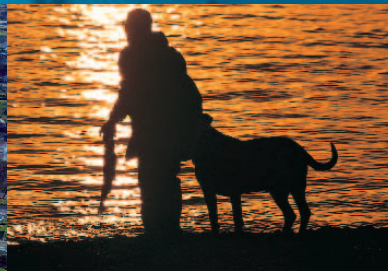


2004
Taupo Urban
Structure Plan



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Contents

1	INTRODUCTION	6
1.1	Overview	6
	Diagram 1 - TUSP 2004 - Key Document and Process Linkages	8
1.2	Executive Summary	8
1.3	Local Government Act 2002 Compliance	9
1.3.1	Consultation	10
2	OBJECTIVES	12
2.1	Overall Objective - Establish a Sustainable Urban Growth Management Strategy for 2004 to 2054	12
2.2	Objective 1 – Manage Land-Use Dynamics	12
2.3	Objective 2 – Maintain Urban Amenity and Compact Urban Form	12
2.4	Objective 3 – Maintain a Continuity of Approach to Managing Urban Growth	13
2.5	Objective 4 – Provide a Strategic Link to Other Key Documents and Processes	13
2.6	Objective 5 – Provide an Implementation Framework	14
3	BACKGROUND	15
3.1	Background	15
3.2	Taupo Town Urban Structure Plan 2001	15
3.3	Taupo Town Urban Structure Plan 2001 – Growth Management Strategy	16
3.4	Relationship between Taupo Town Urban Structure Plan 2001 and Taupo Urban Structure Plan 2004	17
4	ANALYSIS	20
4.1	Situational Analysis	20
4.1.1	Taupo Land Market and Urban Amenity	20
4.1.1.1	Taupo Land Market	20
4.1.1.2	Taupo Urban Amenity	21
4.1.1.3	Summary	24
4.1.2	Urban Form	25
4.1.2.1	Summary	26
4.1.3	Role of Key Infrastructure	26
4.1.3.1	Eastern Taupo Arterial and Western Arterials	26
4.1.3.2	Public Transport Infrastructure	27
4.1.3.3	Taupo Airport	28
4.1.3.4	Summary	29
4.2	Growth Constraints	30
4.2.1	Geothermal Resource	30
4.2.1.1	Summary	32
4.2.2	Lake Taupo	33
4.2.2.1	Summary	35
4.2.3	Landcorp Land, Department of Conservation, and Maori Land	35
4.2.3.1	Landcorp Land	36

4.2.3.2	Department of Conservation Land	36
4.2.3.3	Maori Land	37
4.2.3.4	Summary	38
5	LAND DEMAND AND SUPPLY	39
5.1	Population Projections	39
	Table 1 - Population Projections for Taupo Urban Area* 2001 - 2021	40
5.1.1	Highlights	40
5.1.1.1	Summary	40
5.2	Occupied and Unoccupied Dwellings	41
	Table 2 - Occupied and Unoccupied Dwellings in Taupo Urban Area* 1991, 1996 and 2001	41
5.2.1	Highlights	42
5.2.1.1	Summary	42
5.3	Building Activity	42
	Table 3 - Building Consents* for Taupo Urban Area** 1993 - 2002	43
5.3.1	Highlights	43
5.3.1.1	Summary	44
5.4	Land Demand Assumptions	45
5.4.1.1	Summary	45
5.5	Land Supply Assumptions	46
	Table 4 - Greenfields Areas Available for Urban Growth 2004-2024	46
	Table 5 - Anticipated Residential Development Activity 2004-2024	47
5.5.1.1	Summary	47
5.6	Technical Notes	48
6	KEY DOCUMENTS AND PROCESSES	50
	Diagram 1 - TUSP 2004 - Key Document and Process Linkages	50
6.1	Proposed Taupo District Plan	50
6.1.1	Summary	52
6.2	Taupo District Long-Term Council Community Plan	52
6.2.1	Summary	53
6.3	Non-Taupo District Council Documents	53
6.3.1	Waikato Regional Policy Statement and Waikato Proposed Regional Plan	53
6.3.1.1	Summary	55
7	SUSTAINABLE URBAN GROWTH MANAGEMENT STRATEGY 2004	56
7.1	Future Urban Growth Concepts	56
7.1.1	To 2024	57
7.1.2	From 2024 to 2054	57
7.1.3	From 2004 to 2054	57
7.2	Sustainable Urban Growth Management Recommendations	57
7.2.1	Coordinate Land-Use and Key Infrastructure	57
7.2.2	Target and Prioritise Areas for Urban Growth	58
7.2.3	Establish the ETA as an Urban Fence	58
7.2.4	Establish ETA Transport and Business Land Hubs	58
7.2.5	Continue to Provide for the Operation and Expansion of Taupo Airport	58
7.2.6	Investigate Public Transport Infrastructure Options	59
7.2.7	Investigate Intensification Options	59
7.2.8	Investigate Options for “Large-Format” Retail	59

7.2.9	Undertake a Business Land Development Strategy	59
7.2.10	Undertake a Rural-Residential Development Strategy	59
7.2.11	Investigate the Issue of Housing Affordability	59
7.2.12	Link TUSP 2004 Outcomes with Other Structure Plans	60
7.2.13	Geothermal Energy Sector to Provide Advance Information on Future Development Plans	60
7.2.14	Establish a Transparent Geothermal Resource Monitoring Framework	60
7.2.15	Advance a Collaborative Approach to the Management of the Land-Use and Resource-Use Dynamics between Geothermal Resource Development and Urban Growth	60
7.2.16	Initiate Future Variations to the Proposed Taupo District Plan	60
7.2.17	Link TUSP 2004 Outcomes to the Long-Term Council Community Plan	60
7.2.18	Identify the “Liveability” of the Taupo Urban Area	61
7.2.19	Rationalise and Standardise Development Activity Data Management System	61
8	IMPLEMENTATION FRAMEWORK	62
8.1	The “Action Plan”	62
8.2	The Toolbox of Techniques	62
8.3	Critical Actions	62
	Action 1 - Implement the Sustainable Urban Growth Management Strategy 2004	63
	Action 2 - Construct the Eastern Taupo Arterial	64
	Action 3 - Undertake Neighbourhood Specific Structure Planning for Targetted Growth Areas	65
	Action 4 - Provide Key Infrastructure that Encourages Recommended Land-Use Patterns	66
	Action 5 - Ensure that there is a Design Solution for Reverse Sensitivity Conflicts between Urban Growth and Geothermal Resource Development	67
	Action 6 - Monitor Adverse Effects of Geothermal Resource Development on the Taupo Urban Area	68
	Action 7 - Establish Formal Procedures for Monitoring the Effectiveness of TUSP 2004 Outcomes	69
	Action 8 - Undertake and Maintain Risk Management	70
	GLOSSARY	71
	REFERENCES	72

Appendices

Map 2 - Wairakei / Tauhara Geothermal Field

Map 3 - Land Tenure

Map 4 - Census 2001 Area Units

1 Introduction

1.1 Overview

Taupo faces a nationally unique set of constraints on its urban growth, which if not effectively addressed have the potential to result in unsustainable growth management outcomes for both Taupo District Council (Council) and the community. Council developed the current Taupo Town Urban Structure Plan 2001 (Structure Plan 2001) in recognition of these challenges, particularly the need to allocate anticipated growth and identify Taupo's future urban form.

However, significant changes in the past two years since the publication of that document have necessitated a review of Council's approach to managing the growth of the Taupo Urban Area:¹

◆ Land Demand

The continued demand for residential land, as well as the increasing demand for business land.

◆ Pattern and Distribution of Development

Changes in the pattern and distribution of urban and rural-residential development. In particular:

- intensification of Taupo lakefront / lakeview development
- intensification of Kinloch as a satellite settlement to Taupo
- proliferation of rural-residential development on the fringes of Taupo and between Kinloch and Taupo.

◆ Designation of Key Infrastructure

The formal designation of the Eastern Taupo Arterial (ETA) in early 2003.

◆ Geothermal Resource

Increased knowledge regarding the utilisation of the Wairakei-Tauhara geothermal system and associated effects such as land subsidence.

Increased uncertainties regarding future New Zealand energy supplies associated with two "dry years" since 2001, and the redetermination downwards of the size of the Maui Gas Field, highlighting the long-term importance of geothermal energy resources in the District.

◆ Lake Taupo

The commencement of the 2020 Taupo-nui-a-Tia project and Protecting Lake Taupo Strategy to safeguard the nationally significant and treasured qualities of Lake Taupo.

¹ The Taupo Urban Area is defined by the Census 2001 Area Units demarcated in "Map 4 – Census 2001 Area Units" to the Taupo Urban Structure Plan 2004. See **Section 5.6** for further discussion.

◆ **Resource Management Frameworks**

Council's decisions on submissions in early 2003, and the ongoing process to resolve appeals to the Proposed Taupo District Plan.

Environment Waikato's (EW) proposed changes to the Geothermal Section of the Waikato Regional Policy Statement and proposed variations to the Proposed Waikato Regional Plan.

◆ **Local Government Act 2002**

Changes in Council's operating climate with the advent of the Local Government Act 2002 (LGA 2002), particularly the requirement to identify community outcomes in the Long-Term Council Community Plan (LTCCP).

◆ **Census of Population and Dwellings 2001**

The completion of Census 2001 Statistics New Zealand (Statistics NZ) forecasts in late 2002.

Council wishes to respond appropriately to these changes and has therefore commissioned the Taupo Urban Structure Plan 2004 (TUSP 2004) to carry forward and expand the Urban Growth Management Strategy contained in the Structure Plan 2001.

The TUSP 2004 is broad-based growth management strategy designed to identify the growth management issues in the Taupo Urban Area, and tackle them in accordance with the Long-Term Council Community Plan Community Outcomes and the environmental bottom lines set in the Proposed Taupo District Plan.

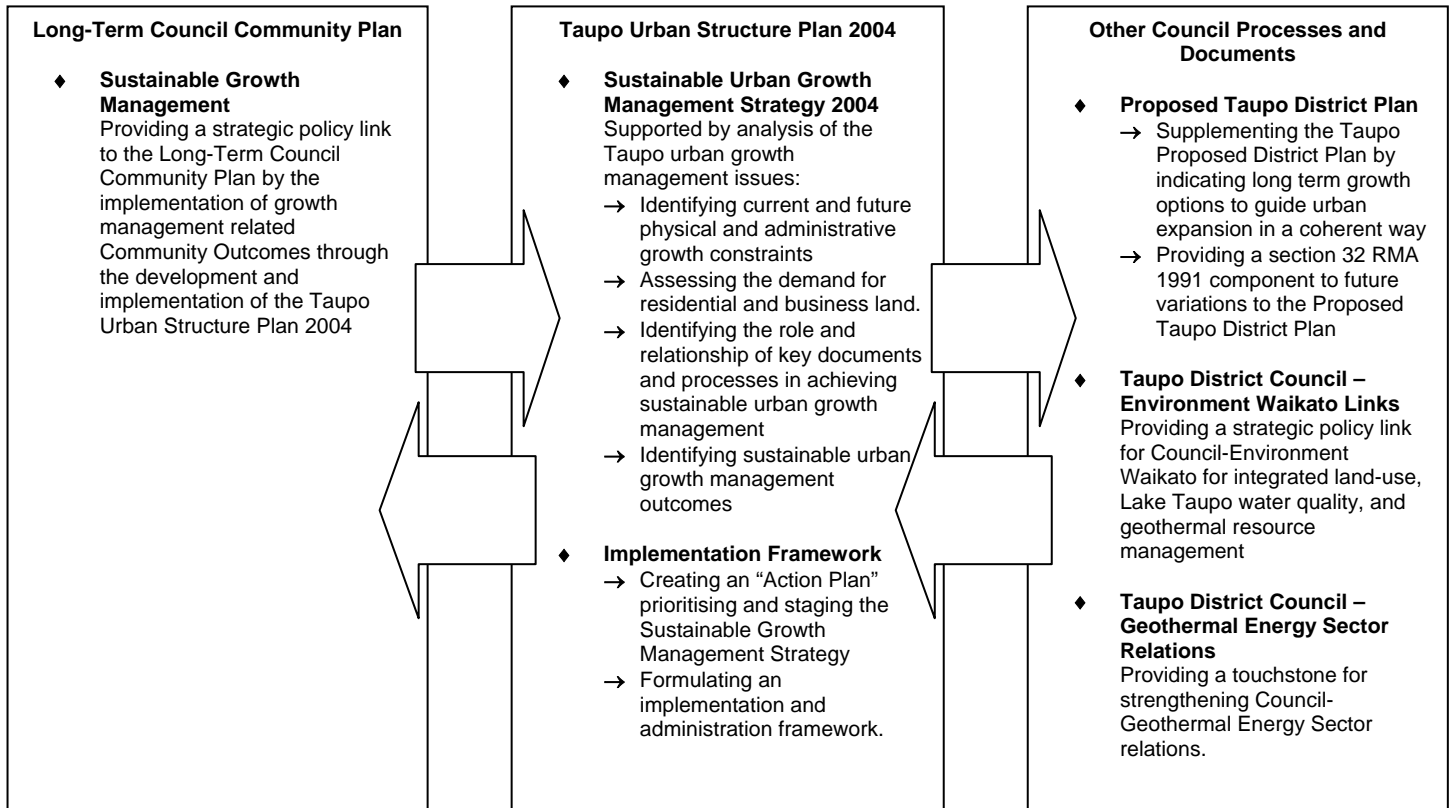
The primary focus of the TUSP 2004 is to provide a high-level 20 to 50 year sustainable urban growth management strategy which identifies sustainable urban growth management outcomes for Taupo yet at the same time establishes an implementation framework to ensure that the key steps towards achieving these outcomes are taken.

The TUSP 2004 maintains the key policy in the Proposed Taupo District Plan with regards to growth management, namely that structure plans supplement that document "to indicate long term growth options to guide urban expansion in a coherent way".²

Diagram 1 below provides a conceptual overview of the TUSP 2004 and shows how the Sustainable Urban Growth Management Strategy it contains links to other key Council documents and processes.

²Issue 6 – Growth Management, Section 2.3, Significant Resource Management Issues, Proposed Taupo District Plan.

Diagram 1 – Taupo Urban Structure Plan 2004 – Key Document and Process Linkages



1.2 Executive Summary

The TUSP 2004 has the following framework:

- ◆ **Section 2 – Objectives**
Sets out the objectives which will guide the analysis, and shape the outcomes of the TUSP 2004.
- ◆ **Section 3 – Background**
Provides the background context for the TUSP 2004, in particular discussing the relationship between the Structure Plan 2001 and the TUSP 2004.
- ◆ **Section 4 – Analysis**
Canvasses the main issues relating to the urban growth of Taupo, in particular providing an analysis of current and future physical and administrative growth constraints:

- **Taupo Land Market**
The dynamics of the Taupo land market and its impact on the urban growth of Taupo.
 - **Urban Form and Infrastructure**
The role of existing urban form and key infrastructure in coordinating the pattern and distribution of Taupo's urban development.
 - **Geothermal Resource**
The relationship between Taupo's urban development and the regionally significant geothermal resource.
 - **Lake Taupo**
The potential impact of the 2020 Taupo-nui-a-Tia project and Protecting Lake Taupo Strategy to safeguard Lake Taupo, on Taupo's urban growth.
 - **Landcorp Land and Maori Land**
The land development issues regarding Landcorp administered land and Maori land held in Maori Trusts.
- ◆ **Section 5 – Land Demand**
Assesses the supply and demand for urban residential and business land in Taupo, taking account of building consent, dwelling, and population data.
 - ◆ **Section 6 – Key Documents and Processes**
Discusses the role and relationships between key Council documents and processes in achieving sustainable urban growth. In particular, the relationship between these key documents and processes and the TUSP 2004.
 - ◆ **Section 7 – Sustainable Urban Growth Management Strategy 2004**
Presents the key ideas that emerge from previous sections of the document as a physical layout of urban growth and urban growth management recommendations, and puts them forward as a Sustainable Urban Growth Management Strategy 2004 for Taupo.
 - ◆ **Section 8 – Implementation Framework**
Sets out an “Action Plan” for the Sustainable Urban Growth Management Strategy 2004, formulating an implementation and administration framework which outlines and priorities the steps that Council needs to take in order to achieve that strategy.

1.3 Local Government Act 2002 Compliance

The TUSP 2004 is seen as a matter of significance under the Council “Policy to Determine Significance”, Part 5.4, in the 2003-2004 Annual Plan given that:

- (i) [The TUSP 2004] affects all or a large portion of the community in a way that is not inconsequential.
- (ii) [The TUSP 2004] impacts or consequences on the affected persons will be substantial.
- (iii) [The TUSP 2004] has a history of wide public interest in the Taupo District community...

