided on the structure plan via Arm 1 and Arm 2 to ensure the two primary landscape features are well connected.

![Figure 21. Green corridors between gully and river](image)

**Urban Design Response to Physical Features**

A key aspect of the structure plan is ensuring urban development responds to the primary landscape features of Peacocke, being the gully network and the Waikato River corridor. These features form the edge to urban development within Peacocke because no development is planned within the Mangakotukutuku Gully network or within the river corridor itself. Therefore the key urban design question is how does the urban form respond to the gully network and river?

The visual sensitivity of the Mangakotukutuku Gully network needs to be acknowledged and considered. The heavily incised nature of the Mangakotukutuku Gully means it potentially has poor legibility and little visual relationship with the wider urban form if it becomes privatised and enclosed along its edges. Private residential properties ‘ring-fencing’ the gully by backing onto the top of the bank, would greatly contribute to the lack of legibility and effectively ‘submerges’ it into residential areas with little visual profile. In this way the visual qualities of the gully are only of value to the relatively few adjacent property owners, but remain hidden from the wider public view. The gullies potentially are rendered merely as stormwater channels and walkway/cycleway routes, but would contribute little visually to the urban landscape if this is allowed to occur. An open space buffer running along the top of the banks is
proposed to make the gully system legible and in turn provide legibility and definition to the surrounding urban form (Boffa Miskell, 2006).

Conversely if local and collector roads run along the gully edge in as many places as possible with houses on one side of the street only, or the gully edge is public reserve land, this avoids the privatisation of the gully and enables it to emerge as a strong feature of the urban fabric. Land acquisition by Council as public reserve should therefore focus not just on the gully itself, but also that the gully edge is public land in the majority of cases.

While the Mangakotukutuku Gully is a heavily modified environment in terms of much of the vegetation present, it retains high ecological and biodiversity values. The Mangakotukutuku Gully is considered to be a more sensitive receiving environment than the Waikato River as the entire gully catchment is located within the Peacocke area. Once that catchment is urbanised, the characteristics of the catchment from a stormwater perspective are completely different than the current situation. There will be a large reduction in permeable surface, an increase in the concentration of stormwater through residential subdivisions and from roading, and changes to the flow rates and contaminants within stormwater.

The approach to managing this issue is to encourage the use of low impact urban design techniques, the avoidance of in-filling of side arms and general separation of residential development from the edge of gullies using building setbacks and design criteria, and reduction in residential densities on land directly adjoining the gully. Collectively this set of measures will ensure that adverse impacts on the natural values of the Mangakotukutuku Gully from the urbanisation of Peacocke can be minimised.

In terms of density of development it is considered that lots sizes of between 800m² and 1200m² would be more suitable for land immediately adjoining the gully system. This will ensure the amount of impervious surface is reduced, and the opportunities for low impact stormwater techniques to be used is increased. From a visual perspective a reduction in density for land adjoining the gully system will contribute to a more open and distinctive urban form in these areas where the gully itself is the dominating feature, rather than being submerged within a densely settled residential area.

The catchment management plan that will be developed for the Peacocke structure plan area prior to urban development commencing will need to explore these issues in much greater detail.

The Waikato River margins have similar characteristics and urban design responses needed. The esplanade reserve along the river will need to be greater than 20 metres in width in places to ensure the reserve reaches the top of the bank. In other parts of the city where this is not the case, it contributes to poor legibility and a lack of awareness of the river’s location from areas that are in relatively close proximity (Boffa Miskell, 2006).

The extent of this esplanade reserve will vary in width based on topography, ecological values, and demand for recreational space in particular areas along the river. The final boundaries of the reserve will be determined at the time of resource consent for urban development on individual blocks of land. The structure plan does signal Council’s intention of acquiring a reserve corridor along the western side of the river and within the gully system, and acquiring a large reserve area east of the Water Treatment Plant as an extension to Hamilton Gardens. The width of this reserve corridor varies
depending on the topography and the extent of vegetation but is generally between 20 and 50 metres in width along the river, and in terms of the gully varies greatly depending on the width of the gully.

The structure plan shows collector routes following the edge of the river to highlight the importance of creating a public and accessible edge to this key feature. This is a critical aspect of the structure plan considerations and in fact a road corridor may continue the entire length of the river frontage, either as collector or local roads.

Master planning of the length of the river frontage should be pursued prior to any development taking place to ensure the opportunities on offer with such a large river frontage in Peacocke are fully utilised to create an interesting and distinctive urban form. This should also ensure that any constraints such as Environmental Protection Overlays and potential hazards are addressed in a coherent manner.

**Retention of existing vegetation** within the gullies, along the river margin, and the farmland vegetation generally around the growth cell, contribute to the existing character and amenity of the structure plan area and should be retained where possible. While much of the existing vegetation in the gully and along the river margin is heavily modified and fairly low quality, it does perform an important ecological and land stability function. This vegetation should be retained and restored as has occurred in other parts of the city.

The predominantly exotic vegetation clustered around the rural and lifestyle block properties within Peacocke can also play an important role in shaping the future urban development. Individual resource consent applications for development of properties should as a basic principle recognise the value of the existing vegetation and use that as a structuring element to design development around. More detailed investigation needs to be undertaken as specific growth cells are released for urban development to ensure the existing vegetation is utilised as a positive characteristic and incorporated into development proposals. As subdivision design criteria are developed when areas of Peacocke are being considered for urban zoning, this should be a key aspect to be incorporated.

