

# 5 Focus on Taupo District

## 5.1 The way we were

The management of growth within the District has been influenced by a variety of institutions, legislation, and political factors over time. These different factors have helped to shape the existing character of the established urban areas and the broader rural environment.

The historical information in this section is grouped according to the former local government organisations that had jurisdiction over the District: Taupo County Council, Taupo Borough Council, Tongariro United Council, and the Waikato Valley Authority. These organisations were disbanded as part of local government reforms in 1989, and replaced with Taupo District Council and Waikato Regional Council (Environment Waikato).

Most, if not all of the District's contemporary growth management issues have a historical basis, which hold as true for the present time as has been the case in the past.

### Taupo County Council

#### Initially a Core Infrastructure Focus

1952. Taupo County Council established.

The focus of planning to establish the necessary infrastructure to develop the District and improve the standard of housing.

1955. Building by-laws introduced to help address the housing concerns.

1950s-1960s. The development of the Western Access Road and Poihipi Road in co-operation with Central Government opens access right round the lake. Taupo and Taumarunui Counties better able to construct local roads, opening up large tracts of land for development.

#### The Long Germination of the Eastern Taupo Arterial

1963. Taupo Eastern By-Pass first publicly discussed. The by-pass proposal subsequently influences the design and construction of Taupo's roading network.

1964. The Lands and Survey Department suggests a route for the By-Pass through the County (close to present designation).

1968. The by-pass debate comes to a head as a result of concerns held by the Borough and County regarding the amenity effects on Taupo of a Ministry of Work's proposal to construct a four lane highway along the lakefront, including a new bridge over the harbour.

1969. The Ministry of Work's plans moth-balled.



### **The Planning pre-eminence of Lake Water Quality and Amenity Protection**

1955. The inaugural County Plan comes into effect (operative 1959), regulating “urban sprawl” in the County, and seeking to establish green belts and public access to the lake.

1957. The concept of a “Lakeshore Preservation Scheme” first publicly discussed and promoted.

1968. Lake Shore Reserves Scheme project. A joint Central Government-Council scheme to:

1. Maintain the high water quality of Lake Taupo.
2. Maintain / enhance the natural vegetation around the lake and its tributaries.
3. Subject to maintaining the natural environment, maximise public access and enjoyment of the lake and river margins.
4. Maintain existing natural ecosystems (including trout fisheries), and protect historical sites around the lake.
5. Preserve in perpetuity the outstanding natural character of the lake and its environs.

This project was taken up by the Tongariro United Council, further refined and carried over into the revised District Schemes.

Ultimately a total of 18,601 hectares put into reserve around Lake Taupo and its tributaries, throughout both Taupo and Taumarunui Counties, require the acquisition of 13,133 hectares of both private and Crown land.

The scheme was dependent on Central Government funding to acquire the identified land, either through negotiated acquisition, or at the time of subdivision. However, Government enthusiasm dwindled over the years, as did the funding for land acquisition. Although the County carried the designations over in its Planning Schemes until it was superseded by the Proposed District Plan, the project was never fully implemented.

1968. Taupo and Taumarunui County Councils designate land for Lakeshore Reserves.

### **Taupo Borough Council**

#### **Taupo Town Grows at the Intersection of Lake, River, and Arterial roads**

1956. The first Town Borough Plan. Initially the town grows from the lake front between the Waikato River and the Napier-Taupo back towards the AC Baths following arterial routes. Conventional zoning pattern, based on segregating commercial, residential and industrial activities, interspersed plentifully with neighbourhood parks. The lake front naturally attracts motel accommodation for the tourist industry.

#### **The Long and Controversial Germination of a Proposed Second River Crossing**

1979. A proposal for second bridge over the Waikato River linking to Titiraupenga Street to bypass the Taupo CBD adopted into the Taupo



Borough Plan. Part of the proposal to provide additional parking for the CBD, substantial capital spent acquiring land within the Taupo CBD for this purpose.

1984. The second bridge withdrawn from the Plan, prompting a comprehensive review of Taupo's transport network, eventually resulting in the construction of Arrowsmith Avenue and Kiddle Drive, linking Crown Road to Broadlands Road and extending Acacia Bay Road to Poihipi Road.

**Tongariro United Council**

Following the introduction of the Town and Country Planning Act 1977 the Tongariro United Council (TUC) undertook a comprehensive evaluation of growth management issues in the Taupo area. The TUC produced a Regional Planning Policy Discussion document which highlighted the issues below.

These issues remain as true for the present as they were then.

**The Protection of Lake Taupo**

Deterioration of the Lake's water quality from effluent, farm and forestry run-off and erosion is the fundamental and unifying issue for the area. Closely linked to this is the undermining of the



natural integrity of the Lake and immediate environs. (The very porous nature of Taupo soils mean that land discharges made their way into waterways relatively quickly, resulting in the under performance of conventional effluent disposal systems).

Lakeshore Reserve Scheme encountering difficulties securing Central Government funding for acquisition, as well as difficulties with Government agencies wishing to retain the land for other uses.