As such relevant provisions of the LGA 2002 will to a certain extent guide the analysis in the TUSP 2004, and compliance with the Act will be checked against Council's standard procedures. At a general level in the TUSP 2004 this entails:

◆ **Identifying Options**

Identifying all reasonably practicable options for the achievement of sustainable urban growth.

◆ **Assessing Options**

Assessing in relation to these identified options:

- Benefits and costs.
- Promotion of community outcomes.
- Statutory responsibilities of Council.
- Impact on Maori culture and traditions.
- Any other relevant matters in relation to these identified options.

Consultation with the community and stakeholders has been vital in the shaping of the final document, and has identified many of the aspirations the community holds for the growth of the Taupo Urban Area.

1.3.1 Consultation

Any consultation that Council undertakes needs to be conducted in accordance with section 82 of the LGA 2002. Section 82 sets out the following principles for Councils to follow:

- ◆ Provide persons who may be affected by, or interested in, a decision, with reasonable access to relevant information in a manner and format appropriate to their preferences and needs.
- ◆ Encourage persons who may be affected by, or interested in, a decision, to present their views.
- ◆ Provide clear information to persons who present their views about the purpose of the consultation and the scope of the decisions to be taken.
- ◆ Give persons who wish to present their views a reasonable opportunity to do so, in a manner and format appropriate to their preferences and needs.
- ◆ Receive views with an open mind and give them due consideration.

- ◆ Provide persons presenting their views with information on the decisions made and the reasons for them.

Consultation in accordance with the LGA 2002 on the TUSP 2004 has taken place along the following timeline:

Draft TUSP Endorsed by Council	September 2003
Draft TUSP Distributed to Iwi / Hapu	September 2003
Hui	September-October 2003
Summary of Comments (from Iwi/Hapu) to Council	October 2003
Public Notification	29 October 2003
Submissions Close	28 November 2003
Hearings	10-12 December 2003
Deliberations	February 2004
Draft TUSP Revised	March 2004
Finalised TUSP 2004 Adopted by Council	March 2004

2 Objectives

The following high-level objectives have shaped the development of the growth management strategy which emerged from the TUSP 2004. They are in particular, implemented in the Sustainable Urban Growth Management Strategy 2004 outlined in **Section 7**, and the Implementation Framework set out in **Section 8**.

The objectives of the TUSP 2004 can be summarised as follows:

2.1 Overall Objective - Establish a Sustainable Urban Growth Management Strategy for 2004 to 2054

To put in place a Sustainable Urban Growth Management Strategy for the Taupo Urban Area specific from 2004 to 2024, and indicative from 2024 to 2054 that:

- a) **Manages Land-Use Dynamics**
- b) **Maintains Urban Amenity and Compact Urban Form**
- c) **Maintains a Continuity of Approach to Urban Growth Management**
- d) **Provides a Strategic Link to Council's Key Documents and Processes**
- e) **Provides an Implementation Framework for Managing Urban Growth**

2.2 Objective 1 – Manage Land-Use Dynamics

a) **Manage the Land-Use Dynamics between Geothermal Resource Development and Urban Growth**

To manage the land-use dynamics between the development of the geothermal resource and the urban growth of Taupo, having particular regard to reverse sensitivity issues.

b) **Manage the Land-use Dynamics between the Protection of Lake Taupo and Urban Growth**

To manage the land-use dynamics between the protection of Lake Taupo and the urban growth of Taupo.

c) **Manage Land Demand**

To manage the demand for residential, business, and recreational land.

2.3 Objective 2 – Maintain Urban Amenity and Compact Urban Form

a) **Maintain Urban Amenity**

To maintain and enhance urban amenity in accordance with the environmental baseline set by the Proposed Taupo District Plan.

b) Maintain Existing Compact Urban Form and Coordinate Urban Growth with Infrastructure

To provide certainty of future urban form based on maintaining the existing compact urban form of Taupo.

To utilise existing and proposed bulk infrastructure, particularly the development of the ETA and Taupo Airport (as per the Proposed Taupo District Plan and Taupo Airport Master Plan), to coordinate the pattern and distribution of urban growth.

c) Support and Complement Development of Taupo Town Centre

To support and complement the continued development of Taupo Town Centre as the business and cultural heart of Taupo District as per the Taupo Town Centre Structure Plan 2004.

2.4 Objective 3 – Maintain a Continuity of Approach to Managing Urban Growth

a) Carry Forward Structure Plan 2001 Outcomes

To carry forward and further develop the Urban Growth Management Strategy for Taupo contained in the Structure Plan 2001.

b) Supplement the Proposed Taupo District Plan

To supplement the Taupo Proposed District Plan by indicating long term growth options to guide urban expansion in a coherent way, and provide a section 32 RMA 1991 component to future variations to that document.

c) Implement Long-Term Council Community Plan Community Outcomes

To provide a strategic policy link to the Long-Term Council Community Plan by the implementation of growth management related Community Outcomes through the implementation of the Taupo Urban Structure Plan 2004

2.5 Objective 4 – Provide a Strategic Link to Other Key Documents and Processes

a) Taupo District Council – Environment Waikato Links

To provide a strategic policy link for both Council and Environment Waikato for the integrated resource management of land-use, Lake Taupo water quality, and the geothermal resource.

b) Taupo District Council – Geothermal Energy Sector Relations

To provide a touchstone for strengthening Council-Geothermal Energy Sector relations.

2.6 Objective 5 – Provide an Implementation Framework

a) Set out an “Action Plan”

To set out an “Action Plan” for the Sustainable Urban Growth Management Strategy 2004 which formulates an implementation and administration framework outlining and prioritising the key steps Council needs to take in order to achieve that strategy.

3 Background

3.1 Background

Key background to the TUSP 2004 is a discussion of the Structure Plan 2001.

The TUSP 2004 supports the Urban Growth Management Strategy in the Structure Plan 2001, but updates that document and provides an appropriate response to the changes since its promulgation (see **Sections 4 to 6** for further detail).

3.2 Taupo Town Urban Structure Plan 2001

The Structure Plan 2001 was a high level document commissioned by Council to:

- ◆ **Assess Land Demand**
Assess the demand for residential land in Taupo Town over the next 20 years, taking account of subdivision consent, building consent, and demographic trends.
- ◆ **Develop Urban Growth Options**
Develop urban growth options, taking into account land development constraints, the dynamics of the Taupo land market, and the sustainability of urban form.
- ◆ **Assess Infrastructural Requirements**
Estimate both the timing and costs of servicing the identified urban growth options.
- ◆ **Provide Growth Management Policy Linkages**
Implement the urban growth management recommendations through Council's other administrative, policy, and statutory documents, in particular through the review and alignment of the Strategic Plan, Long-Term Financial Strategy, the Annual Plan, Asset Management Plans, Funding Policy, and the Proposed District Plan.

The document represented the culmination of previous Council reports spanning from the late 1990s that refer to the urban development issues of the District but were not in themselves specifically focussed on the urban growth management issues that the Structure Plan 2001 tackled (see **Section 5** of that document for further discussion).

The primary focus of the Structure Plan 2001 was on urban growth constraints and land demand.

The following growth management issues were taken into consideration:

- ◆ Urban form
- ◆ The pattern and distribution of urban development

- ◆ The timing and funding of infrastructure

The urban growth constraints were identified as:

- ◆ Maori land
- ◆ Landcorp land marked for potential Treaty settlements
- ◆ The geothermal resource and Council's relations with Contact Energy
- ◆ Lake Taupo and the Waikato River

Land demand was discussed and linked in particular to demographic trends, drawing on a mix of Council and Statistics NZ data. The most influential factors were identified as:

- ◆ Building activity
- ◆ Household occupancy
- ◆ Population growth
- ◆ Migration
- ◆ Age structure

The assumption was that dwelling creation and occupancy are the key drivers in estimating future land demand, rather than population growth alone.

Factored into this analysis were conditions of scarcity. Large monopoly holdings by two separate developers were identified in the west and north of Taupo Town Centre, and accounted for a large amount of the land available for urban development. Council considered its role here was to free-up the land encumbrances over land it owned in the east, to increase the supply of urban land, and provide choice in the urban land market.

The overall conclusion drawn was the urban growth constraints, combined with projected land demand rates, the continuing pattern and distribution of development, and the dynamics of the urban land market, would rapidly exhaust the available urban landbank, and result in unsustainable growth management outcomes for Council and the community.

3.3 Taupo Town Urban Structure Plan 2001 – Urban Growth Management Strategy

In response to these challenges the Structure Plan 2001 put forward a three-pronged Urban Growth Management Strategy (Central-North – South-East – West of Taupo Town Centre) aimed at guaranteeing secure land supply, market choice, and sustainable urban growth for Taupo into the future.

The Structure Plan also recommended the release of land encumbrances over land Council owned to the south-east, to increase the supply of land, and restore balance to the land market.

Significantly the Structure Plan 2001 finally assessed these growth areas in terms of servicing and infrastructure costs for the provision of roading, water, and wastewater. Essentially infill and those greenfields areas closest to Taupo Town Centre were considered more cost effective to service. Servicing greenfields development in the west (Acacia Bay) was considerably more costly and detrimental to existing urban form, making greenfields

development in the south-east a much more viable financial and spatial option.

The three-pronged Urban Growth Management Strategy in the Structure Plan 2001 therefore targeted the allocation of urban growth to the following areas:

- ◆ Long-term infill (1-5 years) in Central-North 90%, South-East 10% – accounting for 25% of total urban growth over 20 years.
- ◆ Long-term growth (10-20 years) in the West and South-East – 75% of total urban growth over 20 years.

3.4 Relationship between Taupo Town Urban Structure Plan 2001 and Taupo Urban Structure Plan 2004

The TUSP 2004 is intended to carry forward and update the Urban Growth Management Strategy contained in the Structure Plan 2001. It therefore supports:

- ◆ **Targeted Growth Areas**
The retention of the 3 general areas targeted for growth, Central-North, South-East, and West of Taupo Town Centre.
- ◆ **Servicing and Infrastructure Costing**
The servicing and infrastructure costing and assumptions for the 3 general areas targeted for growth, Central-North, South-East, and West of Taupo Town Centre.
- ◆ **Growth Rate**
The growth rate of 180 new dwellings per annum as a base assumption. This is set against the background of a current misalignment between population growth forecasts, and unoccupied dwelling and dwelling creation rates which the implementation framework of the TUSP 2004 seeks to resolve.

In contrast to the Structure Plan 2001, the TUSP 2004 does not address servicing and infrastructure issues of growth allocations. The community's vision for Taupo's urban growth and the levels of service and infrastructure to be provided are seen as part of the LTCCP community outcomes process. In addition servicing and infrastructure costing for targeted growth areas is envisaged as sitting at a level of detail down from that in the TUSP 2004, and will be addressed through neighbourhood structure planning exercises prior to these growth areas coming on-stream.

Consequently there has been no change to the basis of the servicing and cost assumptions in the Structure Plan 2001 until they are reworked, possibly as part of the LTCCP process – they are accepted as a given.

However, the TUSP 2004 seeks to address the following areas which the Structure Plan 2001 does not specifically address:

- ◆ **Land Demand**
The increasing demand for business land, as well as the continued demand for residential land.

- ◆ **Changes in Pattern and Distribution of Development**
Changes in the pattern and distribution of urban and rural-residential development. Particularly:
 - intensification of premium lakefront / lakeview development
 - intensification of Kinloch as a satellite settlement to Taupo
 - proliferation of rural-residential development on the fringes of Taupo and between Kinloch and Taupo.

- ◆ **Designation and Development of Key Infrastructure**
The formal designation of the Eastern Taupo Arterial (ETA) in early 2003, and the development / expansion of Taupo Airport and the potential role of both in influencing urban development.

- ◆ **Geothermal Resource**
Increased knowledge regarding the utilisation of the Wairakei-Tauhara geothermal system and associated effects such as land subsidence. More specifically Council's need to further strengthen its relationship with the geothermal energy sector in order to manage the land-use dynamics between urban growth and the anticipated development of the geothermal resource, and avoid potential reverse sensitivity conflicts.

Increased uncertainties regarding future New Zealand energy supplies associated with two "dry years" since 2001, and the redetermination downwards of the size of the Maui Gas Field, highlighting the long-term importance of geothermal energy resources in the District.

- ◆ **Lake Taupo**
The commencement of the 2020 Taupo-nui-a-Tia project, a strategy aimed at protecting the qualities of Lake Taupo, and Environment Waikato's Protecting Lake Taupo Strategy, and the impact of these documents and processes on managing Taupo's urban growth.

- ◆ **Resource Management Frameworks**
The need to strengthen the relationship between urban structure planning and the Proposed District Plan. This includes the possibility of Council using the TUSP 2004 as a section 32 RMA 1991 component to appropriate variations to the Proposed Taupo District Plan in order to ensure that the Sustainable Urban Growth Management Strategy contained in the TUSP 2004 is given effect in that document through appropriate objectives, policies, and methods.

In addition this would extend to the need for a joint approach to be taken by Council, the geothermal energy sector, and EW to the integrated management of the geothermal resource, in order to ensure that geothermal resource regulation and land-use regulation is more closely

coordinated to address the unique urban growth situation that exists in Taupo.

◆ **Local Government Act 2002**

Changes in Council's operating climate with the advent of the LGA 2002, particularly the requirement to identify community outcomes in the inaugural LTCCP. The role of the TUSP 2004 here is seen as providing a strategic policy link for the sustainable management of urban growth.

In addition once the TUSP 2004 has been consulted on with the community, it is envisaged that the impact of the Sustainable Urban Growth Management Strategy 2004 on the funding and financial policies in the LTCCP would need to be assessed by Council, and the LTCCP aligned accordingly.

◆ **Census of Population and Dwellings 2001**

The completion of the Statistics NZ Census 2001 forecasts in late 2002 and the bearing that this information has on urban growth management.

4 Analysis

This section canvasses the main issues relating to the urban growth of Taupo, beginning with a situational analysis which discusses changes in the Taupo land market and the potential effect of these changes on urban form and infrastructure. The focus then moves to providing an account of physical and administrative growth constraints which limit available growth options.

4.1 Situational Analysis

A number of significant changes in the Taupo land market have occurred since the publication of the Structure Plan 2001 which have implications for Council's approach to managing Taupo's urban growth. In particular the distribution and pattern of development being established by the Taupo land market poses a challenge to maintaining sustainable urban form.

4.1.1 Taupo Land Market and Urban Amenity

4.1.1.1 Taupo Land Market

Taupo has emerged as a recognised destination for property investment funds. The growth of tourism and urban expansion are two major catalysts for this. This potential has resulted in very strong investor interest - not only from within New Zealand but also overseas.

While the population growth rates for Taupo are forecast to grow in excess of 10% over the next twenty years (see **Section 5** for further detail), the District's real strength lies in very high visitor numbers. As at 2003, Taupo attracts around 725,000 visitors annually of which almost 80% are domestic visitors. Taupo has, in reinforcing its position as a major tourist destination, earned close to \$137 million a year from direct visitor spending.

In terms of the Taupo land market it is the higher priced residential property that is generally attracting strong interest from buyers from other larger proximate North Island centres, in particular Auckland, Hamilton, and Tauranga. This has also had a flow-on effect in substantially improving the quality of homes that have been built over the last five years. Taupo is also beginning to benefit from a greater range of residential development.

As elsewhere in New Zealand it is properties with water views and water access that are in high demand. Lake-edge properties in particular are keenly sought after. Between Acacia Bay and Five-Mile Bay there are around 270 lakefront properties – all with varying degrees of accessibility to the water. In the last few years some waterfront homes have sold in excess of \$1 million. This suggests that land values for the top lakeside properties are now in excess of three-quarters of a million dollars, and in some cases over the million dollar mark.

Demand for quality apartments and terraced housing is also very strong, particularly from out-of-town buyers familiar with more intensive residential

development. However, there is currently a shortfall in supply of this kind of residential development. The main constraint appears to be a lack of suitably “zoned” land for quality apartment development - particularly for sites with lake views. This shortage is putting pressure on well-located “older” motels to be either converted / upgraded into separately owned units or demolished to make way for a new apartment development.

As an alternative, other high profile locations have emerged such as Kinloch and the Eastern Lakeshore area which have also benefited from increases in value arising from ongoing demand. With the commencement of structure planning exercises for Kinloch in 2003, the future development of this area will become more certain. It is likely to attract a greater share of urban growth. Kinloch’s close proximity to the lake will continue to act as a growth stimulant. Unless greater opportunities are provided within the Taupo urban land market satellite development such as that occurring in Kinloch will continue as a typical reaction to a constrained land market.