The **elevated ridges** in the southern portion of Peacocke provide a degree of physical and visual containment to the growth. The landscape assessment (Boffa Miskell, 2006) describes how they are not prominent skyline ridges that need preservation from urban development. However it will be desirable to maintain a more generous open setting along the road frontages that follow these ridges to ensure the views north are not completely obscured. In this way the elevated nature of this area can be used to create distinctiveness for this area. This may be done through consideration of different front yard setbacks or larger lots in this area, or producing design guidance to ensure this factor is used as a positive structuring element for development in this area.
Figure 22. Development on ridgelines and knolls needs to be managed to maintain viewing points and an open aspect.

The **localised knoll to the east of Peacockes Lane** is the main highpoint in the northern part of Peacocke. There is an opportunity to utilise this to provide a point of difference through design guidance or possible rule changes in this area to encourage the landform to inform the development in this area. This may involve lessening the density or creating a different urban form in these areas. Avoidance of significant roading through or over such features also serves to contribute to that. The structure plan also shows a neighbourhood park on this feature which would provide some open space and possibility for vegetation that would emphasise the elevated nature of the knoll.

To compensate for the reduction in density in more sensitive areas, residential densities in other less sensitive receiving environments should be increased. Higher residential densities are desirable in close proximity to commercial nodes to support the nodes and contribute to their sense of place and distinctiveness.

A large portion of land at the eastern side of the structure plan area is drained directly to the Waikato River and not to the Mangakotukutuku Gully. Furthermore areas that are not directly adjoining to the gully but within the gully catchment, can be controlled more readily in terms of stormwater impacts on the gully and are less likely to be needed to be developed at a lower density. Residential development along the Waikato River could be at a higher density given the less sensitive receiving environment involved, provided development was set back enough to ensure that the natural character of the Waikato River corridor was not unduly affected. In this regard Council has signalled an intention to create a riverside esplanade reserve network that would extend between 20 and 50 metres inland from the existing property boundaries, and the river itself is in a deeply incised valley that means residential development along the banks is unlikely to greatly impact on the natural character. Whilst case by case assessment of resource consent applications will be needed to consider this issue, at a general level this is considered sufficient to avoid significant impacts on the natural character of the river corridor.

**Walkable Neighbourhoods**

A key urban design principle for Peacocke is to create well-connected and walkable residential areas. This means that individual residential neighbourhoods are linked well by local and collector roads, and via off-road walkway and cycleway links. This needs to be balanced around designing a local and collector roading network that responds positively to the strong topographical features like the arms of the Mangakotukutuku Gully. Roads should generally be routed around the gully arms to minimise modification of the landform and limit ecological damage. From an urban design perspective the prominence of the gully network will be unnecessarily reduced by roads cutting through arms of the gully. The aim is to encourage local and collector roads to run along the gully edge in many instances to allow the existing topography to shape urban development and ensure there is activity along the gully edges.

Walkable neighbourhoods is also about creating attractive residential areas with legibility and clear linkages to key destinations such as the commercial/community
nodes where sports parks, schools and community facilities will be located. Residential densities have been increased around these nodes to concentrate more of the population within easy walking distance of key community infrastructure. In this manner an urban form is more likely to be generated that encourages walking and cycling and a reduced reliance on the private car.

The figure below shows the tremendous opportunities that exist in Peacocke to create walkable neighbourhoods. The figure shows the vast majority of future neighbourhoods within Peacocke will be within a ten minute walking distance from either the Mangakotukutuku Gully or Waikato River. In this way these two features provide the recreational focus for these neighbourhoods as the walkway/cycleway network is centred on the river and gully. Furthermore Council has a series of neighbourhood parks and two large active sports reserves in the north and east that provide further recreational opportunities. The location of the sports parks is driven by the need for large flat areas, and based on a general distribution across the structure plan area.

There are areas in the south and west of the structure plan area that are in excess of a ten minute walking distance to either gully or river where clearly Council will need to make a greater contribution in creating reserves given the lack of large natural features in those areas.

Figure 23. Walking Distances from gully and river
Low Impact Urban Design Techniques

Another aspect to this is utilising low impact urban design to limit the modifications to the existing landform and processes. Low impact design is defined as a “design approach for site development that protects and incorporates natural site features into erosion and sediment control and stormwater management plans” (‘Low Impact Design Manual for the Auckland Region’, Auckland Regional Council, Technical Publication No. 124). This approach has strong potential to improve the urbanisation in terms of sustainability principles. Typical features of low impact design are:

- Minimising earthworks and landform change;
- Maintain established treed areas;
- Minimise impervious surfaces such as by limiting road widths and use of pervious paving;
- Use of bio-filtration practices such as swales and buffer strips;
- Creating natural areas to manage stormwater quantity and quality, as well as adding amenity;
- Cluster development – higher density housing with more shared open space;
- Providing wildlife linkages;
- Maintaining natural hydrological conditions such as by maintaining wet areas and soakage areas;
- Avoiding soil compaction.

The purpose is to minimise erosion, protect aquatic habitats, protect and enhance biodiversity and natural character of water bodies, protect significant indigenous habitats, flora and fauna, maintain wetland areas, protect public access to water bodies and so on. Furthermore it enables the landform to be expressed more fully in urban development as it becomes a key structuring element. This approach needs to become a fundamental part of the design approach for new subdivisions.

Mix of Land Uses

While the urban development of Peacocke is primarily residential it is essential that provision be made for a mixture of land uses to ensure there are employment opportunities, and a range of commercial, community, and recreational opportunities available. In many cases this provision is made within the Peacocke area, however for some services it is more efficient to utilise existing services beyond the Peacocke area in which case it is essential that transportation links are strong.