The mandatory Lake Taupo Catchment Control Scheme (1976) proving very successful in controlling erosion, but not other concerns.

**Haphazard Urban Settlement Around the Lake Margin**

Piecemeal development at the lake margin contributing to contamination of the lake, created physical and economic difficulties for the provision of public services, access and competing use difficulties, and detracting from the lake's natural character.

**The Continued Development of Geothermal Energy Resources**

Electricity generation plants considered a



mixed blessing for the District. While initially attracting a large workforce to the area – bringing economic benefits – the majority of the workforce left after construction was completed, leaving an economic and social vacuum. Environmental problems were also identified, such as changes in water flow patterns (both fluvial and geothermal), discharges of concentrated contaminants, resource access / use competition and diminished aesthetics such as the destruction of the Wairakei thermal valley.

### **Transportation and Connection**

The isolation of the District from key market areas is an impediment to the exploitation of the District's raw material resources. Thus the improvement and expansion of the roading networks a priority, including the investigation of rail transport to the eastern side of the lake.

### **The Diversification and broadening of the District Economy**

The desire for industrial development and expansion for the District's economic wellbeing, was balanced by concerns regarding pollution and a trend towards reliance upon one form of industrial activity (i.e. forestry).

Attracting a larger, balanced and permanent population structure, without undermining the quality of the natural environment

### **The Continued Development of Tourism**

The benefits of expanding the recreational tourism industry, balanced against issues of seasonal population fluctuations, access and competing uses (both within the industry and with other industries, as well as between residents and visitors).

### **The Continued Development of Forestry**

Exploitation of indigenous forestry (at that time 20% of New Zealand's indigenous forest lay within the TUC). However, problems associated with utilising the resource included competition for land use, erosion, reliance on fluctuating overseas markets, pollution (including fertiliser use) and wood waste disposal problems, identifying appropriate processing sites, and damage to roading infrastructure from logging trucks.

### **Land Tenure Difficulties**

Much of the District's land under Crown ownership or control. Often the management practices of these blocks were inconsistent with the policies and requirements of the TUC or member Council's. Furthermore, the land was unavailable for alternative private development / use, or for Council acquisition for urban or industrial expansion. Similarly, large areas of land were in multiple Maori ownership, and perceived as not being used to its full potential.

### **The Continued Development of Farming**

A reliance on and predominance of extensive pastoral practices, the limitations imposed by the pumice soil and climate, few rural services in remote places, and limitations from too few rural water supplies. Rural-residential land perceived as being in conflict with "valid rural practices", and detrimental to the lake by drawing the population away from urban centres.



## The Continued Development / Use of National and Forest Parks

The Crown-managed National and Forest Parks perceived to be under utilised, and out of sync with the surrounding District. For example, the provision of accommodation and services for the Parks from centres such as Turangi and Tokaanu not fostered, despite the potential benefit to the purpose and operation of those Parks. Greater cooperation / coordination required

## Waikato Valley Authority

### Catchment Control for Lake Water Quality Protection

1973. Catchment Control Scheme in parallel to the Central Government-Taupo County Council-Taumarunui County Council Lakeshore Reserve Scheme. The scheme designed to control Lake Taupo Catchment erosion and soil nutrient loss by:

1. Excluding stock from water courses and eroding hillsides by fencing, planting stream banks and hillsides.
2. Retaining swamp areas for water retention during high rainfall.
3. Retaining stream bed works and structures to control water flow.
4. Placing encumbrances on land titles when blocks were subdivided to ensure protection of water course protection works.

## Taupo District local government reforms

1962 onwards. Taupo County and Borough expressed a desire to unite with the purpose to better administer the wellbeing of the Lake Taupo catchment. This was resisted by Taumarunui County Council who wanted to retain jurisdiction over the western side of the Lake.

1962. Mangakino was declared a Taupo County town with its own elected members under the administration of the Taupo County, and the following year Waihi village was included in the Taupo County. Over the following years, urbanised areas around Taupo Town became part of the Borough, concluding with Wharewaka Point in 1982.

1989. Taupo Borough, Taupo County, and part of Taumarunui County finally amalgamate creating the Taupo District of today.

2000. Taupo District Council notifies the Proposed Taupo District Plan under the RMA 1991. The Proposed Taupo District Plan replaced the "activity based" approach of zoning and segregating land use activities, by adopting an "effects based" approach where activities could locate anywhere, provided they were designed to be compatible with the surrounding environment in terms of the character, scale and intensity of the effects of the activity.