Although most activity has occurred at the mid to high end of the Taupo land market this has had the effect of lifting land value and capital value across the board. Consequentially there has been a rise in rents across Taupo, and the affordability of housing has emerged as an issue of concern.

In terms of business development, most activity is occurring in the CBD where there is a trend towards smaller sized “boutique” premises as part of a developing tourist and café culture. This trend is likely to be reinforced by the outcomes of the Taupo Town Centre Structure Plan which aspires to reposition and revitalise the Town Centre. The area is being repositioned from an existing service centre to an attractive, high quality, year-round destination for residents and visitors, and revitalised by a focus on commercial (especially retail) development in a central, compact, and pedestrian-friendly area.

The removal of the State Highway once the ETA has been constructed will further assist the development of town amenity. International experience over many years reinforces this view.

As such there is a shortage of prime retail spaces, and older and larger premises in good locations are now targets for redevelopment. Also targeted for redevelopment are commercial properties where site coverage has been under-utilised.

Finally, the new direction of development and insufficient space in the Taupo Town Centre combined with increased tourism and urban expansion has contributed to growing pressure from “Large-Format” retail to locate outside of the CBD. Typically such development proposals are in retail-park form on greenfields sites alongside main transport routes. This is also a reflection of national and international retail trends.

4.1.1.2 Taupo Urban Amenity

The Proposed Taupo District Plan sets the minimum environmental standards regarding the amenity of the Taupo Urban Area, and the issue is outlined in “Issue 1 – Amenity and Character”, Section 2.3 “Significant Resource Management Issues”, of that document.

Within the Proposed Taupo District Plan, the Environments of the District have been classified as being Residential, Rural, Town Centre, and Industrial. The Taupo Urban Area is encompassed by all of these specified Environments. The Proposed Taupo District Plan contributes directly to the amenity of these Environments through the establishment of performance standards, such as building setbacks, noise standards, and maximum height.

The role of the Proposed Taupo District Plan therefore is to ensure the maintenance, and promote the enhancement of the character, amenity, and utility of these Environments. This is through ensuring that any adverse effect of an activity on the identified character, amenity, and utility of the particular Environment is avoided, remedied, or mitigated. Adverse effects can arise through the location of activities within an inappropriate Environment, or through conflict at the interface of Environments with different levels of accepted effects.

In addition to these environmental standards, the community develops itself, creating an environment to reflect its own individual character. Therefore it is essential to recognise that development of this community and character is not static, but instead is part of a dynamic and continuous process, in which the Proposed Taupo District Plan is involved.

The TUSP 2004 has not directly tackled the qualitative aspects of growth management, which are seen as the next step in the implementation of the growth strategy which emerges in the document. In particular, Council's recently commissioned Recreation, Leisure, and Reserves Strategy will address the qualitative aspects of growth relating to the provision and networking of open space, reserves, recreational areas, walkways, cycleways, and bridleways.

However, given the continuing high levels of development activity in Taupo, Council should take a pro-active approach by leading an annual development planning forum with key agencies, stakeholders, and the public, in order to be more responsive to changes in urban development, the concerns and needs of the community, the direction of future development, and positioning of Taupo as a unique national and international destination.

The "liveability" of the Taupo Urban Area arose as perhaps the single most important issue that the community raised during the public consultation and submission process for the TUSP 2004. Significant concerns, needs, and expectations were raised by the community relating to the continuing high levels of development activity in Taupo, the direction of future development, and the positioning of Taupo as a unique national and international destination. These included:

- ◆ The need to manage (or even contain or restrict) urban growth, in order to safeguard the existing levels of natural and urban amenity in the Taupo Urban Area and surrounding environs.
- ◆ The impacts of the high levels of development activity on protecting Lake Taupo.
- ◆ The need for an integrated network of open space, reserves, recreational areas, walkways, cycleways, and bridleways. This included the need for such networks to have good linkages to facilities which cater to the

cultural, recreational, educational, and early childhood needs of the community.

- ◆ Intensification along Taupo lakefront, areas with views of Lake Taupo, and Taupo Town Centre.
- ◆ The need for well-designed urban public spaces, and private and public buildings.
- ◆ The impacts of the anticipated arrival of “Large-Format” retail, including the impacts this may have on the Taupo Town Centre.
- ◆ The capacity for infrastructure (both community facilities and network infrastructure) to cope with the growth of Taupo Urban Area, particularly the need for developers to pay their fair share towards growth-related infrastructure costs.

At a national level the Ministry for the Environment’s “Live, Work, and Play” publication (June 2002) provides a clear set of tools, techniques, and processes for helping maintain and create “liveable” urban environments. That document defines a “liveable” urban environment as a place that is good to live, work, and play – a place that meets the needs and expectations of the people that live there.

Council can help maintain and create a “liveable” urban environment in the Taupo Urban Area by developing well-planned and coordinated strategies to achieve the things the community wants. In this respect the TUSP 2004 is merely one of these strategic documents in maintaining and creating a “liveable” urban environment, alongside:

- ◆ Long-Term Council Community Plan
- ◆ Proposed Taupo District Plan
- ◆ Other Structure Plans (for example, Taupo Town Centre, Kinloch, Rural West)
- ◆ Leisure, Recreation and Reserves Strategy
- ◆ Cycling Strategy (Taupo – A Cycle Friendly Town)
- ◆ Taupo Airport Master Plan
- ◆ Asset Management Plans

The approach that has been taken at a sub-regional and regional level in “SmartGrowth” (2004), the growth management strategy for the Western Bay of Plenty subregion to 2050, and at a district level, “Tomorrow’s Queenstown” (2002), Queenstown Lakes District Council’s identification of its community’s vision for growth management to 2020, offer Council, comprehensive, successful, and working models to learn from.

Beyond the outstanding natural features and landscape of Taupo which are well renowned and recognised, the quality of urban living or the “liveability” of the Taupo Urban Area becomes vitally important. Initiatives to identify the qualities of the character and amenity of the Taupo Urban Area – those qualities that make Taupo a special place to visit, live, work, and play in, should include the identification of attributes such as:

- ◆ **“Sense of Place”**
- ◆ **Urban Design**
- ◆ **Urban Landscape**
- ◆ **Character of Neighbourhoods**

- ◆ **Urban Density (including Population and Housing Density)**
- ◆ **Visual Amenity and Views**
- ◆ **Open Space, Reserves, and Recreational Areas³**
- ◆ **Educational Land and Facilities**
- ◆ **Walkways, Cycleways,⁴ and Bridleways**
- ◆ **Public Transport Infrastructure (including Non-Road)**
- ◆ **Cultural and Heritage Features**

Such exercises are part and parcel of continued development of Taupo Town Centre as the business and cultural heart of Taupo.

The qualities of Taupo's urban environment are as important as those of its natural environment. Both need to complement one another in order to continue to assert and maintain Taupo's position as a unique national and international destination.

4.1.1.3 Summary

In summary the key issues regarding the Taupo land market and urban amenity are as follows:

- ◆ **Substantial Increases in Land Value and Capital Value**
 - Substantial rises in land prices across Taupo but particularly over sites along Taupo lakefront, along ridgelines, and other areas with views of Lake Taupo and the Central Plateau.
 - Increases in more intensive infill residential development along Taupo lakefront.
 - Improvement in the overall quality of residential development across Taupo.
 - An overall lift in land value and capital value across Taupo
 - Consequential rent increases across Taupo, with the affordability of housing emerging as an issue of concern.
- ◆ **Emergence of Alternatives**
 - Emergence of alternative high profile locations such as Kinloch and the Eastern Lakeshore area.
 - Significant residential development activity in Kinloch.
 - Considerable increases in rural-residential development on the urban fringes of Taupo and between Taupo and Kinloch.
- ◆ **Changes in the Business Sector**
 - Revitalisation of Taupo Town Centre.
 - Move towards more "boutique" style café and retail premises in the CBD.
 - Redevelopment of older and larger retail premises to cater for smaller format commercial development as well as commercial properties where site coverage has been under-utilised.
 - Growing pressure of "Large-Format" retail to establish along main transport routes outside Taupo Town Centre because of insufficient space and a change in the character and amenity of the CBD.

³ As the development of the Taupo Recreation, Leisure, and Reserves Strategy.

⁴ As per the Taupo District Cycling Strategy "Taupo – A Cycle Friendly Town".

◆ **Urban Amenity and “Liveability”**

- The “liveability” of the Taupo Urban Area arose as perhaps the single most important issue that the community raised during the public consultation and submission process for the TUSP 2004. Significant concerns, needs, and expectations were raised by the community relating to the continuing high levels of development activity in Taupo, the direction of future development, and the positioning of Taupo as a unique national and international destination.
- Given the continuing high levels of development activity Council should lead an annual development planning forum with key agencies, stakeholders, and the public, in order to be more responsive to changes in urban development, the concerns and needs of the community, the direction of future development, and the positioning of Taupo as a national and international destination.
- This initiative should include the identification of character and amenity, the “liveability” of the Taupo Urban Area – those qualities that make Taupo a unique place to visit, live, work, and play in. This should be in close reference to Council’s Recreation, Leisure, and Reserves Strategy.
- The Ministry for the Environment’s “Live, Work, and Play” publication (June 2002), the Western Bay of Plenty SmartGrowth Strategy (2004), and Queenstown Lakes District Council’s “Tomorrow’s Queenstown” (2002), provide Council with a clear set of comprehensive and successful tools, techniques, and processes for helping maintain and create a “liveable” Taupo urban environment.

4.1.2 Urban Form

A compact urban form around Taupo Town Centre has been viewed by Council and the community in the Structure Plan 2001, the Strategic Plan, and the Taupo Town Centre Structure Plan as being ideal to sustain the existing business district and amenity, and maintain effective and efficient transport and bulk infrastructure networks.

Sparse, largely uncoordinated rural-residential development on the urban fringes of Taupo and between Taupo and Kinloch which is currently occurring makes this task difficult, particularly if left to intensify. The further development of satellite settlements such as Kinloch are likely to eventuate in demands for improved levels of service and infrastructure. Aside from associated social, cultural, economic, and environmental concerns, the financial implications to Council of such a pattern of development alone are unsustainable.

The overall effect is a fragmentation of residential development with little coordination in timing between land-use and the provision of services and infrastructure. This has the potential to lead to a lag between Council’s provision of services and infrastructure on one hand and responding to the community’s emerging needs on the other. This also makes it difficult for Council to assess whether new development is meeting the true costs of growth.

4.1.2.1 Summary

In summary the urban form issues are as follows:

◆ **Compact Urban Form**

- Maintaining a compact urban form around Taupo Town Centre is a clear aspiration of both Council and the community.
- Uncoordinated rural residential-development on the urban fringes of Taupo and the emergence of satellite centres such as Kinloch provides a challenge to maintaining compact urban form.

◆ **Timing and Funding of Infrastructure**

- Fragmentation of residential development has the potential to cause a lag between Council's provision of services and infrastructure behind the community's needs.
- Lack of coordination in the timing between land-use and the provision of services and infrastructure also makes it difficult for Council to assess whether new development is meeting the true costs of growth.

4.1.3 Role of Key Infrastructure

4.1.3.1 Eastern Taupo Arterial and Western Arterials

The formal designation of the ETA to the east of Taupo Town Centre gives more certainty to Taupo's urban form, having the potential to act as a distinct urban fence, diverting unrelated State Highway traffic from lakeside properties and the CBD, containing urban sprawl, and buffering existing and future residential areas from industrial and geothermal development activities.

The influence of the ETA on the reorientation of Taupo to its lakefront is a significant transformation representing one of the largest State Highway diversions ever undertaken in New Zealand, and reinforces Taupo's assertion of its position as a national and international destination.

Existing and proposed future arterial roads to the west of Taupo Town Centre would play a similar role to the ETA. There is growing concern in the community that the amenity and character of the west has the potential to be eroded by the sprawl of rural-residential development and the intensification of existing urban areas, particularly Acacia Bay and Kinloch.

In this context the arterial roads can act in two ways firstly, as an artery for ribbon development which follows and establishes alongside such roads (for example current residential development pursuing Mapara Road and Poihipi Road). Secondly, as an urban fence, retaining the amenity and character of the countryside to the north-west, and restricting the bulk of development to existing urban areas. However, the later initiative can only be put into effect through the development of a Council policy position in terms of distributing growth in the west between rural-residential development and grafting onto and intensifying existing urban areas.

The connection between the ETA and existing and proposed future western arterial roads also becomes important in terms of shaping growth to the north of Taupo Town Centre. The proposal for a second Waikato River crossing

would seem a natural part of such linkages, further reinforcing the physical distinction of Taupo Town Centre into the future through traffic diversion.

Of particular importance to the east and south-east of Taupo Town Centre are Council's proposed concept plans for the "inner" boundary of the ETA. Council's proposed initiatives here would fulfil the recommendations of the Structure Plan 2001, by providing further choice in the land market, particularly for conventional urban residential development, in contrast to the premium lakefront and rural-residential development currently dominating the market.

Apart from providing an appropriate hierarchy of conventional urban residential development, and a network of open space and ETA buffering, significant areas would be allocated to commercial / industrial development. These areas would complement business development in Taupo Town Centre.

The Broadlands Road-ETA and Crown Road-ETA crossroads are viewed as ideal hubs for transport related commercial development which is at present largely absent from Taupo. Envisaged commercial uses include a highway service centre similar to that in Wairakei, with truck stops, and possible freight marshalling. The placement of commercial / industrial development on the boundary and cross-roads of the ETA, along with bunding and swales as part of a network of open space would also act as a reverse sensitivity "buffer" to State Highway traffic on the ETA and geothermal development activities to the east of the ETA. However, any proposals for development in close proximity to the ETA would need to be progressed in a collaborative manner with Transit New Zealand, to ensure that such development is situated at appropriate sites and consistent with State Highway standards and specifications.

The targeting of areas for urban growth and coordination of land-use and key infrastructure also provides Council with the opportunity to better assess whether new development is meeting the true costs of growth. They provide Council with the opportunity to align its financial contribution / development contribution policies, and funding and financial policies, and ensure that "growth pays towards growth".

4.1.3.2 Public Transport Infrastructure

Integral to the coordination of land-use and key infrastructure is the identification of public transport networks, and the provision of public transport facilities and services by Council. This includes non-road public transport.

Given the current lack of critical mass and preference for car based transport (supplemented by walking and cycling) in the Taupo Urban Area, it is unlikely that public transport infrastructure will be required to meet the needs of the community in the near future.

However, it is considered both visionary and prudent for Council to investigate public transport infrastructure options, in order that these options are not 'cut off' by decisions made now about land-use and infrastructure, and so that public transport infrastructure will be available to meet the needs of the community that emerge in the fullness of time.

4.1.3.3 Taupo Airport

Another key transport hub that emerges is Taupo Airport, and the lands that lie between it and the ETA. The ETA would improve passenger and freight access to the airport. The lands that lie between it and the ETA would provide the opportunity for the airport to diversify its commercial operations through supplementing them with land transport-airport related uses, for example storage, distribution, maintenance, and aviation training facilities – a well renowned national and international trend.

The Proposed Taupo District Plan identifies Taupo Airport as an important physical resource of the District providing for commercial passenger transport, freight traffic, aero clubs, and agricultural and tourism flights (Section 3f.2.2, “Traffic and Transport”). The continued operation and expansion of the Airport, within the existing site, is essential to the District, particularly as Taupo District itself continues to grow and develop. It is likely that air traffic and noise will increase in the east-west direction, in addition to the current north-south direction.

The Proposed Taupo District Plan provides for the development of Taupo Airport in accordance with the Taupo Airport Master Plan (1996), and identifies the existing noise boundary of Taupo Airport. Both Plans provide the airport with the ability to expand and change over time. The Taupo Airport Master Plan in particular, is a living document, designed to be reviewed from time to time, it provides a programme for development of the airport to 2015. As such possible future variations to the Proposed Taupo District Plan may be necessary once the Taupo Airport Master Plan is reviewed in order to avoid reverse sensitivity conflicts. These reverse sensitivity conflicts need to be carefully managed if the airport is to remain functional on its existing site, otherwise it may need to be relocated at some unspecified future date, if deemed necessary and appropriate.

The most important issues arising from a growth management perspective are the potential reverse sensitivity conflicts arising between the continuing operation and future expansion of Taupo Airport, and the encroachment of the Taupo Urban Area.