Figure 24. Overlapping mix of land uses
In terms of employment the general strategy is to recognise the close proximity of the Peacocke area to the central city, the industrial area on the western side of the city, and major employers like the Waikato Hospital, the University of Waikato and Ruakura scientific hub. It is proposed that only limited employment be provided within the Peacocke area itself and this be based on retail and other commercial services that are locally targeted. Given this strategy it is essential that the transportation links to employment areas within the existing city are excellent. The transportation network has been designed to ensure transportation is efficient and direct.

The other aspect in this respect is the provision of a range of land uses and employment opportunities within the Peacocke area itself. In this regard provision has been made in the structure plan for a series of commercial and community nodes, and a parks and reserves network to provide recreational opportunities.

**Commercial/Community Nodes**

The scale of residential development within Peacockes has potential to facilitate a population of approximately 20,000 people. It is important that the day to day needs of the emerging community are provided for locally, and particularly spread across the growth cell so as to be within walking distance of the various residential areas. This has the advantage of reducing vehicle trips and supporting the mixed use neighbourhoods sought by the urban design strategy. The approach promoted is that of community focal points or nodes in strategic locations. It is envisaged that there be around five to six such nodes within the Peacocke area.

The nodes are split into two categories with the primary commercial and community centre being the ‘Peacocke Town Centre’. The town centre would be the location for a public library, schools, public transport centre and the focus for the majority of commercial activity within Peacocke. The town centre should be the location for a secondary school should one be required to serve the Peacocke growth cell. The town centre has not been envisaged as merely a shopping centre, but rather as a street-based mixed use centre based around attractive and well functioning public open space. The town centre should contain the mix of land uses and facilities that would be expected within a conventional town centre. The town centre has been indicatively located in the centre of the Peacocke growth cell and on a road junction that ensures it is easily accessible to the entire growth cell. The town centre is not intended to have a regional focus and instead should be oriented to serving the Peacocke growth cell.

The location on arterial routes assists the segregation of heavy vehicles and non local traffic from the proposed residential areas. It also provides scope for integrating public transport facilities capable of providing a range of local and city wide services, and facilitating a modal shift away from private car dependence by increasing the density of residential areas adjoining such nodes.
The other category is the ‘community focal points’ which are smaller in size and serve a local neighbourhood function only. The locations have been chosen based on a wide distribution across the growth cell to maximise the amount of residential land that is within a five minute walking distance of the centres. Wherever possible the centres have been located at junctions to facilitate public transport and accessibility, and adjacent to neighbourhood parks or other open space. Community focal points should be the location for future schools in the Peacocke area to ensure maximum accessibility from adjoining residential areas, and to support the function of the focal points.

The size and location of the town centre and community focal points will be determined in more detail once a retail needs analysis for Peacocke has been developed. This retail needs analysis will help define the intended catchments for the nodes and determine how the proposed centres would best function given the existing commercial centres within the southern part of the city. This analysis will need to be completed prior to the zoning of any commercial land.

The structure plan also shows two Riverside Villages. The concept of the villages is that they act as neighbourhood centres but take advantage of their riverside locality to create very special neighbourhood hubs with a focus on entertainment, restaurants, cafes, and boutique retail.
Residential activity is a key component of all of the above forms of centres. It will be encouraged that residential apartment style development is incorporated within and beside these centres. The built form could be in the form of commercial activity at the ground floor with residential above for example. The benefit of this is that it injects activity and ‘life’ into these centres outside on normal working hours and creates a juxtaposition of different land uses that are complementary.

It is intended that the residential areas within approximately 400 metres of the commercial nodes are promoted as higher density housing areas. The purpose of providing more flexibility in these areas is to encourage higher densities that support the nodes by providing a larger catchment of residents within easy walking distance of the centre. This serves to support public transport in and around the nodes, contribute to the strength and vitality of the mixed use nodes, and gives effect to the urban design strategy by enabling different densities across the Peacocke area. It is envisaged that the areas would have a future zoning that enables densities of around 40 dwellings per hectare and encourages different forms of residential development such as terraced housing and apartments.

The structure plan diagram shows the possible extent and location of these areas, but this is indicative to illustrate the concept and this aspect will need further analysis when specific zoning proposals are being considered. The distribution of these nodes has been designed to ensure all residential areas have access within easy walking distance of community focal points. This encourages local trips, and use of modes of transport other than the car by providing a logical structure for public transport routes and enabling active modes of transport like walking and cycling. The structure plan has higher density residential areas surrounding the commercial nodes to reinforce their primacy and provide a local population base; reduce reliance on the car for access to commercial and community services for a large portion of the population; and to facilitate public transport by concentrating population in strategically located area. The goal is to ensure that each of the nodes have a strong sense of place, are distinctive, and function as the focal point for the community.