In the same year, a structure plan was prepared for the Taupo urban area to manage the infrastructural requirements for growth, including timing and costs of developing various growth areas. Since then structure plans have also been prepared for the Taupo Town Centre, and the Kinloch community



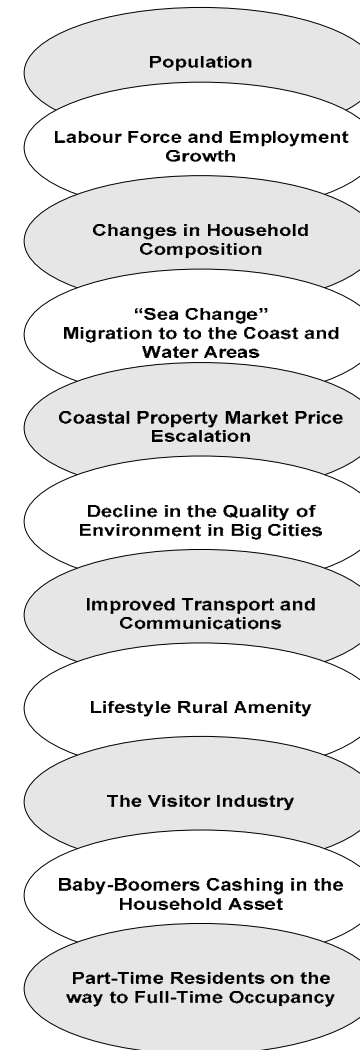
## 5.2 Contemporary challenges

As the District moves ahead the challenges facing it are driven by both internal and external factors. While not all can be controlled or influenced, it is important for future planning to be aware of them.

The key growth drivers are factors such as:

- ➔ Population growth, including local and international migration
- ➔ Labour force and employment growth, since as the population increases, there are more people in the workforce
- ➔ Changes in the nature of household composition as a result of demographic change e.g. fewer family households, more single and childless households
- ➔ "Sea change" factors such as
  - ~ baby boomer aging
  - ~ the need to cash in a portion of the primary house investment to help fund retirement
  - ~ declining levels of amenity/safety and transport frustration in larger cities
  - ~ the quest for coastal/rural countryside/recreational lifestyle amenity
  - ~ the influence of technology
- ➔ Economic activities such as a domestic and international visitor industry

Figure 8 Drivers affecting growth



## District Character

The character of the District's urban areas has been formed by the processes and interactions of natural and human environment. The mountains, the lakes, the rivers, and the development of the District's communities and settlements give it a sense of place.

### The Contribution of Tangata Whenua

The contribution of Tangata Whenua has taken a number of forms. These contributions include the Tongariro National Park and other parts of the Department of Conservation Estate. Land was also given to local authorities for core public works such as roading and schools. In addition to that land given it is also recognised that land was taken by the Crown through compulsory acquisition such as some of the lakeshore reserves. Tangata Whenua are also acknowledged as major developers of land around the District in terms of residential and commercial activities.

### Evolving Sense of Character and Identity

The sense of character and identity of the District will continue to evolve over time. Taupo Town continues to grow and mature while other more recently settled areas around the District like Mangakino face changes in developing the social and economic fabric of their communities. Acknowledging this change over time is an important part of managing the effects of growth, however at the same time care must be given to protecting those elements which are important to the community.

## Lifestyle Destination

A specific challenge facing the District is its growing attractiveness as a lifestyle destination compared to New Zealand's major urban areas. People all over the western world want to live in the sun and close to the water. The Taupo District fits within this mould and as such is becoming increasingly popular both nationally and internationally. This trend of strengthening inwards migration has significant impacts on the type of growth that the District will face and the effects of that growth.



### Holiday Homes

Coupled with Taupo's attractiveness as a lifestyle destination there is a growing demand for holiday homes within the District. These second homes raise issues about the types of services that need to



be provided, significant peaks in population and social implications within the District's communities.

### **Lifestyle Blocks**

Outside of the urban areas there are also challenges to the character of the District's rural areas. Following national trends, Taupo has seen an increasing demand for the creation of lifestyle properties of 4 hectares or less. This pressure has been most strongly felt to the west of Taupo Town, around Kinloch and increasingly around the south western lakeshore settlements. This trend is creating change in the rural areas and is affecting their established character.

### **Geothermal Energy Development**

The existing rural character is also being challenged by other land uses. The growth in geothermal energy utilisation has the potential to see more industrial style activities locate in the traditional rural environment.

A risk adverse approach should be taken to new areas of residential development of land adversely affected by net extraction from geothermal systems, or located on flood plains.

There are opportunities to limit future land use conflicts within the Geothermal Systems that as yet are undeveloped but have been classified by Environment Waikato as "Development Systems". Currently there are predominantly pastoral farming and forestry activities on land underlain by the geothermal resource and it is likely that such uses could co-exist with development of the geothermal energy resources.

### **Pastoral Farming**

There are also adaptations underway with regard to pastoral farming. Large pastoral farms, particularly down the western side of the Lake Taupo, are starting to consider changes in land use practice as concerns about lake water quality grow and regulation starts to take effect. Land owners are increasingly having to look at alternative farming and land use practices to deal with these issues. Conversely, there are also large areas of forestry which lie outside of the Lake Catchment which are now beginning to convert to dairy, sheep and beef farming. Both these changes pose challenges for the District in terms of environmental effects, rural population growth and infrastructure requirements.