The character and level of amenity in proposed urban development in the close vicinity of the airport will be affected by the airport, particularly in terms of noise from low flying aircraft travelling to and from the airport runway. Careful consideration of the design of urban development in close proximity to the airport should be made so as to maximise the mitigation of noise impacts of the airport on future residents. Experience with other regional airports in New Zealand, shows that even residents outside set noise contours can consider themselves to be affected by aircraft noise and attempt to restrict changes to or expansion of airports.

In addition to robust urban and building design to address airport noise mitigation, initial and prospective purchasers of residential property in the close vicinity of the airport should be aware that their sites are likely to be subject to noise increase associated with the continuing operation and future expansion of Taupo Airport.

4.1.3.4 Summary

In summary the role of key infrastructure issues are as follows:

- ◆ **Coordination of Land-Use and Key Infrastructure**
 - The targeting of areas for urban growth and coordinating land-use with key infrastructure particularly the ETA, existing and future western arterial roads, a second Waikato River crossing, and Taupo Airport will assist in the management of the pattern and distribution of development.
 - The influence of the ETA in reorienting Taupo to its lakefront is a significant transformation, and will add to Taupo's "feel good" factor which has been growing strongly since the late 1990s as the town has asserted its position as a national and international destination.
 - The targeting of areas for urban growth and coordinating land-use with key infrastructure will assist Council in assessing the costs of growth and align its financial contribution / development contribution policies, and funding and financial policies accordingly, to ensure "growth pays towards growth".

- ◆ **ETA as an Urban Fence**
 - The ETA can help maintain compact urban form, acting as an urban fence, diverting heavy State Highway traffic improve lakeside property and town centre amenity, contain urban sprawl, and buffer existing and future residential areas from industrial and geothermal resource development activities.

- ◆ **Transport Hubs**
 - The Broadlands Road-ETA and Crown Road-ETA crossroads, and the Taupo Airport-ETA interchange, have the potential to establish themselves as transport hubs clustering transport-related, commercial, light-industrial, and education cluster land-uses which complement business development in Taupo Town Centre. Any proposals for development in close proximity to the ETA would need to be progressed in a collaborative manner with Transit New Zealand, to ensure that such development is situated at appropriate sites and consistent with State Highway standards and specifications

- ◆ **Public Transport Infrastructure**
 - Public transport infrastructure options (including non-road) should be investigated by Council in conjunction with current coordination of land-use and infrastructure. This is so as not to 'cut off' options by decisions made now, and to be able to meet the needs of the community that crystallise in the fullness of time.

- ◆ **Taupo Airport**
 - The continued operation and future expansion of Taupo Airport is essential to the District, particularly as Taupo itself continues to grow and develop.
 - With the review of the Taupo Airport Master Plan possible future variations to the Proposed Taupo District Plan may be necessary in order to avoid reverse sensitivity conflicts. These reverse sensitivity conflicts need to be carefully managed if the airport is to remain functional on its existing site.

- In addition to robust urban and building design to address airport noise mitigation, initial and prospective purchasers of residential property in the close vicinity of the airport should be aware that their sites are likely to be subject to noise increase associated with the continuing operation and future expansion of Taupo Airport.

4.2 Growth Constraints

Taupo faces a nationally unique set of administrative and physical constraints on its urban growth, which if not effectively addressed have the potential to result in unsustainable growth management outcomes for both Council and the community. The nature of these growth constraints means that available growth options especially for residential development are limited.

The utilisation of the Wairakei-Tauhara geothermal resource poses a set of physical and administrative constraints on Taupo's urban growth. In particular the establishment or expansion of incompatible land-uses has the potential to lead to reverse sensitivity conflicts. The challenge is to reconcile the development potential of the geothermal resource against urban growth.

It is also important to acknowledge that large parts of the existing Taupo urban area are built over significant geothermal resistivity areas. These are identified in **Map 2 – Wairakei-Tauhara Geothermal System** (as attached at the end of the TUSP 2004). As a consequence parts of the Taupo Urban Area are subject to varying levels of subsidence as a result of ongoing geothermal resource development. Given this awareness it is important that sound geothermal resource information is available to the community and any future geothermal development is carefully planned and monitored so as not to exacerbate the current situation.

The 2020 Taupo-nui-a-Tia project and Environment Waikato's "Protecting Lake Taupo" strategy, are strategies aimed at protecting the qualities of Lake Taupo. They have the potential to be an administrative constraint on urban growth in terms of raising current standards for stormwater and wastewater management. The potential retirement of some rural agricultural land to other uses may also have implications for urban growth.

Other major constraints on urban and rural-residential development are administrative in nature. They are the significant tracts of land in Landcorp, Department of Conservation, or Maori Trust administration that bound Taupo.

Targeting areas for growth, and coordinating land-use with key infrastructure, while taking into account these unique physical and administrative constraints offers a path forward to sustainably manage Taupo's urban growth.

4.2.1 Geothermal Resource

Taupo District is located on the Central Volcanic Plateau and the main geographical features of the district have been formed as a result of volcanic activity. This includes the mountains (Ruapehu, Ngauruhoe, Tongariro, and Tauhara), Lake Taupo, and the volcanic soils of the district. There are nine active geothermal systems located within or partially within the Taupo District.

In terms of resource management it is Environment Waikato (EW) which regulates the use and development of the geothermal resource in the region, with Council being responsible for land-use regulation. Through its Regional Policy Statement and Regional Plan, EW has established a comprehensive set of objectives and policies for the integrated management of the regional geothermal resource. The approach taken is to distinctly classify some geothermal systems as 'Development Geothermal Systems' and others as 'Protected Geothermal Systems'.

Six geothermal systems located whole or in part in Taupo District have been identified as 'Development Geothermal Systems', namely, Wairakei-Tauhara, Rotokawa, Ohaaki-Broadlands, Ngatamariki, Mokai-Ongaroto, and Atiamuri. A total of five geothermal power stations, operated by various companies, are located on these geothermal systems. In addition resource consents have been granted for a geothermal power station at Tauhara. Combined these geothermal power stations produce 7% of New Zealand's electricity requirements and accordingly represent a resource of regional significance.

In addition to the generation of electricity and other industrial uses, the geothermal systems in the District are valued for their scenic, recreational, cultural, and spiritual values. This includes a number of tourism operations associated with both activities that utilise the geothermal resource and some of the geothermal features in the District.

The geothermal resource, in particular the Wairakei-Tauhara geothermal system which encompasses the Taupo Urban Area, is a basic physical and administrative constraint in the management of urban growth. Large tracts of land are currently unavailable for conventional urban development due to hot ground, differential land subsidence, surface and subsurface land encumbrances, and potential reverse sensitivity conflicts. **Map 2 – Wairakei-Tauhara Geothermal System** (as attached at the end of TUSP 2004), shows the extent of the geothermal resource underlying Taupo the Taupo Urban Area.

As such there is the potential for competition between two forms of land-use – geothermal development activities on one hand – and urban and rural-residential development on the other. In this context Council has two roles both as growth manager and land-use regulator. Both roles are legitimate functions of a territorial authority and serve to reinforce one another. But these roles can also lead to perceived conflicts of interest, particularly with regards to Council's growth management initiatives and the regulation of existing and future geothermal development land-use activities.

Council therefore recognises the need to strengthen its relationship with the geothermal energy sector, in order to achieve sustainable outcomes for both geothermal development activities and urban growth.

By accommodating existing and anticipated geothermal development activities, and coordinating the pattern and distribution of urban growth, Council can manage their land-use dynamics, and avoid, remedy, or mitigate potential reverse sensitivity conflicts.

At the same time however the potential adverse effects of geothermal resource development need to be transparently monitored (such as heat, vegetation, land subsidence, etc.). The geothermal energy sector should also

keep the community well-informed of its future development plans for the geothermal resource, with acceptance that any adverse effects on the existing built environment shown to be caused by ongoing geothermal resource development are to be avoided, remedied, or mitigated.

Most existing and anticipated geothermal development in the Tauhara sector of the Wairakei-Tauhara geothermal system lies immediately to the east and south-east of the ETA. Targeting areas for urban growth, coordinating land-use with key infrastructure, using the ETA and an associated network of open space as an urban fence, and establishing transport hubs (as highlighted in **Section 4.1.3** above) offers Council the opportunity to accommodate existing and anticipated geothermal development activities, while at the same time coordinating the pattern and distribution of urban growth. This approach will also reduce potential reverse sensitivity conflicts.

As land-use regulator Council should then undertake variations to the Proposed Taupo District Plan in order to ensure that the physical layout of urban growth and the key recommendations for urban growth management that emerges from the TUSP 2004 (see **Section 7**) are given effect through appropriate objectives, policies, and methods.

Furthermore, a collaborative approach should be taken by Council, the geothermal energy sector, and EW to the integrated management of the geothermal resource in the Wairakei-Tauhara Geothermal System Management Plan (as prepared under the relevant regional resource consents), the geothermal portions of the Waikato Regional Policy Statement, Waikato Regional Plan, and the Proposed Taupo District Plan. This approach would ensure the geothermal resource regulation and land-use regulation is better coordinated to reflect Taupo's unique growth management situation.

4.2.1.1 Summary

In summary the challenges that the geothermal resource poses to urban growth management are as follows:

◆ **Significance of the Geothermal Resource**

- The Wairakei-Tauhara geothermal system underlies most of the Taupo Urban Area.
- The geothermal resource is a significant source of energy, as well as being valued for tourism, scenic, recreational, cultural, and spiritual values.

◆ **Urban Growth vs. Geothermal Development**

- Urban growth has the potential to lead to reverse sensitivity conflicts with existing and anticipated geothermal development, and vice-versa.
- Targeting areas for urban growth, coordinating land-use with key infrastructure, using the ETA and an associated network of open space as an urban fence, and establishing transport hubs offers Council the opportunity to avoid, remedy, or mitigate potential reverse sensitivity conflicts.
- At the same time the potential adverse effects of geothermal resource development need to be transparently monitored.
- The geothermal energy sector should keep the community well-informed of its future development plans for the geothermal resource,

and accept that any adverse effects on the existing built environment shown to be caused by ongoing geothermal resource development should be avoided, remedied, or mitigated.

◆ **Role of Council**

- Council should strengthen its relationship with the geothermal energy sector, in order to achieve sustainable outcomes for both geothermal development activities and urban growth.
- Council should initiate future variations to the Proposed District Plan, if it is unable to satisfactorily resolve appeals against that document, in order to ensure that the physical layout of urban growth and the key recommendations for urban growth management that emerges from the TUSP 2004 (see section 7) is given effect through its land-use policy and regulatory frameworks.
- Council, the geothermal energy sector, and EW should take a collaborative and integrated approach to the management of the geothermal resource, particularly through the Wairakei-Tauhara Geothermal System Management Plan, the geothermal portions of the Waikato Regional Policy Statement, Waikato Regional Plan, and the Proposed Taupo District Plan, in order to better coordinate future land-use and the development of the geothermal resource.

4.2.2 Lake Taupo

Lake Taupo is New Zealand's largest lake. The Lake is pristine with high water quality and is a resource of national significance.

The community recently identified the need to protect Lake Taupo's high water quality as a major issue. Monitoring undertaken by EW has shown a slow decline in the quality of the lake water in recent years. The reasons for this decline are likely to be the result of increased nutrient loadings from catchment use, particularly from agricultural activities.

The Lake is currently managed by many agencies with separate but supposedly complementary roles and over the past decade it has been unclear who is responsible for what with respect to its protection. There have also been increasing demands from the communities, businesses, and tourists in the Taupo catchment for coordinated action in order to safeguard the resource.

In response central government, local government, Tuwharetoa Maori Trust Board, and the Lakes and Waterways Action Group established the Taupo-nui-a-Tia project. 2020 Taupo-nui-a-Tia is a long-term vision for Lake Taupo and its catchment that integrates social, cultural, environmental and economic aspects. The purpose of the Project is to develop a clear framework for management of Lake Taupo in consultation with the community and stakeholders.

Stage 1 of the 2020 Taupo-nui-a-Tia project:

- ◆ Reviewed current information about the Lake.
- ◆ Identified the community values associated with the Lake, as well as the threats to those values.

- ◆ Identified who had roles and responsibilities in the catchment to protect the Lake.

Stage 2 of the project:

- ◆ Focuses on the Ngati Tuwharetoa Iwi Management Plan, which identifies the values important to the hapu and makes recommendations for protecting them.
- ◆ Looks at potential solutions to the threats identified in Stage 1 of the project, including public feedback into the potential solutions.

The Final Stage of the project focuses on implementation and includes an action plan on how the Lake will be effectively managed by all the relevant organisations.

Environment Waikato is presently working on the Protecting Lake Taupo Strategy, a subset of the wider 2020 Taupo-nui-a-Tia project based on the need to reduce nitrogen by 20 percent from current levels over the next 15 years.

Stage 1 of the strategy pulled together key stakeholder, community, Iwi, local and central government input. Stage 2 of the strategy provides for more formal community input via the Long-Term Council Community Plan consultation process. Finally, Stage 3 of the strategy entails Environment Waikato making formal variations to the Waikato Regional Plan to restrict nitrogen outputs from rural land, wastewater treatment and residential development.

Some of the options for controlling the amount of nitrogen flowing into the Lake include:

- ◆ Changing farm management systems to control effluent and reduce nitrogen losses.
- ◆ Changing land-use from agriculture to other activities, such as forestry, that produce much less nitrogen.
- ◆ Limiting fertiliser use on cultivated and pastoral land.
- ◆ Raising standards for urban wastewater and stormwater management.
- ◆ Improving septic tank standards.

These measures mean changing the way land is used which will particularly impact on the rural lifestyle and economy. In turn this will mean rethinking some current approaches to economic development / land development the economic development in the District and how best to preserve the quality of the Lake.

In terms of urban lifestyle and economy the following measures are anticipated:

- ◆ **Higher Environmental Standards for New Residential Development**
All new residential development within the Lake Taupo catchment will need to meet higher environmental standards for sewage and stormwater treatment.
- ◆ **Upgrading Community Sewerage Schemes**

Taupo District Council has planned an upgrade of community sewerage schemes throughout the District, which will include further reducing the amount of nitrogen left in treated wastewater.

From the perspective of the TUSP 2004 it is unclear how the 2020 Taupo-nui-a-Tia project and Protecting Lake Taupo Strategy will affect the actual growth and development of the Taupo Urban Area. Wastewater and stormwater management will become more expensive for some urban communities. Raised standards of stormwater and wastewater management would require a lift in the level of service and infrastructure Council provides in some parts of the District, and these costs would need to be shared equitably between the existing ratepayers and new development. It may also raise the ecological quality of new development. However, in terms of growth options it appears unlikely that retired agricultural land will be made available for urban development which would graft onto the existing Taupo Urban Area.

The outcomes of the 2020 Taupo-nui-a-Tia project and the Protecting Lake Taupo Strategy will need to be monitored by Council and any matters affecting urban growth management assessed accordingly at that time.

4.2.2.1 Summary

In summary the challenges that Lake Taupo poses to urban growth management are as follows:

◆ Significance of Lake Taupo

- Lake Taupo is a resource of national significance.
- The degradation of the resource has led to the establishment of the 2020 Taupo-nui-a-Tia project aimed at protecting and enhancing Lake Taupo.

◆ Urban Growth and Lake Taupo

- Other than the improvement of urban wastewater and stormwater management, it is unlikely that the 2020 Taupo-nui-a-Tia project and Protecting Lake Taupo Strategy will have any impact on the development of urban growth options for Taupo.
- Regardless, the outcomes of the 2020 Taupo-nui-a-Tia project and Protecting Lake Taupo Strategy will need to be monitored for potential impacts on the sustainable urban growth management strategy that emerges from the TUSP 2004.

4.2.3 Landcorp Land, Department of Conservation, and Maori Land

The other major constraints on urban and rural-residential development are administrative in nature. They are the significant tracts of land in Landcorp, Department of Conservation, or collective Maori administration that bound Taupo. **Map 3 – Land Tenure** (as attached at the end of the TUSP 2004) shows the extent of Landcorp land, Department of Conservation land, and the larger Maori land holdings held in Maori Trust. Taupo has been fortunate to benefit from this provision of substantial open space by 'default'. It is pertinent that Council continues to strengthen its relationships with these parties in order to maintain and enhance the amenity their landholdings provide to the District.

4.2.3.1 Landcorp Land

Landcorp Farming Limited is New Zealand's largest agricultural enterprise running 1.5 million stock units - sheep, beef and dairy cattle, deer and goats - on 110 farming units totalling 383,033 hectares. It has two subsidiaries Landcorp Investments Ltd, which manages a portfolio of leases and loans; and Landcorp Estates Ltd, which develops and sells land suitable for higher value use than farming.