The locations shown on the structure plan diagram have been identified as meeting the above criteria. The nodes have been concentrated in the east and south of Peacocke to recognise the objective of revitalisation of the Melville/Glenview suburbs. The north-western portion of Peacocke has good accessibility and are considered close enough to the existing shopping areas in those suburbs that additional provision has not been made.
Safety

Crime Prevention Through Environmental Design (CPTED) principles should be incorporated in all of the public and private realm developments. Much of CPTED is about creating urban environments where there is a strong sense of ownership by residents and users of particular areas, rather than creating spaces where a sense of ownership is unlikely. This principle needs to be fundamental in the design of public spaces like walkway and cycleway networks, road underpasses, active recreation reserves, and also a key assessment criteria of private developments such as residential subdivisions and commercial developments. Avoidance of creating spaces that have poor natural surveillance, are poorly integrated with adjoining uses, do not make best use of sun or location in terms of orientation, and are generally not an attractive space that people feel drawn to. The focus of design should be creating spaces that people feel safe and happy to use by designing them to integrate well with surrounding uses and with good connectivity, to have good natural surveillance so people feel safe, are well orientated to make good use of sun and location, and do draw people to use them.

Community and Recreation Facilities

There is currently no land within the Peacocke area zoned Community Facilities and only a handful of sites with a recreation zoning, being the Council owned Whatukoruru Reserve, Sandford Park, and some reserve land adjoining the river.

In order to achieve a sustainable balance of land use activities it will be important to ensure that a range of formal and informal recreational opportunities are provided to meet the diverse needs of the growing population of the Peacocke area. The scale and staging of development, and the need to ensure that each residential component has adequate access to recreational and community facilities will inform the distribution of those facilities.
Community facilities such as a public library, public transport facilities, schools and other community facilities, will be required to support this growing community over time. Detailed work on the nature and location of these facilities has not yet occurred given that the northern portion of Peacocke has access to the existing facilities in the Glenview area and that development of infrastructure for the remainder of Peacocke is not provided for within the Long Term Plan 2006-2016. Therefore any additional facilities will be developed outside of the ten year horizon of the Long Term Plan. When they are required it is envisaged that these facilities will be developed within or close to the commercial and community nodes identified to ensure they are easily accessible to the residential areas of Peacocke.

Figure 25. Reserves are a key piece of community infrastructure and need to be fully integrated with the urban form

A further aspect of this is the parks and reserves network. To the extent consistent with its main purpose, it is desirable that reserves meet multiple functions. Thus where possible:

- Neighbourhood reserves will be alongside gullies;
- Sports parks may have natural areas, play lots and links to gullies;
- Riverside reserves will provide for walkways/cycleways, may have nodes that serve as neighbourhood parks and will incorporate protection of natural areas;
- All parks will provide landscape amenity, and where possible will support environmental values.

Two major sports parks have been identified as being required to meet the current standard of provision within the city. These will contain a number of sports pitches, suitable for senior grade play, junior fields and training areas, and an area that serves a neighbourhood park function. Whilst they will primarily serve the local population, they will also form part of the city wide network of sporting facilities. Two general locations have been shown, the northern park being 6 hectares, and the eastern park being approximately 11 hectares. The need for level, well drained and accessible sites will be significant factors in determining their precise location. Consideration will also need to be given to amenity issues with adjacent properties.

The sports parks have been linked with the green corridor which helps to establish a more integrated network of facilities and improve accessibility. Together the sports parks, neighbourhood parks, and major features such as the gully network and river corridor provide a network of recreational facilities catering for the diverse needs of the local community. They will also make a significant contribution to the character and appearance of the area in line with the urban design strategy by creating public open space around key landscape features and enabling these to structure the urban form.
A further major proposed reserve area is an extension of Hamilton Gardens to the south side of the Waikato River and linked via a pedestrian bridge. Council has signalled an intention to acquire the remaining privately owned land in the area to create a major recreational node along the riverbank, and to provide for the continued expansion of Hamilton Gardens.

Neighbourhood parks provide a range of informal recreation facilities, including children's play areas. These will complement the range of facilities provided by the sports parks and provide a smaller scale focal point for the local community. They will serve a catchment area of approximately 500 metre radius. In order to provide appropriate levels of accessibility and an even distribution of recreational facilities, five neighbourhood parks comprising approximately 0.8 hectare each will be required in the general distribution shown.

Where possible neighbourhood parks will incorporate existing natural features and be sited in prominent locations where there is scope for passive surveillance, outlooks and a high degree of accessibility. They may also act as a transitional area between different activities. Neighbourhood parks will have an informal character with little built development. Like the active recreation sports parks, they will be established within residential areas. Typically once their provision has been secured they are rezoned Recreation Environment.

Locational criteria for neighbourhood parks are:

- Distribution across the growth cell;
- Accessibility to a residential catchment;
- Topography;
- Ability to protect or enhance natural features;
- Ability to protect cultural and heritage values;
- Ability to foster positive neighbourhood identity and provide community focal points;
- Ability to provide off-road linkages between residential neighbourhoods and facilities;
- Ability to link areas of natural and ecological value.

Figure 26. Indicative provision for Sports Parks and Neighbourhood Reserves
The exact location of neighbourhood parks will be determined in consultation with landowners at the time of subdivision, taking into account the factors above and local road layout.

The indicative riverside reserve network shown on the structure plan diagram is based on a 20 metre width along the length of the river. A number of areas of particular landscape value have been identified where the reserve has been widened to indicate Council’s intention to acquire the land. The desired outcome is a vegetated and accessible riverbank corridor that provides a buffer between urban development and this nationally significant waterway.

Provision for public toilet facilities will be required along the riverside and gully walkways. Given the style of use Hamilton’s walkways receive being quite family oriented, a maximum distance of 1-1.5 kilometres (i.e. 2-3 kilometre spacing) is necessary. While no detailed planning in this regard has occurred, in respect of the riverside walkway it is suggested that facilities would be located near the vicinity of the Mangakotukutuku Stream, and toilet facilities located within the Riverside Villages. This would provide the necessary facilities at appropriate spacings. In terms of the gully walkway public toilet facilities every 2-3 kilometres would be appropriate.