## Outstanding Landscapes & Natural Areas

As the District continues to grow individual developments place pressure on the landscapes and key natural areas within the District. Maintaining a balance between the need for economic growth and the need to protect the environment within which people live, work and play is an ongoing challenge.

In recent times the strong urban growth of the District has been felt most acutely in the lakeshore settlements and to the west of Taupo Town and around Kinloch. The outward spread of existing urban areas is starting to place significant pressure on the landscapes which have given context to these urban areas for so long. This tension of people wishing to live in close proximity to water versus a desire to keep development back from the Lake will continue to be a challenge given concerns over water quality and landscapes

These landscapes are also under threat from a growing trend of more dispersed residential activity. As people demand their own “piece of paradise”, residential development is starting to spread into areas of the District that were once relatively isolated and therefore maintained their relative wilderness character. The impact on these areas from sustained growth is of major concern to the community, particularly as these areas tend to be in close proximity to the lakeshore.

While the impacts of growth on the landscapes of the District are significant, less visible are the impacts on the District’s natural features and areas of natural vegetation. Spreading urban development is reducing not only the size of these areas of natural vegetation but also the linkages between them. Maintaining the biodiversity of the District is important not only to the inhabitants of the District but also to the region and future generations.

Tourism has a strong role within the local economy and is largely based on the natural environment. Therefore the management of growth must consider the protection of the natural environment and landscapes. Bearing this in mind specific consideration must be given to the District’s scenic corridors. Places like the entrances to Taupo, Turangi, State Highway One down the eastern side of Lake Taupo, the Western Bay and the Desert Road, are all examples of landscapes that need to be protected because of their intrinsic importance to the tourism sector.

## Settlement Patterns & Urban Form

### Urban Form: Moving from Low Density to Sustainable Living

With a national and global move toward more sustainable living Taupo District must consider how the form of its urban areas contributes to that goal. The urban form within the District is traditionally of a relatively low density. Rather than consolidating, the District’s urban areas have tended to spread out.

A major issue challenging the District is whether it can continue this pattern or whether the shape of its urban areas needs to be better defined. The answer to this problem will have significant effects on the character, social and economic nature of the urban areas.

### Land Supply

To ensure that the different urban areas can continue to grow there needs to be a supply of land for development. Historically the supply of land has ebbed and flowed depending on a wide range of factors.



Managing these factors and ensuring a supply into the future is an important challenge to avoid significant adverse economic effects.

Traditionally the leasehold land that has been developed in the District has been restricted to high value residential development such as at Hatepe. With increasing pressures for land supply and issues of housing affordability there are growing opportunities for leasehold land to be used for a range of land uses such as tourist ventures, commercial uses or affordable housing.

### **Servicing Constraints and Opportunities**

Another important element of the urban form is efficiency of servicing. With increasing demand for reticulated water and wastewater services and future demand for public transport, it is important that future growth is located to achieve efficiency and affordability. With limited funds available the provision and timing of infrastructure needs to be a major consideration in the location of future growth areas.

### **Geothermal Risk**

In seeking to accommodate future growth, recognition must also be given to the geothermal systems which affect the town of Taupo. These systems are currently being utilised for energy generation, however that generation can have significant effects. Although parts of the existing urban area of Taupo are built over the geothermal resource, the location of future growth in relation to this resource needs to take into consideration the growing knowledge of the geothermal extraction and its risks.

### **Large Format Retail and Business Land**

The trend of large format retailing is starting to make its effects felt within Taupo with its development more a matter of “when” not “if”. Managing the location of such activities is important given the effects that they can have on transport flows, economic investment and the function and viability of existing town centres. Previous public discussion has signalled concern about the establishment of retail along the proposed East Taupo Arterial in terms of both aesthetics



and the adverse effects on the Taupo Central Business District.

Also emerging as an issue is the lack of a significant commercial centre to the west of the Waikato River. There is substantial residential growth underway and planned for the area west of the Taupo Central Business District. If this new development is solely reliant on the central business district for servicing there will be unsustainable pressure on the transport corridors feeding in. This dependency also reinforces reliance on cars as the primary mode of transport.

### **Lake Orientation**

Another issue impacting on the broader urban form is the orientation of the Taupo Town Centre. At present State Highway 1 severs the town centre from both the Tongariro Domain and the lakefront. This disconnection is an ongoing issue with regard to the form of the Taupo Urban Area and work needs to continue on addressing this as part of managing the growth of the town.

### **Marina**

Finally, a more specific need which is starting to emerge is the lack of adequate marina facilities. Lake Taupo is prized as a recreational playground for locals and visitors alike with much of this recreation involving boating activities. Recent research has shown that there is increasing pressure on existing marina facilities and it is clear that provision will need to be made for future facilities to meet this growing demand.

### **Well Designed Places**

The development of the District's urban areas has often occurred in a sporadic manner with the next neighbourhood building on the previous one or sometimes not at all. This pattern of neighbourhood development has been a

result of liberal controls on development. While a liberal approach has certainly allowed for variation between neighbourhoods it has not always meant good integration between and within them.