The subsidiary company, Landcorp Estates Ltd, was incorporated in 2002 and will hold high value land sold to it by the parent company for subsequent subdivision and sale. The company has entered into joint venture arrangements for the development of two properties at Taupo. Investigation into the future of a further property at Taupo is currently underway. Landcorp Estates has the potential to be significant player in the future development of the Taupo Urban Area.

There are 3 key elements to Landcorp's future strategy:

1. Increase revenue annually by increasing animal numbers and diversifying the product range.
2. Increase productivity by using genetics, nutrition and technology transfer.
3. Increase return on assets by better utilisation of existing assets and exiting those unable to achieve an adequate return.

While the returns from agriculture remain part of an essential base to the New Zealand economy, it seems unlikely that any significant areas of land will be retired and made available for Taupo's growth.

In addition a key central government policy in relation to Treaty of Waitangi-Tiriti o Waitangi (Treaty-Tiriti) settlements since the mid-1990s has been to retain enough suitable remaining government land in Crown ownership, such as Landcorp land, to maintain a land bank for the eventual settlement of Maori Treaty-Tiriti grievances and land claims. Suitable Landcorp land is therefore potentially part of this land bank and is unavailable for urban growth, even if retired from agricultural use unless it is made available for development by any new Maori owners.

4.2.3.2 Department of Conservation Land

The Department of Conservation (DOC) is the central government organisation charged with conserving the natural and historic heritage of New Zealand on behalf of and for the benefit of present and future New Zealanders. Its mission is "to conserve New Zealand's natural and historic heritage for all to enjoy now and in the future".

DOC manages or administers on behalf of New Zealanders:

- ◆ national parks and conservation parks (formerly called forest parks)
- ◆ reserves and conservation areas
- ◆ protected indigenous forests

- ◆ protected inland waters and wild and scenic rivers
- ◆ indigenous/native wildlife
- ◆ non-commercial freshwater fisheries
- ◆ historic places on conservation land
- ◆ marine reserves and protecting marine mammals offshore islands set aside for conservation

The Department's "Statement of Intent 2003-2006" states that over the next five years DOC will continue to work towards the improved targeting of recreational opportunities to meet visitor needs and expectations. In particular at a local (area) level in consultation with the community, each visitor site will be analysed and the application of user standards and the provision of recreational facilities decided. This is part of a move towards a portfolio of facilities which is sustainable in the long term.

The service standards for huts and tracks will be reviewed. The establishment of service standards for the other facilities managed by the Department such as roads, signs, toilets, and camp grounds, car parks and amenity areas will follow the huts and tracks review. This will occur in consultation with the community. The Visitor Strategy (August 1996) will be reviewed and updated.

There will be a continuing rolling inspection process for visitor facilities. It is this inspection programme which will drive the maintenance and replacement programme for assets. Over the next five years there will be an increase in deferred maintenance undertaken on tracks and an acceleration of capital replacement for both huts and toilets.

There is no indication however that in this process DOC will consider the rationalisation of its land assets. As such it is highly unlikely that the significant tracts of land in DOC administration in the vicinity of the Taupo Urban Area will become available for urban development.

4.2.3.3 Maori Land

The other major administrative constraint is Maori land held in Maori Trust, particularly the Rangatira E and Paenoa Te Akau Blocks in the west between Taupo Town Centre and Acacia Bay, and the Hiruharama-Ponui Block to the south of Acacia Bay. Given the sheer number of beneficial owners, and the overarching purpose of Te Ture Whenua Act 1993 to restrict the further alienation of Maori Land, it is also unlikely that this land will be available for development in the near to mid future. The history over the past half century regarding Maori land held in Maori trust, and the legislation governing the alienation of Maori land, would point to this state of affairs continuing for some time into the future.

In a classical planning sense the Rangatira E, Paenoa Te Akau, and Hiruharama-Ponui Blocks would provide a sound extension to the urban growth of Taupo completing a "horseshoe" shape of urban form to the east and west of the Waikato River. The potential for development appropriate to the trustees and beneficial owners of Rangatira E, Paenoa Te Akau, and Hiruharama-Ponui Blocks and other Maori land held in Maori Trust should therefore be revisited, as part of the ongoing review of the TUSP 2004, while recognising that there is unlikely to be any change to the current situation for the next 20 years.

4.2.3.4 Summary

In summary the challenges that Landcorp, Department of Conservation, and Maori land pose to urban growth management are as follows:

◆ **Landcorp Land**

- The Landcorp land bounding the Taupo Urban Area needs to be taken into account in the targeting of areas for urban growth.
- The bulk of this land is likely to remain in Landcorp ownership as part of its agricultural business strategy in the near to mid-future.
- The quantities of land that are being retired for development are in small joint-venture partnership and are unlikely to provide significant areas for conventional urban development.
- Central Government Treaty-Tiriti settlement policy makes it unlikely that much Landcorp land will become available for Taupo's urban growth even if retired from agricultural use.
- This situation needs to be monitored and Council will need to engage Landcorp in a collaborative manner if it emerges as significant player in the future development of the Taupo Urban Area.

◆ **Department of Conservation Land**

- The extent of land in the vicinity of the Taupo Urban Area administered by the Department of Conservation looks set to remain that way indefinitely.

◆ **Maori Land**

- The history of over the past half century regarding Maori land held in Maori trust points to the continuing non-alienation of Maori land in the near to mid future.
- The extent of the Maori Land held in Maori Trust, particularly Rangatira E, Paenoa Te Akau, and Hiruharama-Ponui Blocks to the west of Taupo Town Centre needs to be taken into account in the targeting of areas for urban growth beyond 2024.
- The nature of tenure of the Rangatira E, Paenoa Te Akau and Hiruharama-Ponui Blocks makes it unlikely that this land will become available for Taupo's urban growth in the near to mid future.
- The potential of the Rangatira E, Paenoa Te Akau, and Hiruharama-Ponui Blocks to complete the "horseshoe" shape of Taupo's urban form, and other Maori Land held in Maori trust should be revisited in the future when the form of any settlement of Central North Island Treaty-Tiriti claims becomes clear.
- This situation needs to be monitored, particularly in terms of legislative change to Te Ture Whenua Act 1993, and Council will need to continue to engage Ngati Tuwharetoa and the Maori land trusts in a collaborative manner, particularly if they emerge as significant player in the future development of the Taupo Urban Area.

5 Land Demand and Supply

The overall objective of the TUSP 2004 is to establish a Sustainable Urban Growth Management Strategy for Taupo specific from 2004 to 2024, and indicative from 2024 to 2054. The data and analysis put forward in this section only covers the first period of 20 years.

The demand and supply for urban residential and business land in the Taupo Urban Area, is assessed taking account of building consent, dwelling, and population data which are taken as indicators of urban growth.

Currently however there is a significant misalignment between population growth projections, vacancy rates, and the rate of building activity – this section seeks to explain these differences.

5.1 Population Projections

Statistics NZ population projections are based on existing and historical patterns of population growth, which have been limited and slow in Taupo District – this is in contrast to the levels of development activity over the past 10 years which are likely to continue into the future.

There is a distinct difference between Taupo's usually resident population and the land / building "footprint" of the Taupo Urban Area. The land / building "footprint" is much larger than the population level suggests, this is mainly due to Taupo's position as a national tourism, holiday, and property investment centre. These are significant drivers for land demand and building activity, which combined with the natural amenity and character of Taupo act as a migration attractant.

Since the early 2000s there has also been a distinct change in the character and amenity of Taupo's built environment as part of the sustained level of development activity. This will have an effect the dynamics of the Taupo community, and will in turn have an impact upon Statistics NZ's analysis.

Council needs to work with Statistics NZ in order to acquaint it with the physical layout of urban growth and urban growth management initiatives Council is undertaking with the community as part of the TUSP 2004 and LTCCP process. There is a need for Taupo's local "flavour" to be added into the mix.

In the short-term this would point to the need for Council to engage Statistics NZ to re-examine the assumptions on which projections and forecasts have been made for the Taupo Urban Area, particularly in terms of migration and household formation forecasts. Given the variance of growth between the Taupo Urban Area and the rest of the District, Statistics NZ also needs to specifically package its analysis of the Taupo urban area as a subset of the District. This would provide a better picture of the relationship between the land / building "footprint" of the Taupo urban area and the dynamics of the Taupo community. This would assist Council with its urban growth management initiatives.

The following table shows population projections for the Taupo Urban Area over the 20-year period from 2001 to 2021.

Table 1 – Population Projections for Taupo Urban Area* 2001 - 2021					
Area Unit	Resident Population 2001	Resident Population 2006	Resident Population 2011	Resident Population 2016	Resident Population 2021
Acacia Bay	1,110	1,240	1,360	1,470	1,580
Central Taupo	3,820	3,910	3,980	4,040	4,090
Hilltop	3,770	3,970	4,140	4,300	4,450
Lakewood	830	990	1,150	1,320	1,500
Maunganamu	40	40	40	40	40
Nukuhau	1,330	1,410	1,470	1,520	1,560
Rangatira	60	60	60	60	60
Rangatira Park	530	610	680	770	870
Richmond Heights	2,300	2,380	2,430	2,470	2,500
Tauhara	4,340	4,570	4,760	4,920	5,070
Taupo East	10	10	10	20	20
Waipahihi	1,890	1,990	2,070	2,140	2,200
Wairakei-Aratiatia	600	600	590	580	570
Wharewaka	290	340	380	430	490
Total	20,920	22,120	23,120	24,080	25,000

Source: Statistic NZ Census 2001 Base

High Projection: Assuming High Fertility, Low Mortality and High Migration

* "Taupo Urban Area" is equivalent to Statistics NZ "Taupo Secondary Urban Area"

5.1.1 Highlights

- ◆ A projected 10% population increase over the next 10 years and 8% population increase over the further following 10 years.

The minimal level of population growth forecast for Richmond Heights and Wharewaka Area Units is misaligned with Council's urban development initiatives for these areas in the near future. The development of these areas would likely lift population growth for the Taupo Urban Area above the 10% mark over the next 10 years.

Plainly population growth alone does not provide an accurate picture of land demand and growth of the Taupo Urban Area.

5.1.1.1 Summary

In summary the issues arising in relation to population projections are as follows:

- ◆ **Population Growth vs. Urban Growth**
 - Statistics NZ projected population growth does not align well with the distinct change in the character and amenity of the built environment, and in the dynamics of the Taupo community.
 - Statistics NZ projected population growth does not align well with Council's urban growth management initiatives.

- Council will need to engage Statistics NZ to re-examine its projections and forecasts specifically for the Taupo Urban Area, particularly with regards to migration and household formation.
- Council will also need to engage Statistics NZ to specifically package its analysis of the Taupo Urban Area as a subset of the District in order to provide a better picture of the relationship between the land / building “footprint” of the Taupo Urban Area and the dynamics of the Taupo community, and assist Council with its urban growth management initiatives.

5.2 Occupied and Unoccupied Dwellings

The level of unoccupied dwellings in the Taupo Urban Area is typical of Taupo’s position as a national tourism, holiday, and property investment destination. This has an impact in the assessment of land demand and urban growth.

The following table shows the ratio of occupied and unoccupied dwellings for the three census periods 1991, 1996, and 2001.

Area Unit	1991 Occupied Dwellings	1991 Unoccupied Dwellings	1996 Occupied Dwellings	1996 Unoccupied Dwellings	2001 Occupied Dwellings	2001 Unoccupied Dwellings
Acacia Bay	342	192	405	204	471	222
Central Taupo	1,353	255	1,449	204	1,491	294
Hilltop	1,065	234	1,221	189	1,371	231
Lakewood	81	18	159	27	318	42
Maunganamu	9	-	12	-	12	-
Nukuhau	366	87	456	66	513	78
Rangatira	12	-	21	-	12	-
Rangatira Park	63	18	111	12	180	27
Richmond Heights	750	237	819	219	804	249
Tauhara	1,302	165	1,380	105	1,479	126
Taupo East	3	-	6	-	6	-
Waipahihi	546	201	651	180	720	192
Wairakei-Aratiatia	189	15	165	24	168	18
Wharewaka	90	117	105	135	123	177
Total	6,171	1,539	6,960	1,365	7,668	1,656

Source: Statistic NZ Census 2001 Base

* “Taupo Urban Area” is equivalent to Statistics NZ “Taupo Secondary Urban Area”

Currently Statistics NZ makes no distinction between private and public dwellings in these figures. This distinction would be useful for Council, in order to separate out accommodation related vacancy rates, and obtain a more complete picture of residential vacancy rates. Regardless it is clear that vacancy rates are high right across the Taupo Urban Area.

5.2.1 Highlights

- ◆ An average 18% vacancy rate for the Taupo Urban Area over the 3 census periods.
- ◆ An average vacancy rate of 57% in Wharewaka over the 3 census periods.
- ◆ An average vacancy rate of 35% in Acacia Bay over the 3 census periods.
- ◆ An average vacancy rate of 23% in Waipahihi over the 3 census periods.

The very high vacancy rate over the last 3 census periods indicates that the land / building “footprint” in the Taupo Urban Area outstrips population growth. This supports the analysis of the Taupo urban land market in **Section 4.1.1**, in that a large proportion of vacant dwellings are likely to be visitor accommodation, holiday homes, or investment properties. This form of land demand is not reflected in the population projections for the Taupo Urban Area.

The average 18% vacancy rate would appear to be a continuing feature of the land demand situation in the Taupo Urban Area, and this is likely to be higher in those areas which are outliers to Taupo Town Centre yet still enjoy access or views of Lake Taupo (currently Wharewaka, Acacia Bay, Waipahihi).

Again it is clear that population growth is not driving building activity or the demand for land alone, but other factors such as vacancy rates which more closely align with development activity in the Taupo Urban Area.

5.2.1.1 Summary

In summary of the issues arising in relation to occupied and unoccupied dwellings are as follows:

- ◆ **Vacancy Rates**
 - Taupo’s high vacancy rates are typical of its position as a national tourism, holiday, and property investment destination. They are an indicator that the land / building “footprint” in the Taupo Urban Area outstrips population growth.
 - A distinction between private and public dwellings would be useful in order to obtain a more complete picture of residential vacancy rates.
 - An 18% vacancy rate is likely to remain a continuing feature of the land demand situation for the Taupo Urban Areas.
 - Higher vacancy rates are likely to continue in areas which are outliers to Taupo Town Centre yet still enjoy lake access or lake views.

5.3 Building Activity

Building activity is taken as the key driver in assessing the level of land demand. The data presented in the following table relates only to building consents for the construction of new “stand-alone” buildings or extensions to existing buildings which result in completely new units.

Description / Purpose of Building Consent	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Residential	110	186	200	182	217	176	210	151	164	213
Business	6	16	17	5	7	10	16	10	11	10
Accommodation	4	6	5	6	2	3	5	3	2	5

Source: Taupo District Council

* Building consents for the construction of new buildings.

** Taupo Urban Area as demarcated by Taupo District Rating Roll boundaries and roughly equivalent to Statistics NZ “Taupo Secondary Urban Area”

5.3.1 Highlights

- ◆ An average of 181 residential buildings constructed per year over the last 10 years.
- ◆ An average of 11 business buildings constructed per year over the last 10 years.
- ◆ An average of 4 accommodation buildings constructed per year over the last 10 years.

The level of residential building activity remains relatively unchanged and therefore confirms the assumption of 180 lots per year in the Structure Plan 2001. The 10-year period (1993 to 2002) is considered a sensible benchmark for smoothing the cyclic nature of building activity which is significantly influenced by general state of the New Zealand economy, commodity prices, and interest rates.

As part of the TUSP 2004 it is assumed that this level of activity will continue for at least another 10 years, for the period 2004 to 2014.

Beyond this period it is anticipated that population growth will slow in accordance with the “greying” of the New Zealand population and the decline in fertility rates as part of an international trend across developed nations. Internal migration is also anticipated to fall during this period as part of national trends (i.e. migration from other centres in New Zealand to Taupo).

As such it is considered appropriate to adjust the assumed level of residential building activity downward for the following 10-year period, 2014 to 2024, from 180 lots to 120 lots per year.

Figures for business and accommodation building activity have also become available. The challenge is how to apply this information to assess the demand for business land.

Most business development currently occurs in and around Taupo Town Centre which is moving towards more “boutique” style café and retail premises and likely to sustain present levels of demand. Older and larger retail premises are being redeveloped to cater for smaller format commercial development as well as commercial properties where site coverage has been under-utilised.

However, there is growing pressure from “Large-Format” retail to establish along main transport routes outside Taupo Town Centre, Crown Road-ETA crossroads, and the Taupo Airport-ETA interchange have been identified in

the TUSP 2004 with the potential to establish themselves as transport hubs clustering transport-related, commercial, light-industrial, and education cluster land-uses which complement business development in Taupo Town Centre (see **Section 4.1.3** for further discussion of these issues).