The existing areas zoned Recreation Environment will be retained. Likewise it is proposed that the Environmental Protection Overlay will remain in place without change. This will help to maintain existing landscape features and ecological assets of significant value. This will contribute to providing a balanced approach to sustainable management of the area’s natural and physical resources.

Discussions with key providers of community infrastructure like the Ministry of Education are on-going. In terms of education the Ministry have indicated no additional schools would be required to serve Stage 1 of Peacocke as there are under-utilised schools in close proximity. Additional schools will be required in the remainder of the growth cell and will be located in or close to community focal points identified.

Cultural Heritage

Recovering cultural landscape values is a key aspect of planning for urban development. Historically the gullies and river were important sites for Maori and large areas of land adjoining these features were inhabited. Restoration of gully and riverbank ecosystems enables some of the cultural values to be recovered, and the Proposed District Plan recognises and seeks to protect important archaeological sites. Naming of places can also celebrate and recognise historical associations. Hamilton City Council also has an established protocol that is used as a consent condition on subdivision and land use consents where large-scale earthworks are proposed.

Through these measure the structure plan and subsequent urban development should seek to integrate these features into the urban area and enable them to emerge as important and prominent sites that add distinctive and diversity to the urban form.
Figure 27. Celebrating cultural heritage through naming of places and designing the urban form around key features provides opportunities to create a distinctive urban form.
PART D – IMPLEMENTATION STRATEGY

A variety of techniques and methods will be used to ensure successful implementation of the vision and strategies of the Peacocke Structure Plan. These include the phasing of development, provision of infrastructure, and a range of other methods of delivery as follows.

Staging and Infrastructure Provision

The timing of the release of city-wide growth cells is aimed at balancing the provision of sufficient land to meet the level of demand, with the infrastructure programme to provide a managed and predictable land release. The infrastructure has been designed to support the urban design strategy and reflect local circumstances in order to ensure effective service delivery and environmental mitigation. The infrastructure programme for the city is detailed in the Long Term Plan 2006-2016. There are two distinct stages of development planned for the Peacocke area with Stage 1 being a 40 hectare area located at Dixon Road and timed for development in 2008/9. Infrastructure provision for the remainder of the Peacocke growth cell is not provided for within the Long Term Plan and does not have a definite start date.

The staging objectives are as follows:

- To contribute to the strategic growth of the city, by maintaining a balanced supply of land suitable for development over the medium term (approximately 40 year time horizon);
- To enable the market to respond to changing demographic needs and demands, including lifestyle choices.

In the short term the Rototuna area will continue to provide a significant opportunity for residential development in the north of the city. Whilst the availability of an alternative supply of residential land at Rotokauri and the limited release of land at Peacocke will provide the market with a degree of choice and will meet the above objectives. The remainder of the Peacocke growth cell will be released for urban development at a date yet to be determined but likely to be beyond 2016.

Capacity limitations for roading and wastewater have been identified as the main barriers to urban development within the Peacocke area. The Long Term Plan details an infrastructure programme that allows Stage 1 to be released in 2008. This programme includes a package of roading upgrades, a wastewater solution, and other works. A wastewater scheme enables 500 residential lots to be serviced within Stage 1 in the area nominated. Enhancements to the local roading network are also critical to ensure Stage 1 development is well connected to the existing urban area, and to manage any impacts on the State Highway network.

Stormwater and water supply services are able to be provided relatively easily, and there is an existing network of parks and reserves, commercial services, and community facilities such as schools, conveniently located within Glenview that can be accessed. The result is that Stage 1 is effectively an extension to the existing Glenview suburb utilising the existing facilities of that area and therefore contributing strongly to the
revitalisation of Glenview with a fresh injection of investment and people. Given that it is envisaged Stage 1 will be entirely residential with no need for additional facilities within the growth cell. The possible exception to that is very limited provision possibly for a corner store and small scale locally focussed commercial development.

Stage 2 is the remainder of the Peacocke growth cell and is in excess of 650 hectares of land. As the Long Term Plan does not contain an infrastructure programme for this area, it is clearly signalled that there will not be urban development until after 2016. Council has signalled that the servicing of Stage 2 of Peacocke will be reviewed in the next Long Term Plan review in 2009. In the interim there is only limited provision under the existing Future Urban Zone for rural residential development. See the discussion on interim development in this document for further information on this.

A roading and walkway/cycleway network, a future water supply, wastewater and stormwater network, and a parks and reserves network, has been designed for the future development of the Peacocke growth cell. This physical and community infrastructure will be rolled out as part of the release of growth cells within Peacocke. It is envisaged that the general infrastructure planning completed as part of the structure plan will be reviewed and delivered as individual growth cells are released. The 2009 review of the Long Term Plan will provide much greater certainty on the timing of key infrastructure programmes.

**Peacocke Stage 1 Landowner Workshops**

It is the intention of Council to facilitate a series of workshops with the landowners and other interested parties to design a master plan for this 40 hectare area. The intention is that the master plan be jointly adopted by Council and landowners and direct how the Stage 1 area should develop. The workshops would be aimed at:

- agreeing on a shared vision for the area;
- identify key urban design outcomes that should be promoted;
- identify the opportunities and constraints to achieving those design outcomes;
- producing a master plan that sets the strategic direction for the development of Stage 1.