With a trend toward higher density development the quality of the urban areas becomes increasingly important. The challenge for the future is to ensure that development reflects key urban design elements to ensure a high quality built environment.

As part of designing sustainable neighbourhoods, and therefore sustainable urban areas, consideration needs to be given to the issues of air and water quality, waste minimisation and the generation of greenhouse gases. Also emerging as a substantial concern is the efficient usage of energy and water. Designing places that address these issues will assist in creating more sustainable living environments.

### **Strong Communities**

Perhaps one of the biggest challenges facing a growing district is the balance between the provision of physical infrastructure like roads and pipes and community infrastructure like schools and libraries. While the physical infrastructure is a necessity it is often forgotten that the community infrastructure is just as necessary if a community is to provide for all the needs of its members.

### **Prioritising Social and Community Infrastructure**

Because of its relative "youthfulness", provincial standing, and limited population the Taupo District does not have the same level of community facilities that larger cities do. Ensuring that the



community infrastructure needed to support and meet the community's aspirations is provided will be an ongoing challenge.

With the greying of the District's, and for that matter the Country's population, there will be changing demands for housing type and location. There will also be an increased need for diversified medical facilities and accessible public transport.

### **Housing Affordability**

A key component of housing provision is affordability. Taupo Town finds itself beginning to face some of the issues that other tourism and lifestyle destinations such as Queenstown and Nelson have had to address. With growing attractiveness as a lifestyle destination, and strong external investment in the market, Taupo house prices continue to rise. This in turn makes it increasingly difficult for people to purchase a house.

One of the flow on effects for local businesses is greater difficulty in attracting and retaining employees. This in turn may result in those less wealthy groups of the community having to relocate to outlying areas and commute further to employment centres. While this may be a market solution to the problem of affordability it can have serious effects which weaken the fabric of the community. It also means greater dependence on the car and communities which are generally less accessible.

### **Tangata Whenua**

#### **Major District Land Owners, Conservationists, and Developers**

Maori currently own close to half of all the land in the District, including the bed of Lake Taupo. As a tribe Ngati Tuwharetoa has historically taken a

proactive approach to development, evidenced through the development of the Lake Taupo forests in the 1970s, and the large farms in the Western Bays and Tauhara areas.

There is also a significant amount of undeveloped Maori land with potential for more intensive development. Much of this is in close proximity to Lake Taupo and is currently used for a range of different land uses. Many of these areas are valued by the broader community because they form a natural backdrop for the lake and its environs. While some of those areas have been leased to the Department of Conservation on short term lease agreements, Maori owners predominately do not receive any income or return on these land areas. It is inevitable that these foreshore areas will become increasingly attractive for development as land prices continue to increase.

#### **High Proportion of District Population and High Growth Rate**

Maori currently comprise approximately one third of the total population in the District. Demographic trends suggest that this will increase by 2050. This population increase is coupled with a nation wide trend of Maori wanting to return to live on their ancestral lands. This is likely to result in an increased demand for papakainga development on multiply owned Maori land. This is something which the Council would wish to support through its future planning. However, this trend may present some future servicing challenges, particularly in relation to new regional council rules for lake water quality. In addition, some of these developments may occur on areas valued by the broader community for their landscape or natural qualities.



## Maori Land Tenure and Development

The development of multiple owned Maori land is progressively becoming a key player in the development of the District. Legal and administrative requirements mean that future development of Maori owned land is most likely to occur on a leasehold basis other than freehold tenure. This has been evidenced through a number of recent development proposals in the Acacia Bay area. This trend is likely to continue into the future given increasing land prices and the national demand for water edge real estate. However, it is noted that legislation and ownership constraints often mean that multiply owned Maori land is developed at a slower rate compared to privately owned land.

There is also uncertainty at present in relation to the land subject to a Treaty of Waitangi claim.

At present Ngati Tuwharetoa as a tribe have indicated that they are still determining their future development aspirations for their land. Many of the specific land owning trusts are in a similar situation. Taupo District 2050 will be reviewed in 2008 and thereafter on a three yearly basis. Those reviews will be able to take into account the views of Ngati Tuwharetoa as they evolve over time..

## Sustainable Economy

### Visitor Industry

The visitor industry is very significant in the Taupo District. Visitors contributed \$396 million to the local economy in 2003, mostly from overnight, domestic visitors. Events are a large part of this, providing an estimated \$80 million per year. The Tourism Research Council NZ has forecast an increase in visitor

numbers to the District from 2.52 million in 2004 to 2.9 million in 2011 (increase of 1.9% per year). The visitor industry is set to remain as one of the most important industries for the District.



*Integrated planning for sustainable growth*



## Renewable Energy

Of major significance to the local economy and of importance at a national scale is the development of renewable energy resources. The Taupo District is rich in both geothermal and hydroelectric energy resources. Historically the emphasis has been on the hydro power schemes which played an important part in the District's urban development through the establishment of towns like Mangakino and Turangi. In more recent decades exploitation of the geothermal resource has gained momentum.