These forms of business development are quite different in nature to those already well-established in Taupo, as such it is suggested that Council undertake a business land development strategy possibly as part of its economic strategy in order to ascertain the dynamics of demand and supply for business land for the short, medium, and long term. The information gathered can be used to confirm the urban growth allocation for business development put forward in **Section 7**.

There is also a clear need for Council to align its data recording methods for building and subdivision consents more closely with Statistics NZ methods (for example noting Statistics NZ Area Unit's on consent records). This would provide the further level of detail needed to identify which parts of the Taupo Urban Area are growing faster than others, and assist Council in its urban growth management initiatives.

This would include making this information available on a user-friendly "in-house" intranet as well as extending this to provide quality development activity information to the public through the Council website, media releases, and quarterly reports.

With the rationalisation and standardisation of development activity data recording methods, Council will then be able to effectively monitor the urban growth assumptions put forward in the TUSP 2004, as well as responding in a timely manner to changes in the nature of urban growth and the corresponding needs of the community.

5.3.1.1 Summary

In summary the issues arising in relation to building activity are as follows:

- ◆ **Residential Building Activity**
 - Residential building activity remains at the level of 180 lots per annum and confirms the base assumption in the Structure Plan 2001 – this is assumed to remain constant for the period 2004-2014.
 - Residential building activity is then adjusted downward in accordance with national population and demographic forecasts to 120 lots per annum for the period 2014 to 2024.

- ◆ **Business Building Activity**
 - Business and accommodation figures have become available; however due anticipated changes in the nature of business development in the near future these are unlikely to provide guidance for forward development planning.
 - Council should undertake business land strategy possibly as part of its economic development strategy in order to ascertain the dynamics of demand and supply for business land for the short, medium, and long term – in order to shape and validate the urban growth allocations put forward in **Section 7**.

◆ **Development Activity Information**

- Council should align its data recording methods for building and subdivision consents with Statistics NZ methods.
- Council should also standardise and make user-friendly the way development activity information is available to Council officers by intranet, and to the public through the Council website, media releases, and quarterly reports.
- The rationalisation and standardisation of development activity data recording methods will enable Council to monitor the assumptions put forward in the TUSP 2004, and respond in a timely manner to changes in the dynamics of urban growth and the corresponding needs of the community.

5.4 Land Demand Assumptions

Given the significant misalignment between population growth projections, vacancy rates, and the rate of building activity it is difficult to assess the exact nature of land demand in the Taupo Urban Area. Further analysis by Council closely engaging Statistics NZ and rationalising / standardising its own methods for recording development activity data is necessary as outlined above.

In the interim the TUSP 2004 is predicated on the following land demand assumptions:

◆ **Residential Development Activity**

- 180 lots per annum from 2004 to 2014.
- 120 lots per annum from 2014 to 2024.

To be monitored according to Council's LTCCP cycle, and the 5-yearly census cycle.

◆ **Vacancy Rate**

- An 18% vacancy rate from 2004 to 2014.

To be monitored according to the 5-yearly census cycle.

Land demand assumptions for business land will only be able to be made after Council undertakes a business land strategy possibly as part of its economic development strategy in order to ascertain the dynamics of demand and supply for business land for the short, medium, and long term.

The monitoring of these assumptions is necessary to validate the urban growth allocations put forward in **Section 7**.

5.4.1.1 Summary

In summary the issues arising in relation to land demand assumptions are as follows:

- ◆ **Residential Development Activity**
 - Residential development activity is assumed at a level of 180 lots per annum from 2004 to 2014, 120 lots per annum from 2014 to 2024, and will need to be monitored by Council according to its LTCCP cycle, and the 5-yearly census cycle.

- ◆ **Business Development Activity**
 - Council needs to undertake a business land development strategy possibly as part of its economic development strategy in order to make considered assumptions about future building development activity.

- ◆ **Vacancy Rate**
 - The vacancy rate is assumed at a level of 18%, and will need to be monitored by Council according to the 5-yearly census cycle.

5.5 Land Supply Assumptions

In terms of greenfields areas available for urban growth over the 20-year period 2004 to 2024, 3 areas were identified in the Structure Plan 2001: Central-North, South-East, and West (Acacia Bay) of Taupo Town Centre. These are also illustrated in **Map 1 – Future Urban Growth Concepts** (as attached in **Section 7**).

Greenfields development which grafts onto existing urban areas is taken as the predominant form of residential development. This is because this is the way Taupo has historically developed and accords with the level of natural and built amenity its residents are accustomed to, in contrast to intensification by infill development common in larger North Island urban centres.

The Proposed Taupo District Plan (PDP) does not set minimum lot sizes for subdivision so it is difficult to assess the yield of lots for any given growth area. The PDP takes the approach that it is the activity within an allotment that has an environmental effect, not the legal process of land division.

Based on existing settlement patterns the estimated lot yield of the greenfields areas available for urban growth is as presented in the following table:

Table 4 – Greenfields Areas Available for Urban Growth 2004-2024	
Area	Estimated Lot Yield
Central-North	580
South-East	1720
West	900
Total	3200

Taking the assumption for residential development activity of 180 lots per year for the period 2004 to 2014, and 120 lots per year for the period 2014 to 2024, put forward in **Section 5.4** above it is possible to estimate the total number of lots required to accommodate growth. This is presented in the following table:

Period	Anticipated Land Demand	Total Number of Lots Required
2004-2014	180 lots per year	1800
2014-2024	120 lots per year	1200
Total		3000

Council can verify the estimated lot yields as part of separate neighbourhood-specific structure planning exercises for these greenfields areas. This will need to be part of further investigatory work to assess the relationship between the pattern, timing, and distribution of urban growth among these greenfields areas. Until these exercises are undertaken by Council there is no ability to verify or update the land budget allocation by area set in the Structure Plan 2001 other than adjusting residential development activity from 180 lots for the period 2004 to 2014, to 120 lots per annum for the period 2014 to 2024.

Clearly however, there is sufficient capacity for urban growth for the assumed levels of residential development activity over the entire period when assessed against the estimated lot yield of the greenfields areas available for urban growth as shown in **Table 4** and **Table 5** above.

Given the uncertainty as to the capacity for infill in Taupo's existing urban area it is suggested the Council assess infill capacity based on current settlement patterns, this would also be a component of Council exploring Taupo Town Centre / lakefront / lakeview intensification options with the community. The benefits of Council undertaking this apart from responding in a proactive manner to the Taupo land market dynamics canvassed in **Section 4.1.3**, would be to:

- ◆ Create a smaller footprint for urban development.
- ◆ Reinforce the growing vibrancy and attractiveness of Taupo Town Centre.
- ◆ Safeguard the natural character and amenity of Taupo's countryside.
- ◆ Provide for the changing lifestyles and household composition that are emerging in the Taupo urban area.

5.5.1.1 Summary

In summary the issues arising in relation to land supply assumptions are as follows:

- ◆ **Greenfields Development**
 - Greenfields development is assumed as the predominant form of urban growth given the way Taupo has developed historically and level of natural and built amenity its residents are accustomed to.
 - Estimated lot yields for greenfields areas Central-North, South-East, and West (Acacia Bay) of Taupo Town Centre are as indicated in **Table 4** above.
 - There is sufficient capacity for urban growth at the assumed levels of residential development activity as indicated in **Table 4** and **Table 5** above.
 - Council can verify the estimated lot yields for the greenfields areas as part of separate neighbourhood-specific structure planning exercises.

- Council also needs to undertake further investigatory work as part of neighbourhood-specific structure planning exercises to assess the relationship between the pattern, timing, and distribution of urban growth among the greenfields areas.
- Until Council undertakes these exercises the land budget allocation by area set in the Structure Plan 2001 remains the assumed pattern, timing, and distribution of urban growth between the greenfields areas.

◆ **Infill Development**

- Council should also undertake an assessment of infill capacity for existing urban areas as part of exploring Taupo Town Centre / lakefront / lakeview intensification options with the community in order to create a smaller footprint for urban development, reinforce the vibrancy and attractiveness of Taupo Town Centre, safeguard Taupo's natural amenity and character, and provide for changing lifestyles and household composition emerging in the Taupo Urban Area.

5.6 Technical Notes

This section refers to the term "Taupo Urban Area" which comprises the existing urban area of Taupo around Taupo Town Centre and indicated in the planning maps attached at the end of the TUSP 2004.

The term "Taupo Urban Area" is used as an equivalent for the Statistics NZ term "Taupo Secondary Urban Area" (see **Map 3 – Census 2001 – Taupo Secondary Urban Area**).

Building consent records held by Council are filed by valuation number according to location within Taupo District Rating Roll boundaries. The building consent data is presented in the TUSP 2004 in aggregate form by the Taupo District Rating Roll boundaries which accord most closely to the Statistics NZ "Taupo Secondary Urban Area".

Statistics NZ urban areas are statistically defined areas with no administrative or legal basis. Statistics NZ urban areas are comprised of Area Units which generally coincide with suburbs or parts thereof.

There is a three part hierarchical sub-division of urban areas into:

- ◆ Main Urban Areas
- ◆ Secondary Urban Areas
- ◆ Minor Urban Areas.

Together the populations in main, secondary and minor urban areas comprise the statistically defined urban population of New Zealand. The urban area classification is designed to identify concentrated urban or semi-urban settlements without the distortions of administrative boundaries.

Main Urban Areas are very large urban areas centred on a city or major urban centre. Main Urban Areas have a minimum population of 30,000.

Secondary Urban Areas have a population between 10,000 and 29,999 and are centred on the larger regional centres.

The remainder of the statistically defined urban population of New Zealand is in Minor Urban Areas. Minor Urban Areas are urban settlements (outside main and secondary urban areas), centred around smaller towns with a population between 1,000 and 9,999.

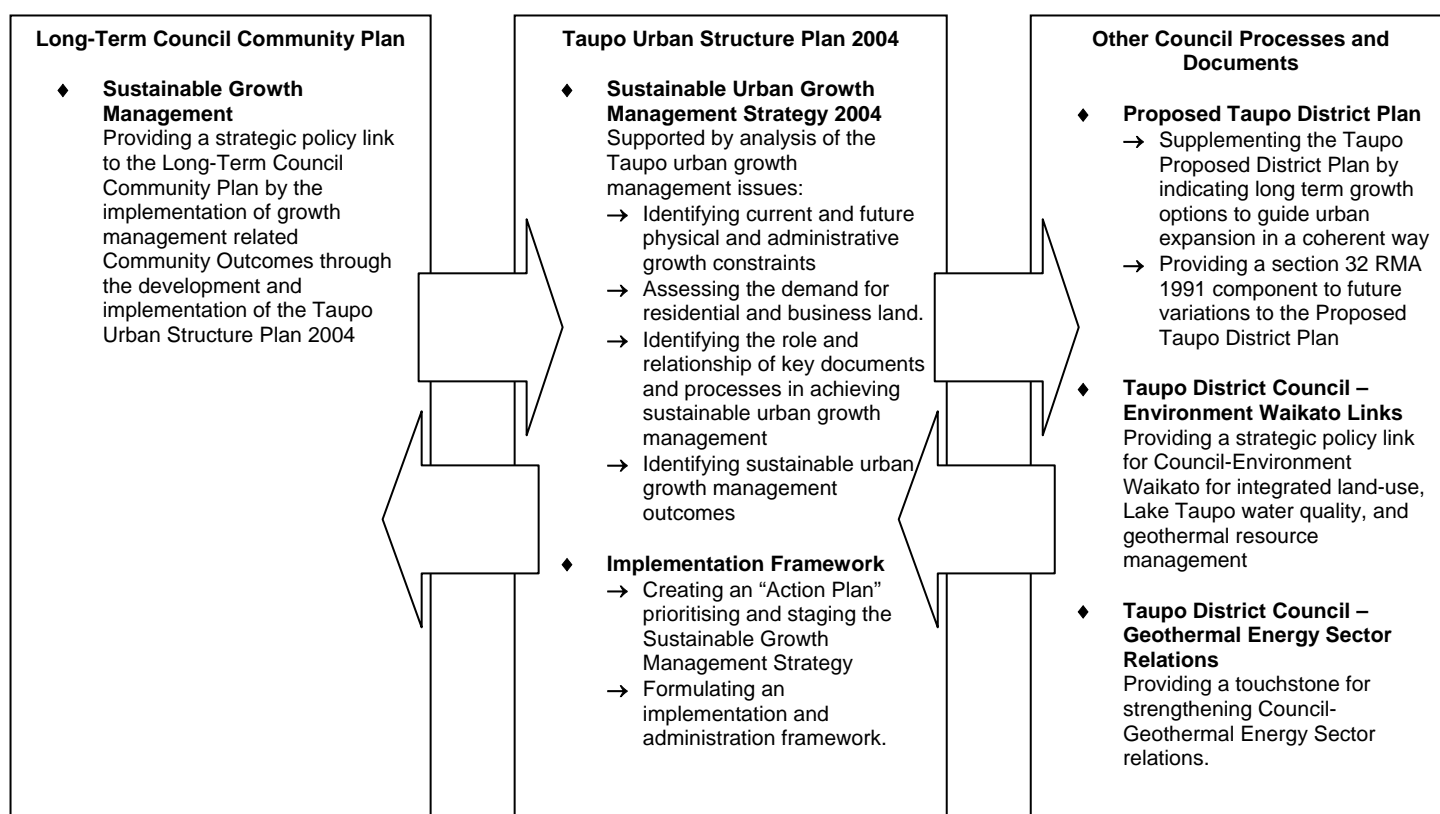
Taupo's existing urban area is classified a Secondary Urban Area having a population that falls between 10,000 and 29,999.

6 Key Documents and Processes

This section discusses the role and relationships between key Council documents and processes in achieving sustainable urban growth. In particular, the relationship between these key documents and processes and the TUSP 2004.

Diagram 1 below provides a conceptual overview of the TUSP 2004 and shows how the Sustainable Urban Growth Management Strategy it contains links to other key Council documents and processes.

Diagram 1 – Taupo Urban Structure Plan 2004 – Key Document and Process Linkages



6.1 Proposed Taupo District Plan

Decisions on submissions to the Proposed Taupo District Plan (PDP) were given by Council in mid 2003 with little substantive change in terms of its approach to growth management. The PDP focuses on the effects of land-use activities instead of the type of activity. The PDP also reflects a level of land-use flexibility which is potentially unsustainable for Council in terms of its role as growth manager:

The [District] Plan does not pre-judge where development or growth may occur, but instead identifies issues and concerns which need to be addressed in order for development to proceed. Structure Plans prepared by Council indicate long term growth options to guide urban expansion in a coherent way.

(Significant Resource Management issues – Section 2.3, Issue 6 – Growth Management)

It is not the role of the PDP to resolve these issues alone but rather to support and facilitate the initiatives Council takes through other documents and processes – strong policy linkages are vital.

The PDP continues to maintain as a key growth management policy that Structure Plans will guide the growth of the District (see PDP: **Significant Resource Management Issues – Section 2.3, Issue 6, Land Development – Section 3e, Traffic and Transport – Section 3f, Landscape Values – Section 3h, and Network Utilities – Section 3n**). This approach has also been retained and implemented as a method in relation to the Residential Environment (PDP: **3a.3.vi**), Rural Environment (PDP: **3b.3.vi**), Town Centre Environment (PDP: **3c.3.vi**), and Industrial Environment (PDP: **3d.3.vi**).

The TUSP 2004 itself is a broad-based growth management strategy designed to identify the growth management issues in the Taupo Urban Area, and tackle them in accordance with the Long-Term Council Community Plan Community Outcomes and the environmental bottom lines set in the Proposed Taupo District Plan.

The primary focus of the TUSP 2004 is to provide a high-level 20 to 50 year sustainable urban growth management strategy which identifies sustainable urban growth management outcomes for Taupo yet at the same time establishes an implementation framework to ensure that the key steps towards achieving these outcomes are taken.

The TUSP 2004 maintains the key policy in the Proposed Taupo District Plan with regards to growth management, namely that structure plans supplement that document “to indicate long term growth options to guide urban expansion in a coherent way”. However, in addition to this policy linkage, in order to effectively address the growth management issues the TUSP 2004 tackles, there is need to further strengthen the relationship between urban structure planning and the PDP. As it stands Council has no PDP policy framework to guide the direction or quantum of development. Nor does it contain a framework for the assessment of resource consent applications, even if such applications are at cross purposes to the urban growth management outcomes identified in the Structure Plan 2001, and now in the TUSP 2004.