The aim of the master plan is to develop an agreed broad layout for development in this area that expresses the urban design principles being pursued. The master plan should be detailed enough to achieve this but not so detailed as to unduly restrict individual landowners from developing their own site planning in preparation for resource consent applications.

**District Plan Re-Zoning**

The District Plan is the primary statutory tool for managing land uses. The district plan sets out objectives, policies, and rules that collectively promote sustainable management of the city’s natural and physical resources. Whilst a significant number of these mechanisms are already in place, some additional provisions will be required to address the specific needs of the Peacocke area and to fulfil the principles outlined in the structure plan. These will be achieved by means of a Variation to the Proposed District Plan to insert additional provisions and amend current provisions as they relate
to Peacocke. A Variation is being prepared in conjunction with this structure plan known as Variation No. 14. Prior to development commencing in 2008/9, a further Variation will be developed to rezone Stage 1 of Peacocke from Future Urban Zone to urban zones.

The following issues are being addressed through the initial Variation to the Proposed District Plan:

- Inclusion of the Peacocke Structure Plan diagram with explanatory text;
- Amendments to the Subdivision and Development standards as they relate to interim development;
- Amendments to Subdivision and Development – Staging of Development to include indicative infrastructure development programme.

Design Guidance

Design guidelines are an effective tool for shaping the form and function of urban development within a growth cell such as Peacocke. These can be either in the form of non-statutory design guidance, or design guidance located within the Proposed District Plan itself where compliance is required.

Design guidance is being developed city-wide that will be relevant to Peacocke, but opportunities exist to formulate design guidance specifically for Peacocke that reflect the particular characteristics that have been discussed in this document. Issues such as the controls over earthworks and modifications to landforms, differing densities, and layout of street patterns in relation to landforms are all matters that can be dealt with through design guidance.

Furthermore in particular areas that have either particularly high environmental sensitivities, or that are very prominent due to the location or topography of an area, it is envisaged that master plans be developed that detail a scheme that responds to the features and challenges of particular localities. This is a tool that has been demonstrated through international experience to be very effective in achieving high quality urban design outcomes, without the overly prescriptive and inflexible rules-based approach traditionally used in New Zealand by local authorities. It is envisaged that design guidelines and master plans sit comfortably beside the subdivision standards and development standards of the Proposed District Plan, and provide a complementary set of approaches.

Designations

The Resource Management Act makes provision for requiring authorities to lodge a notice of requirement to designate land for the purpose of giving effect to their requirements for public facilities and network utilities. Where necessary designations will be used to secure the provision of public works and facilities within the Peacocke area. These will help to achieve co-ordination of infrastructure across the area and provide opportunities for facilities to be effectively integrated within the environment and the emerging pattern of development. They will also provide an efficient and effective means of providing ongoing management of these facilities.
Currently the only designated land with Peacocke is the Hamilton City Water Treatment Plant which is designated for water treatment purposes, and Ohaupo Road which is designated as a state highway. As part of the future development of the Peacocke area, designations may be required for roading projects, schools, water and wastewater facilities, public reserves, active sports reserves, and other network utilities. The only designations that may be required for Stage 1 Peacocke is land for the wastewater solution, and possible alterations to existing designations for the roading intersection upgrades.

**Development Manual**

The Hamilton City Development Manual sets out the processes and standards that are expected to be followed and met whenever any development project is undertaken in accordance with the Hamilton City District Plan. It includes processes, design guides and technical specifications that, if fully met, will ensure compliance with the District Plan requirements, and hence in turn those of the structure plan.

The Development Manual is an evolving document that needs to reflect changing trends in urban design, Crime Prevention Through Environment Design (CPTED), and low impact urban design techniques for matters like stormwater drainage. This document needs to be reviewed on an on-going basis to ensure it is reflective of current thinking.

**Catchment Management Plan**

The Council will prepare a Catchment Management Plan as part of the on-going development of infrastructure proposals for Peacocke. This will enable a comprehensive discharge consent for stormwater for the growth cell to be secured from Environment Waikato. It will also assist in providing a co-ordinated approach to stormwater management systems. Furthermore it provides a framework for the consenting process for individual subdivisions and developments.

**Development Contributions**

Hamilton City Council will assume responsibility for providing the higher order infrastructure components to serve the structure plan area. The Long Term Plan 2006-2016 does this for Stage 1 Peacocke, and the infrastructure programme for the remainder of Peacocke will be reviewed in 2009. These include arterial roads, upgrades and extensions of water, wastewater and stormwater infrastructure, and community infrastructure such as libraries, walkways and reserves.

As these are required to facilitate city growth the cost of providing these services will primarily be met through Council’s Development and Financial Contributions Policy under the Local Government Act 2002.
PART E – INTERIM DEVELOPMENT

Existing Regime

Currently the Peacocke area is characterised by a mixture of rural activities and lifestyle rural-residential blocks. As a land resource, it is critical to the future of the city that development takes place in an orderly and coordinated manner. There is considerable pressure from land owners and developers to enable development to occur within these areas, either as interim development prior to full urban development occurring, or urban development in advance of the city’s infrastructure programme as detailed in the Long Term Plan. These two facets are referred to here as interim development.

The principal issues are as follows:

- Interim development has the potential to make later conversion to full urban development difficult;
- The urban design outcomes Council is seeking to achieve in Peacocke become much more difficult to achieve if interim development occurs;
- Interim development can result in reverse sensitivity issues for existing rural activities such as dairy farms, pig farms etc.;
- Key environmental and landscape features can be disturbed or destroyed that prevent these features being used as structuring elements in the future urban development of an area.