Wind power is an energy resource currently not utilised in the District but which may need to be investigated in the future as more traditional energy sources become less viable.

## Hydroelectricity

There are a number of dams and reservoirs associated with the Waikato Hydro System and Tongariro Power Development located in the Taupo District. Hydro reservoirs now have established lake environments that provide a range of recreational opportunities and in some areas lifestyle opportunities. Careful planning is required to ensure the operational requirements of the hydro systems are not compromised whilst also enjoying the benefits of the riverine and lakeside landscapes.

## Geothermal Energy and Risk

In terms of resource management, it is Environment Waikato (EW) which regulates the use and development of the geothermal resource in the region, with the Taupo District Council being responsible for land-use regulation. Through its Regional Policy Statement and Regional Plan, EW has established a comprehensive policy regime for the sustainable management of the regional geothermal resource. In broad summary, the policy approach taken is to classify some geothermal systems for development and others for protection.

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 geothermal power stations at Poihipi Road and 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.

Whilst providing considerable opportunities the Wairakei-Tauhara development geothermal system which underlies most of the urban area of Taupo Town is an existing physical and administrative constraint in the management of urban growth. Large tracts of land are currently unavailable for conventional residential urban development due to geothermal encumbrances and easements restricting use. Hot ground, differential land subsidence, and potential reverse sensitivity conflicts with existing operations also restrict urban growth.

There is the potential for competition between geothermal development activities on one hand and urban development on the other. Council recognises the need to reflect the provisions of Regional Plans and Policy Statements in order to achieve sustainable outcomes for geothermal activities and urban growth.

By acknowledging the geothermal resource and coordinating the pattern and distribution of urban growth, Council can manage land-use dynamics, and avoid, remedy or mitigate potential reverse sensitivity conflicts. It is for this reason that this strategy does not promote urban growth over geothermal

systems other than that future development already identified in the Taupo Urban Structure Plan.

At the same time, the potential adverse effects of geothermal resource development (such as the migration of heat, alteration to vegetation, land subsidence, etc.) need to be transparently monitored. The geothermal energy sector will have an obligation under existing consent conditions to keep the community well-informed of their future development plans for the geothermal resource.

A growing trend within the District is the location of new industry in close proximity to the geothermal resource. The development of glasshouses heated with geothermal energy, the kiln drying of timber and some tourism activities all show that there is real potential for geothermal energy to be further developed. Greater flexibility in future planning will be needed to ensure that this trend is able to continue.

### **Diversifying and Broadening the District Economy**

Currently the economy is based around tourism, the energy sector, forestry, agriculture and construction. The concern remains that the economy is not diverse enough to withstand a significant down turn in the primary or tourism sectors. Encouraging a more diverse base remains a significant challenge.

### **Business Land Requirements**

One of the other principal issues facing the District economy is the availability of land for commercial and industrial use. Just as the



supply of land affects residential land prices, so a similar effect results in escalating commercial and industrial land prices and high rents.

Because the Proposed District Plan does not strategically zone land for future purposes the development sector finds that expansion of commercial and particularly industrial areas often means expansion into the rural environment. Coupled with this is a lack of forward infrastructure provision. With no certainty about where future industry may locate infrastructure providers are similarly reluctant to invest in the forward provision of infrastructure.

A more specific issue, which affects the growth of the Taupo Central Business District, is parking. As this commercial hub of the District grows and visitor numbers increase, there is mounting pressure on the parking resource largely managed by Council. The way that this is managed has a substantial effect on the rate and direction of growth of the Central Business District. Leadership and careful management will need to be provided to ensure that parking does not become a constraint on further economic growth.

### **Integrating Land Use, Infrastructure, & Funding**

Infrastructure is a cornerstone of future growth. Its availability facilitates and can encourage growth while its absence acts as a deterrent. Like many growing districts Taupo faces a number of significant issues related to infrastructure.

Much of the District has been built on physical infrastructure that is nearing capacity and needs substantial upgrades. This situation is exacerbated by the sustained growth in recent years.

### **The True Costs of Growth**

When demand for these vital services starts to outstrip supply there is increased pressure for further capital investment. The challenge of who pays for this capital expenditure and when affects all of the community. The timing of payment for capital infrastructure may mean that either the Council or the development sector has to act as banker for a substantial period of time.

In addition to these capital costs there are the ongoing operational costs for the life of the infrastructural asset. With most basic infrastructure eventually being adopted by the Council these mounting operational costs must also be considered.

As such there are sound financial reasons for managing growth in a manner which ensures that infrastructure is provided in a timely, efficient and affordable manner. A final issue is the protection of infrastructure in the long term. With encroaching urban areas, water, wastewater and waste management facilities face growing concerns about the effects that those operations may have on more sensitive residential uses. Protection must also be provided for key sites and particularly transport corridors to allow for future expansion and upgrading.