In order to bridge this gap Council can use the TUSP 2004 as a section 32 RMA 1991 component to support future variations to the PDP in order to ensure that the identified urban growth management outcomes, such as the land-use options that have been identified in the TUSP 2004, are given effect through appropriate objectives, policies, and methods.

The challenge is to arrive at a balance between Council’s roles as land-use regulator and growth manager, while maintaining the integrity of the PDP.

6.1.1 Summary

In summary the issues regarding the relationship between the PDP and the TUSP 2004 are as follows:

◆ Proposed District Plan

- The PDP provides land-use opportunities through Environments and assigns the role of managing urban growth primarily to urban structure plans.
- However in order to effectively management Taupo's urban growth situation a joint approach between the two documents needs to be taken.
- The land-use options identified in the TUSP 2004 need to be given effect in the resource management frameworks (including appropriate policies, objectives, and methods) of the PDP.

◆ TUSP 2004 as a Section 32 RMA 1991 Component

- The TUSP 2004 should form part of a section 32 RMA 1991 component in any possible future variations to the PDP.
- The TUSP 2004 urban growth management outcomes need to be carefully translated into the existing framework of the PDP.

6.2 Taupo District Long-Term Council Community Plan

The Taupo District Long-Term Council Community Plan (LTCCP) to be completed by Council in 2004 offers the opportunity to link at a broad level the social, cultural, economic, environmental outcomes regarding sustainable urban growth management.

The TUSP 2004 seeks to provide a strategic policy link to the LTCCP by the implementation of growth management related Community Outcomes. The LTCCP Community Outcomes which relate most directly to the TUSP 2004 are as follows:

Economic

- ◆ Supportive infrastructure and communication networks.

Community

- ◆ Appropriate and affordable housing for all.

Environment

- ◆ Urban environments which complement their natural surroundings

All of these identified Community Outcomes have helped shape the development of the TUSP 2004, and are implemented in the Sustainable Urban Growth Management Strategy put forward in **Section 7**.

Changes in the urban development have implications for levels of service and the provision of infrastructure, and hence the costs associated with new development. Therefore, the growth management options identified in the TUSP 2004 have a direct impact on the calculation of growth-related costs in the LTCCP. It is also anticipated that this LTCCP process will reinforce the community's aspirations for compact urban form around Taupo Town Centre

as per VAST,⁵ the Structure Plan 2001, the Strategic Plan, and the Taupo Town Centre Structure Plan. Compact urban form has been seen by the community as being ideal to sustain the existing business district and amenity, while maintaining effective and efficient transport and bulk infrastructure networks.

Furthermore by targeting growth areas and coordinating land-use with key infrastructure Council will also be able to better assess the costs of growth and align its financial contribution / development contribution policies, and funding and financial policies as part of the LTCCP.

In addition the TUSP 2004 and LTCCP public consultation process gives the opportunity to define and establish Council and the community's vision for the future development and positioning of Taupo as a national and international destination.

6.2.1 Summary

In summary the issues regarding the relationship between the LTCCP and the TUSP 2004 are as follows:

◆ Long-Term Council Community Plan

- The LTCCP will become one of Council's most important documents tying together its roles and responsibilities in order to fulfil the aspirations of both Council and the community.
- The TUSP 2004 seeks to provide a strategic policy link to the LTCCP by the implementation of growth management related Community Outcomes.
- The growth management related Community Outcomes have helped shape the development of the TUSP 2004, and are implemented in the Sustainable Urban Growth Management Strategy put forward in **Section 7**.
- The growth management options identified in the TUSP 2004 have a direct impact on the calculation of growth-related costs in the LTCCP.
- The effect of maintaining compact urban form, targeting growth areas, and coordinating land-use with key infrastructure will need to be assessed against Council's financial and funding policies. Development contribution / financial contribution policies in the LTCCP will need to be aligned accordingly.

6.3 Non-Taupo District Council Documents

6.3.1 Waikato Regional Policy Statement and Waikato Proposed Regional Plan

The Wairakei-Tauhara geothermal system is the major geothermal resource that encompasses Taupo. As discussed in **Section 4.2.1** above the utilisation of this geothermal resource for electricity generation and ancillary activities is in potential competition with urban growth, and vice versa.

⁵ A Vibrant and Sustainable Taupo (VAST) was a document facilitated by Council in 2000 to promote sustainable development and identify community outcomes.

Environment Waikato (EW) regulates the use and development of the geothermal resource in the region, with Council being responsible for land-use regulation. Through its Regional Policy Statement and Proposed Regional Plan, EW has established a comprehensive set of objectives and policies for the integrated management of the regional geothermal resource. The approach taken is to distinctly classify some geothermal systems as 'Development Geothermal Systems' and others as 'Protected Geothermal Systems'.

Council considers that the relationship between the Taupo urban area and the Wairakei-Tauhara geothermal system is unique. No other major urban area in the Waikato Region is covered so extensively by a Development Geothermal System.

EW proposes significant changes to the geothermal section of the Regional Policy Statement and the geothermal module of the Proposed Regional Plan which Council will need to actively shape in order to ensure that sustainable management of the geothermal resource and land-use is undertaken in a more integrated manner with regards to the Taupo Urban Area. Council also recognises the need to strengthen its relationship with the geothermal energy sector, in order to achieve these outcomes.

By accommodating existing and anticipated geothermal development activities, and coordinating the pattern and distribution of urban growth, Council can sustainably manage land-use dynamics, and avoid, remedy, or mitigate potential reverse sensitivity conflicts.

At the same time however the potential adverse effects of geothermal resource development need to be transparently monitored (such as heat, vegetation changes, land subsidence etc.). The geothermal energy sector should also keep the community well-informed of its future development plans for the geothermal resource, and accept that any adverse effects on the existing built environment shown to be caused by ongoing geothermal resource development are to be avoided, remedied, or mitigated.

Furthermore, a collaborative approach should be taken by Council, the geothermal energy sector, and EW to the integrated management of the geothermal resource in the Wairakei-Tauhara Geothermal System Management Plan, the geothermal portions of the Waikato Regional Policy Statement, Waikato Regional Plan, and the Proposed Taupo District Plan. This approach would ensure the geothermal resource regulation and land-use regulation is better coordinated to reflect Taupo's unique growth management situation.

Therefore the sustainable urban growth management outcomes of the TUSP 2004 become key drivers in shaping resource management frameworks at the district and regional level.

The outcomes of the proposed changes to the geothermal section of the Regional Policy Statement and proposed variations to the Proposed Regional Plan will need to be monitored for potential impacts on the sustainable urban growth management strategy that emerges from the TUSP 2004.

6.3.1.1 Summary

In summary the issues regarding the relationship between the Waikato Regional Policy Statement and Waikato Proposed Regional Plan and the TUSP 2004 are as follows:

◆ **Waikato Regional Policy Statement and Waikato Proposed Regional Plan**

- The Regional Policy Statement and Proposed Regional Plan have established a comprehensive set of objectives and policies for the integrated management of the regional geothermal resource.
- EW proposes significant changes / variations to both documents and Council will actively participate in this process.
- Through implementing the outcomes of the TUSP 2004 Council can sustainably manage the land-use dynamics between development of the geothermal resource and urban growth.
- At the same time the potential adverse effects of geothermal resource development need to be transparently monitored.
- The geothermal energy sector should keep the community well-informed of its development plans for the geothermal resource, with the acceptance that any adverse effects on the existing built environment shown to be caused by ongoing geothermal resource development are to be avoided, remedied, or mitigated.
- Council, the geothermal energy sector, and EW should take a collaborative and integrated approach to the management of the geothermal resource, particularly through the Wairakei-Tauhara Geothermal System Management Plan, the geothermal portions of the Waikato Regional Policy Statement, Waikato Regional Plan, and the Proposed Taupo District Plan, in order to better coordinate future land-use and the development of the geothermal resource.
- The sustainable urban growth management outcomes of the TUSP 2004 become key drivers in guiding this process.

7 Sustainable Urban Growth Management Strategy 2004

The identification and assessment of urban growth options has been undertaken in the previous sections of this document.

This section extracts the key ideas that have emerged from previous sections as a physical layout of urban growth and the sustainable urban growth management recommendations, and puts them forward as a Sustainable Urban Growth Management Strategy 2004 for Taupo.

The Sustainable Urban Growth Management Strategy 2004 encapsulates the sustainable urban growth management outcomes of the TUSP 2004.

Section 7.1, Future Urban Growth Concepts, describes the physical layout of urban growth explaining how the pattern, distribution, and form of the urban growth can be accommodated specifically to 2024, and an indicative manner between 2024 and 2054. The Future Growth Concepts are illustrated on **Map 1 – Future Urban Growth Concepts** (as attached in this section); these can be described as the first step in achieving the Sustainable Urban Growth Management Strategy 2004.

Section 7.2, Sustainable Urban Growth Management Recommendations, puts forward a summary of the key recommendations arising from previous sections, indicating which objectives of the TUSP 2004 they fulfil; these can be described as the second step in achieving the Sustainable Urban Growth Management Strategy 2004. The implementation of these recommendations is vital to the achievement of the Sustainable Growth Urban Management Strategy 2004.

The TUSP 2004 provides an “Action Plan” for the Sustainable Urban Growth Management Strategy 2004 in **Section 8**. **Section 8** formulates an implementation and administration framework which outlines and prioritises the key steps that Council needs to take in order to achieve the physical layout of urban growth (as per **Section 7.1 - Future Urban Growth Concepts**) and Sustainable Urban Growth Management Recommendations (as per **Section 7.2**).

7.1 Future Urban Growth Concepts

The physical layout of urban growth that emerges from the key ideas in previous sections is illustrated on **Map 1 – Future Urban Growth Concepts**, (as attached to this section) and can be described as follows:

7.1.1 To 2024

◆ Future Residential Development

- The ETA acting as an urban fence and urban growth discouraged to the east and south-east of the ETA.
- Infill and greenfields development within the existing urban areas around Taupo Town Centre.
- Targeted urban growth to the lands to the east and south-east of Taupo Town Centre to the “inside” of the ETA.
- Targeted urban growth to the lands to the west of Taupo Town Centre around the existing urban area at Acacia Bay.

◆ Future Open Space

- A network of open space to the “inside” of the ETA.

7.1.2 From 2024 to 2054

◆ Future Residential Development Opportunities

- Greenfields development to the north of Taupo Town Centre on the peninsula of the first “meander” of the Waikato River.
- Potential greenfields development on Rangatira E and Paenoa Te Akau Blocks and other land held in Maori Trust subject to agreement with Maori land owners (refer to **Section 4.2.3** regarding the sensitivity of this issue).
- Potential greenfields development north-west of Acacia Bay.

7.1.3 From 2004 to 2054

◆ Future Business Development

- Complementary transport and business land hubs particularly at the Broadlands Road-ETA and Crown Road-ETA crossroads.
- Storage / distribution / maintenance / aviation facilities to the south-east of Taupo Town Centre between Taupo Airport and the ETA.
- Business and industrial activities clustered around ETA transport hubs to the “inside” of the ETA complementary to business activities in Taupo Town Centre.
- Industrial activities clustered around the power station site to the east of Taupo Town Centre and the ETA.

7.2 Sustainable Urban Growth Management Recommendations

The following recommendations to Council are a summary of the key ideas that have emerged from the previous sections of the TUSP 2004 and include an indication of the objectives of the TUSP 2004 to which they relate.

7.2.1 Coordinate Land-Use and Key Infrastructure

That Council coordinates land-use with key infrastructure particularly the ETA, existing and future western arterial roads, a second Taupo Town Waikato River crossing, and Taupo Airport, and target urban growth accordingly as well as avoid potential reverse sensitivity conflicts. By targeting of areas for

urban growth and coordinating land-use with key infrastructure Council will be able to better assess the costs of growth and align its funding and financial policies and financial contribution / development contribution polices in the LTCCP to ensure that “growth pays towards growth”.

(Objectives: 1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c)

7.2.2 Target and Prioritise Areas for Urban Growth

That Council targets suitable areas for residential and business development, as well as open space and coordinate the establishment of these land-uses with key infrastructure in the following general priority: central-north, south-east, and west of Taupo Town Centre.

That Council undertakes neighbourhood specific structure planning exercises for targeted growth areas to assess the relationship between the pattern, timing, and distribution of urban growth, the corresponding infrastructural and servicing needs of these areas, and funding tools available to meet the costs of growth.

(Objectives: 1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c)

7.2.3 Establish the ETA as an Urban Fence

That Council establishes the ETA, associated noise and visual buffering, and network of open space as an urban fence with residential development discouraged to the east and south-east of the ETA from 2004 to 2024. This will buffer existing and future residential areas from industrial and geothermal resource development activities, and avoid potential reverse sensitivity conflicts.

(Objectives: 1a, 2a, 2c).

7.2.4 Establish ETA Transport and Business Land Hubs

That Council establishes complementary transport and business land hubs along the ETA particularly at the Broadlands Road-ETA and Crown Road-ETA crossroads and Taupo Airport-ETA interchange, and clustering business and industrial activities around them to the “inside” of the ETA. This would act as a buffer of non-residential land-use activities and encourage residential development to remain to the “inside” of the ETA.

Any proposals for development in close proximity to the ETA would need to be progressed in a collaborative manner with Transit New Zealand, to ensure that such development is situated at appropriate sites and consistent with State Highway standards and specifications.

(Objectives: 1a, 1c, 2a, 2b, 2c)

7.2.5 Continue to Provide for the Operation and Expansion of Taupo Airport

That Council continues to provide for the operation and future expansion of Taupo Airport. With the review of the Taupo Airport Master Plan possible future variations to the Proposed Taupo District Plan may be necessary in order to avoid reverse sensitivity conflicts. These reverse sensitivity conflicts need to be carefully managed if the airport is to remain functional on its existing site.

Initial and prospective purchasers of property in the close vicinity of the airport should be well aware that such sites are likely to be subject to air traffic and noise increase associated with the development of the airport, particularly the east-west and north-south flight paths.

(Objectives: 2b, 3b, 5a)

7.2.6 Investigate Public Transport Infrastructure Options

That Council investigate public transport infrastructure options (including non-road), in order that these options are not 'cut off' by decisions made now about land-use and infrastructure, and so that public transport infrastructure will be available to meet the needs of the community that emerge in the fullness of time.

(Objectives: 2b, 3b, 5a)

7.2.7 Investigate Intensification Options

That Council investigates intensification options along areas of the Taupo lakefront, areas with views of Lake Taupo, and Taupo Town Centre in full consultation with the community. That this includes a detailed assessment of infill capacity for the Taupo urban area.

(Objectives: 1c, 2a, 2b, 2c, 5a)

7.2.8 Investigate Options for "Large-Format" Retail

That Council explores the options for "Large-Format" retail in full consultation with the community, particularly with regards to location relative to Taupo Town Centre.

(Objectives: 1c, 2a, 2b, 2c, 5a)

7.2.9 Undertake a Business Land Development Strategy

That Council undertakes a business land development strategy possibly as part of its economic development strategy in order to ascertain the dynamics of demand and supply for business land for the short, medium, and long term.

(Objectives: 1c, 2b, 5a)

7.2.10 Undertake a Rural-Residential Development Strategy

That Council undertakes a rural-residential development strategy for the fringes of the Taupo Urban Area, particularly between Taupo and Kinloch, and proximate hill and mountain ridgelines. To the east and south-east this should coordinate with the ETA. To the west and north-west of Taupo Town Centre this should coordinate with existing and future proposed arterial roads.

(Objectives: 1c, 2b, 2c, 5a)

7.2.11 Investigate the Issue of Housing Affordability

That Council explores the issue of housing affordability with key agencies and the community.

(Objectives: 1c, 3c, 5a)

7.2.12 Link TUSP 2004 Outcomes with Other Structure Plans

That Council links the outcomes of the TUSP 2004 to other structure plans (for example, Taupo Town Centre, Kinloch, Rural West).

(Objectives: 1c, 2a, 2b, 2c)

7.2.13 Geothermal Energy Sector to Provide Advance Information on Future Development Plans

That Council encourages the Geothermal Energy Sector to keep the community well-informed of its future development plans for the geothermal resource, with acceptance that any adverse effects on the existing built environment shown to be caused by ongoing geothermal resource development are to be avoided, remedied, or mitigated.

(Objectives: 1a, 4a, 4b, 5a)

7.2.14 Establish a Transparent Geothermal Resource Monitoring Framework

That Council, the Geothermal Energy Sector, and EW establishes a transparent geothermal resource monitoring framework aimed at monitoring the potential adverse effects of geothermal resource development on existing and future urban areas, with acceptance that any adverse effects on the existing built environment shown to be caused by ongoing geothermal resource development are to be avoided, remedied, or mitigated.