The demand for more intensive rural residential ‘lifestyle block’ development is intensified in the Peacocke area as a result of the long period of time till full urban development commences. The Future Urban Zone currently applying to the area has a minimum lot size of two hectares. The current provisions relating to the Future Urban Zone are that once a structure plan has been adopted for a growth cell, subdivisions creating allotments of less than two hectares or where the minimum frontage is less than 80 metres, that Council will require a concept plan.

The purpose of the concept plan is to demonstrate how the allotments in the subdivision can be subsequently re-subdivided for full residential development of at least 10 dwellings per hectare, and demonstrating how the current subdivision does not prejudice future full urban development. Furthermore the concept plan must make provision for any proposals shown on the structure plan for the growth cell. Any subdivision of an allotment of 5,000m² or less is deemed to be for full urban development and is therefore required to make full provision for infrastructure services and roading to an urban standard as part of the subdivision and at the subdivider’s cost. The result of this provision is that 5,000m² is effectively the minimum lot size using the concept plan approach as providing full infrastructure servicing is prohibitively expensive in almost all circumstances.

The relevant objective in the Proposed District Plan (Objective 4.1.3) is aimed at ensuring that there is no adverse effect on the significant environmental, ecological and cultural features of the area. In particular that gully and riverbank areas are protected and enhanced, and that archaeological, historic and cultural significance and notable trees are identified and protected. The work undertaken as part of the Peacocke Structure Plan process has incorporated these aspects as a fundamental facet. The
structure plan has identified and reflected these features, and promotes the retention and use of them as structuring elements.

The general premise of the current Future Urban Zone provisions are that interim development is a type of development which requires control, rather than a type of development which is generally undesirable. The amount of interim subdivision that is possible within the Peacocke area does represent a serious risk to the ability of Council to manage this land resource for future urban purposes. Given that context it is considered that interim development in Peacocke is undesirable and the provisions contained within the Proposed District Plan need to reflect that.

This is a particularly important issue for Hamilton City for the following reasons:

- Hamilton City has a very tightly constrained city boundary with relatively small areas for future urban expansion when compared with other comparable cities;
- There is a strong trend for rural-residential development surrounding the city as demonstrated by the amount of lifestyle block development in the triangle bounded by Te Awamutu, Cambridge, and Ngauruwahia;
- The existing district plan provisions are neutral on the issue of interim development.

The current demand for further residential development in the Peacocke area is high and there is a demand for rural-residential development that has not been able to be met under the current two hectare regime. The release of the Peacocke Structure Plan and incorporation into the Proposed District Plan enables subdivision under the regime outlined above. However sporadic interim development can effectively make further conversion into full urban development uneconomic, and compromises providing infrastructure. Interim development potentially delays and complicates the eventual conversion of such land to full urban development.

**Response to Interim Development Pressures**

The purpose of the structure plan is to set the overarching structure and pattern of development, and to detail an infrastructure programme for the eventual development of the growth cell. While the concepts are flexible in their application to some extent, there are critical elements of infrastructure that must be provided for, and often within defined corridors. Furthermore the Peacocke urban design strategy relies on a pattern of land use with features in particular areas based on proximity to physical features such as the riverbank, or the location relative to neighbourhood commercial centres and key development nodes.

Even if the need for provision of a concept plan may result in infrastructure such as collector roads, and trunkmain pipes being provided in some form, the probability of the key urban design concepts of the structure plan being brought to fruition decreases exponentially as the size of allotments decreases below two hectares. Blocks of two hectares or less will simply not be able to achieve the critical mass required to enable neighbourhood centres, or different residential densities to be developed, in a coherent and orderly manner. Essentially this means that the directions charted by the structure plan may become unachievable if large-scale subdivision of blocks below 5,000m² occurs. Given the market demand that appears to exist, the result is likely to be a
highly fragmented pattern of land ownership that threatens the ability to implement the Peacocke Structure Plan.

Interim development of less than two hectares also has the potential to create localised pockets of a particular character or amenity. The large lot residential development at River Road north is an example of such development, as is North Ridge Drive. While this form of development meets a need in the market at a particular time, it also generates an in-built resistance to changing that form of development in the future meaning the city’s objective of full urbanisation is potentially frustrated.

Interim development in what will remain for the next decade a predominantly rural area, has the potential to ‘push out’ the productive land-based enterprises from the area. As urban activities, such as rural-residential or low density residential development takes place within established rural areas, many of the effects associated with the operation of farms or other existing land-based activities such as noise, odour, dust, hours of operation, become less accepted by the community and as a consequence pressures are placed on existing operations. This process has implications for the economic viability of existing activities when pressure mounts to curtail their activities in response. These pressures tend to increase as the scale of residential activity increases, particularly where it occurs sporadically.

There is no fundamental objection to interim development of future growth areas provided the ability for further urban development in an acceptable form is preserved. The Rototuna growth area has demonstrated that the market will often prefer to not take out interim development rights in favour of waiting for Council infrastructure to arrive, or advance funding particular pieces of infrastructure to ‘unlock’ particular landholdings for development.

The structure plan for the Rototuna area was completed in 1999 around the same time as the Proposed District Plan was released. That structure plan was aimed at ‘catching up’ with the market given development was already proceeding in the Flagstaff/Rototuna area and there was an infrastructure programme in place for the remainder of the growth cell. While advanced funding arrangements have been put in place, interim lifestyle block development has not been a feature.