### **Transport Modes & Connections**

The State Highway network provides the Taupo District with significant opportunities to facilitate access within and beyond the District. Despite this Taupo faces a substantial challenge as national policy, expressed through Transit New Zealand, seeks to minimise



the local use of the national state highway network. Creating balance between these tensions is key to ensuring good access between the District's urban areas.

### **Eastern Roding Corridor - Eastern Taupo Arterial**

Like other infrastructure elements, the provision and timing of transport corridors has a considerable effect on the management of growth. The timing of the proposed East Taupo Arterial will affect a range of other major infrastructure projects, not only because it needs to be completed before other flow on projects can physically take place, but also because such a significant project ties up substantial amounts of capital expenditure.

### **Western and Northern Roding Corridors**

While the East Taupo Arterial is important, improvement of the transport corridor to the north of Taupo Town is equally vital to ongoing growth. With much of the future growth of the District being located to the west of the Waikato River, there will need to be major improvements to the intersections of Poihipi Road and Norman Smith Street with the State Highway. Additionally the Control Gates Bridge acts as a major constraint on continued growth to the west. The timing of improvements to this corridor is a major factor affecting ongoing growth of the District.

### **Air Travel**

An assumption has been made that the airport will remain in its current location until 2026 (in accordance with the adopted Management Plan). However it is considered prudent for Council to consider the potential expansion of the airport and its possible relocation well before 2026. Air travel is an important mode of travel which provides flexibility and choice and

ensures that Taupo is connected both nationally and internationally. Changes in technology may provide additional options when considering the airport's future.



## Integrating Transport Modes

As part of this broader focus on corridors rather than roads, consideration must also be given to future public transport options. As Auckland has demonstrated, public transport is vital to the functioning of a growing urban area. Although Taupo has yet to realise such a demand, increasing fuel prices and environmental concerns will mean that public transport becomes increasingly important.

The key to providing public transport in the future is to build in flexibility now by ensuring that transport corridors are large enough to cater for a variety of options.

Although a part of the broader infrastructure, transport has such a significant part to play in growth and urban form that it is singled out. It is important to note that transport is not limited to the car but includes public transport, walking, cycling and other alternatives such as air travel or rail. This variety of travel modes means that transport corridors become more important than just roads.

In looking to the future it will be crucial that the pattern of urban areas integrates well with the existing and proposed transport corridors. Without such integration sustainability will be unattainable.

Achieving sustainability is critical in order for Council to comply with

- Part II of the RMA 1991
- Local Government Act 2002
- Requirements of the Land Transport Act 2003 relating to environmental sustainability.



## Water Resources

Water quality has emerged as one of the key issues for the District and the region. Lake Taupo is currently in relatively good condition compared to the Rotorua lakes to the north. However the warning signs have been identified and all sectors of the community agree that action must be taken.

While water quality is an important issue for the Taupo District Council it must be recognised that within the legislative context Environment Waikato has the lead. For this reason it is Environment Waikato who is pursuing Variation 5 to the Regional Plan to control nitrogen discharges in the Lake Catchment. Taupo District Council will continue to have a supporting role through a range of actions.

This challenge has a number of effects which impact on a range of areas. As noted earlier, greater regulation of nitrogen discharges to the Lake may result in changes to the pattern of land use around the Lake which may have a subsequent effect on the character of rural areas. It is noted however that Environment Waikato's regulation of nitrogen discharges is not automatically in conflict with the Taupo District Council's role in managing the effects on amenity and character of the rural environment.



In the future there may be further consideration of the impact of phosphorous on lake water quality. At this point in time Variation 5 to the Regional Plan has taken a “watching brief” approach to phosphorous discharges. Taupo District Council supports this approach and through its involvement with Environment Waikato and Variation 5 will therefore respond to any change in this approach as necessary.

### **Wastewater Upgrade and Investment**

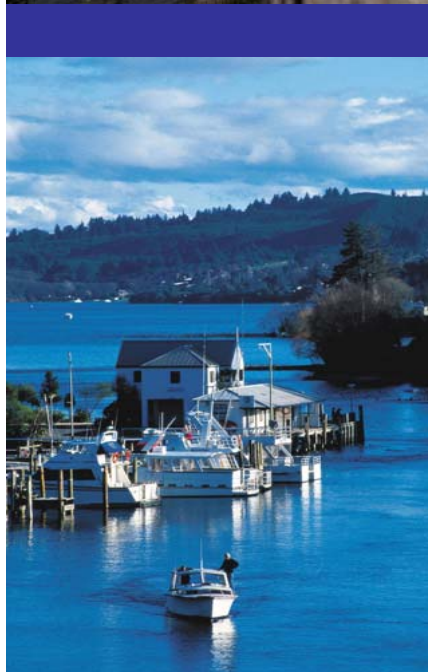
Water quality is emerging as a strong driver for an increased investment in wastewater networks to ensure that the manageable load of nitrogen discharge from these systems is addressed. This increased investment has substantial cost implications but may also act as an incentive to create areas of denser residential development.