(Objectives: 1a, 4a, 4b, 5a)

7.2.15 Advance a Collaborative Approach to the Management of the Land-Use and Resource-Use Dynamics between Geothermal Resource Development and Urban Growth

Council, the geothermal energy sector, and EW should take a collaborative and integrated approach to the management of the geothermal resource, particularly through the Wairakei-Tauhara Geothermal System Management Plan, the geothermal portions of the Waikato Regional Policy Statement, Waikato Regional Plan, and the Proposed Taupo District Plan, in order to better coordinate future land-use and the development of the geothermal resource and reflect Taupo's unique growth management situation.

(Objectives: 1a, 4a, 4b, 5a)

7.2.16 Initiate Future Variations to the Proposed Taupo District Plan

That Council presents the TUSP 2004 as a section 32 RMA 1991 component to support future variations to the Proposed Taupo District Plan in order to ensure that the physical layout of growth described in **Section 7.1** (as illustrated in **Map 1**), and the relevant recommendations from this section (to be implemented as set out in **Section 8**), are given effect in that document's land-use policy and regulatory frameworks.

(Objectives: 1a, 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c, 4a, 4b, 5a)

7.2.17 Link TUSP 2004 Outcomes to the Long-Term Council Community Plan

That Council identifies sustainable urban growth management as a process in the LTCCP.

That once the TUSP 2004 has been consulted on with the community that Council assesses the impact of the Sustainable Urban Growth Management

Strategy 2004 on its funding and financial policies in the LTCCP, and align the LTCCP.

(Objectives: 3c, 5a)

7.2.18 Identify the “Liveability” of the Taupo Urban Area

Given the continuing high levels of development activity that Council lead an annual development planning forum with key agencies, stakeholders, and the public, in order to be more responsive to changes in urban development, the concerns and needs of the community, the direction of future development, and the positioning of Taupo as a national and international destination.

That this initiative include the identification of character and amenity, the “liveability” of the Taupo Urban Area – those qualities that make Taupo a unique place to visit, live, work, and play in. This should be in close reference to Council’s Recreation, Leisure, and Reserves Strategy.

The Ministry for the Environment’s “Live, Work, and Play” publication (June 2002), the Western Bay of Plenty SmartGrowth Strategy (2004), and Queenstown Lakes District Council’s “Tomorrow’s Queenstown” (2002), provide Council a clear set of comprehensive and successful tools, techniques, and processes for helping maintain and create a “liveable” Taupo urban environment.

(Objectives: 1b, 1c, 2a, 2b, 2c, 3a, 3b, 3c, 5a)

7.2.19 Rationalise and Standardise Development Activity Data Management System

That Council engages Statistics NZ to tailor its analysis of the Taupo urban area as a subset of Taupo District taking account the changes in the character and amenity of Taupo, the changing dynamics of the Taupo community, and Council’s urban growth management initiatives, particularly with regards to migration and household formation.

That Council rationalises and standardises its development activity data management system in order to align this information with Statistics NZ frameworks and make it available in a user-friendly form to both Council officers and the community via intranet, internet, media releases, and quarterly reports.

(Objectives: 1c, 5a)

8 Implementation Framework

8.1 The “Action Plan”

In addition to the recommendations put forward to Council in **Section 7**, a critical part of the structure planning process is the establishment of a framework for securing the outcomes contained in the document, through time.

A successful implementation framework identifies:

- ◆ Actions.
- ◆ Priorities.
- ◆ Tools.
- ◆ Responsibilities, some of which are Council / public body related, as well as a range of others which are private sector related.

This section takes the Sustainable Urban Growth Management Strategy 2004 and outlines the steps that will need to be taken for it to be achieved.

8.2 The Toolbox of Techniques

Council tools for implementing the Proposed Sustainable Urban Growth Concept include:

- ◆ The Proposed Taupo District Plan.
- ◆ The forthcoming Taupo District Long Term Council Community Plan (LTCCP).
- ◆ Neighbourhood-specific design planning.
- ◆ Further Council land-use / infrastructure investigations.

Council related tools for implementing the TUSP 2004 include:

- ◆ The Environment Waikato Regional Policy Statement and Proposed Waikato Regional Plan.

8.3 Critical Actions

In addition to the Future Urban Growth Concepts (**Section 7.1**) and Sustainable Urban Growth Management Recommendations (**Section 7.2**) put forward to Council in **Section 7**, the following 8 critical actions as seen as crucial in establishing an effective implementation and administration framework to achieve the Sustainable Urban Growth Management Strategy 2004.

Action 1	IMPLEMENT THE SUSTAINABLE URBAN GROWTH MANAGEMENT STRATEGY 2004			
Explanation	The Sustainable Urban Growth Strategy 2004 fulfils the objectives of the TUSP 2004.			
Priority / Timing for Action	Lead Agency	Support Agencies	Tools / Plan	Linked Actions
High By September 2004	Taupo District Council	Environment Waikato Landcorp Rangatira E Block and Paenoa Te Akau Block Maori Landowners Tuwharetoa	Initiate future variations to the PDP to include a growth management framework with appropriate objectives, policies, and methods which reflects the Sustainable Urban Growth Management Strategy 2004. The Sustainable Urban Growth Management Strategy 2004 to be assessed in terms of: <ul style="list-style-type: none"> • asset management planning • community outcomes and funding and financial policies in the 2004-2005 LTCCP Identify the “liveability” of the Taupo Urban Area, and undertake appropriate measures to preserve and enhance these qualities.	Geothermal Energy Sector removing relevant land encumbrances on targeted 2004 to 2024 growth areas. The Geothermal Energy Sector keeping the community well-informed of its future development plans for the geothermal resource, and with acceptance that any adverse effects on the existing built environment shown to be caused by ongoing geothermal resource development are to be avoided, remedied, or mitigated. Completion of other structure plans (for example, Taupo Town Centre, Kinloch, Rural West). Completion of Recreation, Leisure, and Reserves Strategy. Formulation of a Business Land and Rural-Residential Development Strategy. Investigation of Taupo Town Centre / lakefront / lakeview intensification, and “Large-Format” retail options in full consultation with the community. Investigating the issue of affordable housing. Monitoring Landcorp land development, particularly with regards to the retirement of agriculture land for residential development Monitoring the 2020 Taupo-nui-a-Tia project and Protecting Lake Taupo Strategy outcomes. Monitoring Rangatira E Block and Paenoa Te Akau Block Maori Landowners land development aspirations. Monitoring Central North Island Treaty-Tiriti settlements. Review of Taupo Airport Master Plan. Investigate Public Transport Options.

Action 2	CONSTRUCT THE EASTERN TAUPO ARTERIAL			
Explanation	This key infrastructure is seen as fundamentally underpinning the Sustainable Urban Growth Strategy 2004.			
Priority / Timing for Action	Lead Agency	Support Agencies	Tools / Plan	Linked Actions
High Stages of construction and funding sources to be determined as a matter of urgent priority (no later than July 2004)	Taupo District Council	Transit New Zealand Transfund	<p>The construction of the ETA will need to be assessed in terms of asset management planning, funding and financial policies, and the LTCCP aligned accordingly.</p> <p>Consideration should be given by Council to using the development contributions provisions of the LGA 2002 as a funding source by formulating a development contributions policy in the LTCCP.</p>	<p>Geothermal Energy Sector removing relevant land encumbrances on ETA designation in accordance with Transit NZ requirements.</p> <p>Maintaining priority within the regional roading programme.</p> <p>Determining alternative sources of funding if there is a Central Government shortfall.</p> <p>Utilising the provisions of the Land Transport Management Act 2003 if appropriate.</p>

Action 3	UNDERTAKE NEIGHBOURHOOD SPECIFIC STRUCTURE PLANNING FOR TARGETED URBAN GROWTH AREAS TO IDENTIFY RESIDENTIAL AND BUSINESS DEVELOPMENT CAPACITY, OPEN SPACE, EDUCATIONAL, AND INFRASTRUCTURE REQUIREMENTS			
Explanation	These structure planning exercises are vital in order to assess the timing of development of the targeted urban growth areas, and the costs of servicing them.			
Priority / Timing for Action	Lead Agency	Support Agencies	Tools / Plan	Linked Actions
High Plans for all areas to be completed by January 2006	Taupo District Council	Environment Waikato	Council asset management plans. Agreed funding policies which avoid cross-subsidisation of new development by existing ratepayers.	Verification / adjustment of land budget for growth areas in Structure Plan 2001. Revision of Council asset management plans. Completion of Recreation, Leisure, and Reserves Strategy. Investigation of Taupo Town Centre / lakefront / lakeview intensification, undertaking infill capacity assessment for Taupo urban area in full consultation with the community. Formulation of a Business Land and Rural-Residential Development Strategy. Knowledge of the costs of growth. Assessment of these exercises in terms of: community outcomes and funding and financial policies in the LTCCP Timely recovery of equitable development and financial contributions. Review of Taupo Airport Master Plan. Investigate Public Transport Options.

Action 4	PROVIDE KEY INFRASTRUCTURE IN A MANNER THAT ENCOURAGES THE LAND-USE PATTERNS IN THE SUSTAINABLE URBAN GROWTH MANAGEMENT STRATEGY 2004			
Explanation	The timely provision of key infrastructure has a strong influence on both the timing and location of urban development.			
Priority / Timing for Action	Lead Agency	Support Agencies	Tools / Plan	Linked Actions
High January 2006 (to be coordinated with Action 3)	Taupo District Council	Transit NZ Transfund	Undertake investigative exercises for other future arterial roading to the west of Taupo Town Centre, and a second Waikato River crossing as indicated on Map 1 – Future Urban Growth Concepts in full consultation with the community and affected landowners.	<p>Completion of other structure plan exercises (for example, Taupo Town Centre, Kinloch, Rural West).</p> <p>Completion of Recreation, Leisure, and Reserves Strategy.</p> <p>Further assessment in terms of LTCCP community outcomes, asset management planning, funding and financial policy.</p> <p>Formulation of a Business Land and Rural-Residential Development Strategy.</p> <p>Investigation of Taupo Town Centre / lakefront / lakeview intensification, and “Large-Format” retail options in full consultation with the community.</p> <p>Review of Taupo Airport Master Plan.</p> <p>Investigate Public Transport Options.</p>

Action 5	ENSURE THAT THERE IS AN AGREED URBAN DESIGN SOLUTION FOR AVOIDING REVERSE SENSITIVITY CONFLICTS BETWEEN THE URBAN GROWTH AND GEOTHERMAL RESOURCE DEVELOPMENT			
Explanation	It is essential for the long-term co-existence of land-uses with quite different effects, particularly Council-owned land to the south-east and east of Taupo Town Centre, that one does not compromise the ability for the other to operate.			
Priority / Timing for Action	Lead Agency	Support Agencies	Tools / Plan	Linked Actions
High To be determined as part of Action 2 by July 2004	Taupo District Council	Geothermal Energy Sector	Construction of the ETA, associated noise and visual buffering, network of open space, and staged development of Council owned lands to the south-east of Taupo Town Centre.	Geothermal Energy Sector to remove relevant land encumbrances on these targeted growth areas to allow staged development to proceed

Action 6	MONITOR ADVERSE EFFECTS ON THE TAUPO URBAN AREA OF ONGOING GEOTHERMAL RESOURCE DEVELOPMENT			
Explanation	It is critical that Council, the Geothermal Energy Sector, and EW understand the relationship between ongoing geothermal resource development and the possible adverse effects on both existing and future urban areas.			
Priority / Timing for Action	Lead Agency	Support Agencies	Tools / Plan	Linked Actions
High September 2004	Environment Waikato	Taupo District Council Geothermal Energy Sector	The production of an agreed long-term monitoring strategy. Ongoing monitoring in Crown Road and other agreed locations.	Construction of the ETA, associated noise and visual buffering, network of open space and staged development of the lands to the south-east of Taupo Town Centre. Council engaging EW and submitting to changes / variations to the RPS and PRP in order that the regional resource management framework better reflects Taupo's unique urban growth management situation.

Action 7	ESTABLISH FORMAL PROCEDURES FOR MONITORING THE EFFECTIVENESS OF TUSP 2004 OUTCOMES			
Explanation	The TUSP 2004 urban outcomes (including the Sustainable Urban Growth Management Strategy 2004) needs to become part of Councils policy decision making and resource allocation frameworks.			
Priority / Timing for Action	Lead Agency	Support Agencies	Tools / Plan	Linked Actions
High By June 2004	Council Management Team Destination Lake Taupo (as exemplar for approach to data management)		<p>Appointment of TUSP 2004 Internal Champion with primary responsibility for implementing and monitoring TUSP 2004 urban growth management outcomes.</p> <p>Conversion of TUSP 2004 Action Plan into a formal project implementation framework, including allocation of a support budget.</p> <p>Rationalisation and standardisation of development activity data management system that better aligns to Statistics NZ frameworks:</p> <ul style="list-style-type: none"> • engaging Statistics NZ to tailor its analysis of the Taupo urban area as a subset of Taupo District • notation of Stats NZ Area Units on building consents and resource consents • providing development activity information in a user-friendly form to both Council officers and the community via intranet, internet, media releases, and quarterly reports. 	Document used as source material for the LTCCP, Annual Plan, Proposed Taupo District Plan, asset management planning, structure planning exercises.

Action 8	FORMALLY RECORD AND VERIFY A NUMBER OF RISKS WHICH IF NOT MANAGED WILL AFFECT THE SUCCESS OF TUSP 2004 OUTCOMES			
Explanation	<p>These include:</p> <ul style="list-style-type: none"> ◆ Monitoring of key data (building and subdivision consents, census population and dwelling data) and forecast development uptake rates, in accordance with the LTCCP and census cycles. ◆ Linkages to other relevant implementation documents in particular the LTCCP, Annual Plan, and Proposed Taupo District Plan ◆ Monitoring and shaping changes / variations to the Waikato Regional Policy Statement and the Waikato Proposed Regional Plan, particularly with regards to the environmental effects between geothermal resource development and the Taupo Urban Area. ◆ Comprehensive asset management planning paralleled with funding and financial policies in the LTCCP to ensure that the infrastructure which supports urban growth is provided in a timely manner (to be completed by 2006). ◆ Adequate serviced land available for development, in order to prevent settlement pattern distortions, monopolies, and price spikes. 			
Priority / Timing for Action	Lead Agency	Support Agencies	Tools / Plan	Linked Actions
High July 2004 with formal outcome monitoring then following each annual "Development Planning / Growth Management Forum"	Appointed TUSP 2004 Internal Champion Council Management Team Destination Lake Taupo (as exemplar for Taupo's marketing and "branding" as a national and international destination)	Lake Taupo Development Company annual "Development Planning / Growth Management Forum"	Conversion of TUSP 2004 Action Plan into a formal project implementation framework, including allocation of a support budget. Identification of any further risks to TUSP 2004 implementation	Council leading an annual "Development Planning / Growth Management Forum" with key agencies, stakeholders, and interested members of the public. Identifying the "liveability" of the Taupo Urban Area, in order to undertake appropriate measures to preserve and enhance these qualities. Completion of Recreation, Leisure, and Reserves Strategy.

Glossary

CBD	means Central Business District and is interchangeable with the term Taupo Town Centre
Council	means Taupo District Council
EW	means Environment Waikato
LGA 2002	means the Local Government Act 2002 or any legislation substituted for the same.
LTCCP	means Long-Term Council Community Plan adopted under section 93 of the Local Government Act 2002 or any legislation substituted for the same.
PDP	means Proposed Taupo District Plan
RMA 1991	means the Resource Management Act 1991 or any legislation substituted for the same.
Structure Plan 2001	means the Taupo Town Urban Structure Plan 2001
Statistics NZ	means Statistics New Zealand
Taupo Urban Area	means the Census 2001 Area Units demarcated in “Map 4 – Census 2001 Area Units” to the Taupo Urban Structure Plan 2004
TDC	means Taupo District Council
TUSP 2004	means the Taupo Urban Structure Plan 2004

References

- A Vibrant and Sustainable Taupo District “VAST” (2002)
- Draft Taupo District Long-Term Council Community Plan 2004-2014
- Draft Development Contributions Policy (2004)
- Future Land Use Requirements in the Taupo Urban Area 1997
- Proposed Taupo District Plan (Decisions Version)
- Taupo Airport Master Plan
- Taupo District Strategic Plan and Long-Term Financial Strategy 2002-2012
- Taupo Town Centre Structure Plan 2004
- Taupo Town Integrated Urban Design and Traffic Engineering Study 1998
- Taupo Town Urban Structure Plan 2001
- Urban Development Issues Discussion Paper 1997