The Rotokauri area had a structure plan completed in 2005 and was adopted by Council at the same time as Variation 8 to rezone Stage 1 of Rotokauri. Stage 1 contained 262 hectares of residential land providing for an estimated 3,500 dwellings over a 20 year period. While there may be some interim lifestyle block development within the Stage 2 area given the time lag until it is developed, the potential is lessened given the certainty around the infrastructure programme and the opening up of a large land resource within Stage 1 that soaks up demand. Following the withdrawal of Variation 8 in 2006 a new Structure Plan is being prepared for Rotokauri. This will still make provision for residential development within Stage 1, but the staging sequence will be reviewed in the light of infrastructure capacity.

There are two factors in the Peacocke area that suggest that interim development will be more widespread and potentially more damaging than in other future urban areas of the City. Firstly, the Long Term Plan 2006-2016 proposes an initial release of 500 lots within a 40 hectare area in the Dixon Road area based on a limited infrastructure programme beginning in 2008. The Long Term Plan makes no provision for other infrastructure within the ten year period meaning release of further land is likely beyond 2016 and with no fixed date. The result is a significant amount of unsatisfied demand for dwellings within the Peacocke area that will only be partially quenched by the
limited release. Furthermore the initial release is likely to be in a single location leaving large areas of the growth cell with no ability to undertake urban development. Secondly, the nature of the initial land release is based on a system for effluent that is not then able to be expanded without significant further cost. The likelihood is that the city will not seek to expand them at any point in the future and will instead undertake the full upgrade of the existing wastewater network to enable the full roll-out through the remainder of the Peacocke area to occur. Furthermore the roading network can be upgraded to cope with the Stage 1 traffic generation relatively easily, but additional development beyond that reaches a threshold where the large-scale roading projects shown on the structure plan diagram are necessary. It therefore would not be prudent to attempt a further limited release and indeed the full roll-out of infrastructure is the only option.

Given this situation, lifestyle block development based on on-site wastewater disposal is left as the only practical development option to a landowner outside of the Stage 1 area, albeit an imperfect one. Coupled with the proximity to the central city, the likelihood is a significant amount of interim development resulting in a highly fragmented pattern of land ownership. Simply put, the incentives for properties to remain rural and intact, is weakened by the length of time till rezoning for urban development takes place, the additional value added through rezoning is a more distant proposition.

The policy response is to limit the opportunity for further interim development and by ensuring a minimum lot size that ensures this process occurs in a managed manner. The existing two hectare minimum lot size and 80 metre minimum frontage provisions shall remain in place to manage the transition from rural to full urban development. Effectively Rule 6.3.3 b) and c) will be suspended in respect of the Peacocke area. Rule 6.3.3 d) would remain allowing allotments created prior to 24 July 1993 to separate a single additional allotment intended solely for residential purposes that has a minimum net site area of 2,500m².

Given the above considerations this approach will provide a more coherent and coordinated response to the interim development pressures that exist, and provide the optimum platform to manage these issues. This ensures that no further lots are created of a size less than two hectares or with a shape with a frontage of less than 80 metres. This step sets a clear threshold that ensures that the interim development that does occur is based on allotment sizes greater than two hectares and does not threaten the city’s objective of achieving full urban development in the entirety of the Peacocke area.
Summary

The purpose of this document is to set a vision for the urban development of the Peacocke area, and outline an urban design strategy, a land use and future zoning strategy, and an implementation strategy, to achieve that vision. The Peacocke Structure Plan diagram sets out the key concepts that have been developed through this work. There will be further opportunities to review the contents of this structure plan, particularly when preparing Variations to the Proposed District Plan to rezone areas as they are released for urban development and through master planning exercises for particular areas.

Given that, the structure plan is the conceptual framework that forms the basis for the evolution of the development proposals for specific areas. Council has flagged through this structure plan the intention of playing an active role in the formulation of development proposals through master planning and design guidance.

The structure plan will also inform investment decisions, and provide a basis for Council’s own decision-making through acquisition of land for reserves and infrastructure, designations for key infrastructure projects, and determining funding priorities. The structure plan is the expression of the collective input from stakeholders and the community and forms the basis for the transformation of the Peacocke area into a high quality urban environment that expresses all of the positive characteristics of this unique landscape.
Supporting Documents

- Peacocke Area Scoping Study, October 2002, Beca Planning;
- Review of the Future Urban Zone Subdivision Standards for Hamilton City, December 2002, Harrison Grierson;
- Southern Links Strategy Study Report, April 2005, Hamilton City Council and Transit New Zealand;
- Peacocke Growth Area Pre-feasibility Study of Decentralised Sewerage Options, Fraser Thomas Limited, undated;
- Peacocke Area Scoping Study – Wastewater Services Options Analysis, Opus International Consultants Limited, August 2005;
- Low Impact Design Manual for the Auckland Region, Auckland Regional Council, Technical Publication No. 124;
- Peacocke Structure Plan: Landscape and Urban Design Assessment, Boffa Miskell Limited, June 2006;
- Peacocke Area Structure Plan Roading, Maunsell Aecom Limited, June 2007;
- Cultural Evaluation Report: Assessment of Tangata Whenua Historical and Cultural Sites in the Peacockes Area, February 2006, Nga Mana Toopu O Kirikiriroa;
- CityScope, July 2006, Hamilton City Council;
- Building a Vibrant Hamilton; Council’s 2006-16 Long Term Plan, Hamilton City Council;
- Peacocke Area Ecological Assessment, April 2006, Hamilton City Council;
ATTACHMENTS