### **Stormwater Upgrade**

Stormwater and its importance in terms of water quality is also emerging as an issue. While much of the focus has been on the flow of nitrogen into the Lake, the adverse effects of poorly treated stormwater are becoming better understood. This may place another constraint on the development of further urban areas in close proximity to the lake.

### **Other water bodies**

Whilst much of the community’s focus has been on the water quality of Lake Taupo, consideration must also be given to



the water quality of those water bodies outside of the lake catchment in particular the Waikato River. Environment Waikato are beginning a work programme which looks at the effects of agricultural land uses on soil and water quality with the Waikato River catchment (from Taupo Control Gates to Karapiro Dam) targeted as a specific project. Taupo District Council have identified that they wish to be involved in this ongoing work.

### **Water Allocation**

The value of water as a resource is becoming more widely acknowledged, both in New Zealand and internationally. Currently under the Resource Management Act 1991 water has been allocated on a first in first served basis. The Central government has recognised the inequalities in this approach and has begun work to determine which approach provides for the sustainable management of water and its allocation (Sustainable Water Programme of Action). Environment Waikato is currently developing policy guidance on this issue. Until that work is further progressed it would be inappropriate for Taupo District Council to undertake further work, however it is likely that further work will be required with regard to demand management of the water resources and as such an action (TDC 3.20) has been included in the implementation plan in section 11.





### Open Space Networks

Unlike many other places the Taupo District has historically offered the chance to escape and experience the wilderness. Residents and visitors alike still seek that experience; however the opportunities to do so are increasingly threatened by the encroachment of urban living.

The pressure is felt strongly along the western side of Lake Taupo. Historically isolated, this area of the District is becoming more attractive for residential and commercial tourism opportunities. Preserving the relatively natural character of the western lakeshore, and other notable areas, is an important consideration in the face of mounting pressure for recreational opportunities.

It is important to note that the Department of Conservation plays a key role in the management of the District's open space network. With ongoing funding issues and different roles for both the Department and the Council, it will be necessary for the two to work in partnership to achieve an effective and affordable open space network.

### Open Space and Urban Form

The other major issue facing the District's open space network is its role in the broader urban form. Reserves and areas of open space are seen primarily as recreational assets for the community. What has sometimes been missed is the significant impact that they have on the shape and character of urban areas.

The areas of open space break up the built environment which is dominated by buildings and roads, they provide boundaries through greenbelts and natural features and they provide an important link between the built and the natural environments. The preservation and proactive management of the open space network is an element of urban form that is just as important for the growth of the District as roads and water supplies.

### Leadership, Partnership, & Collaboration

Addressing the issue of leadership in managing growth is a primary role of this strategy. The Proposed District Plan is the primary regulatory tool used to manage the effects of activities involving the use and subdivision of land. It has not been designed to strategically zone land like many previous district plans. Instead it is based on a philosophy where any activity can establish anywhere as long as it is able to prove that it will not have substantial adverse effects.

While this philosophy has been successful on a case by case basis, and has allowed the development sector significant flexibility, it has not dealt as well with the potential and actual cumulative effects. The other substantial concern is the lack of direction for the

community and development sectors with regard to where and how the urban areas will develop.

### **Taupo District Council and Regional Council Partnering for Taupo District 2050 Implementation**

Of particular significance is the ongoing partnership between the Taupo District Council and the regional councils. While Taupo District interacts with four different regional councils the strongest relationships are with **Environment Waikato** and **Environment Bay of Plenty**.

With Taupo District being such an important part of the ecological region of Waikato there is a growing role for the regional council in the management of growth. This will be expressed through a range of strategies and plans. However as with any partnership there will need to be recognition that dialogue goes both ways. The strength of this partnership will continue to have a substantial influence on how sustainable the growth of the District is.

Similarly, Taupo District looks to the Bay of Plenty for many transport and economic reasons. Strengthening these ties will also be important for the ongoing growth of the District.



### **Strategic Partnerships for Taupo District 2050 Implementation**

Along with providing leadership for the direction of future growth, the Taupo District Council must work in partnership with others. Not all of the planning and provision for growth can be done by the Council and nor should it be. Agencies like the **Ministry of Education** and the District **Health Board** provide vital services to the community.

Strengthening partnerships with such organisations is a major challenge moving forward.

It is important that as much as possible key partners like **Contact Energy, Landcorp, the Department of Conservation, Mighty River Power, Ngati Tuwharetoa and Transit** are moving in the same direction as the Council in relation to growth. As has been shown in the past, conflict between these parties has the very real potential to derail

planning for the future and adversely affect the well being of the community. While agreement is not always possible, understanding and co-operation is needed to achieve the vision for the District.

It is important to also involve other Central Government agencies such as the Ministry for Economic Development who have primary responsibility for the Wairakei Tourist Park, which is a key tourism resource offering significant opportunities for further redevelopment.



