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Executive Summary

The need for a holistic approach to managing growth in Kinloch was driven by community concerns and a strong desire to protect the unique environment of the Kinloch settlement and its environs. Taupo District Council has responded to these concerns by issuing a brief requiring the preparation of a community structure plan to:

- Recognise community values and aspirations
- Provide for the foreseeable needs of future development through an integrated approach to infrastructure planning
- Provide a more detailed level of managing growth and development than the Proposed Taupo District Plan or the Transitional District Plan.
- Put in place a strong policy framework to recognise the values that give Kinloch its unique environment, and provide for future infrastructure requirements.

In order to meet these outcomes, a process was developed to enable consultation to occur on a detailed level with the community, key stakeholders and iwi. A number of community and small group meetings were convened from the period commencing May 2003 to January 2004. This timeframe catered for the seasonal nature of the settlement, and ensured that all sectors of the community were able to participate.

The consultation process resulted in the culmination of 10 key issues, which provided the framework for the development of community Objectives and Policies. These 10 issues are:

- The need to recognise the uniqueness of the Kinloch settlement, in particular the layout of the existing streetscape.
- Provide mechanisms that retain and enhance the existing high level of amenity and character through the built environment.
- Assist with the management of new subdivision and development in the structure plan area, and provide guidance to the community and developers.
- Provide mechanisms for the protection of identified areas of native and regenerating vegetation.
- Provide for the relationship of tangata whenua with the land and water, including identified cultural and heritage sites.
- Provide tools for protecting and enhancing scenic reserves and natural areas.
- Identify the need for new reserve areas to cater for the communities recreational needs.
- Allow for appropriate commercial development that is consistent with the amenity and character of the Kinloch settlement.

- Identification of, and provision for, future infrastructure requirements to service the community.
- Identify and demarcate the boundary of the structure plan area.

A structure plan is a strategic tool used by Council to proactively plan and outline the requirements for future infrastructure and to provide for and compliment new growth in a geographically defined area. The Kinloch Community Structure Plans adds an extra layer to the infrastructure and growth components, by taking into account and having regard to the existing amenity and character of the Kinloch settlement.

The structure plan is required to undergo the special consultative procedure under the Local Government Act 2002. Coupled with this statutory consultation process, the structure plan is notified for public comment, formal submission and hearings process through a joint Committee of Council. The structure plan is accordingly adopted by Council, and will take effect from this date.

It is anticipated that relevant sections of the suggested methods of implementation contained in the Structure Plan will comprise a variation/plan change to the Proposed Taupo District Plan in the form of a Kinloch Area Overlay. Coupled with this, the document can also be utilised in the assessment of resource consents as other relevant documents through Section 104(1)(c) of the Resource Management Act 1991.

Taupo District Council's Long Term Council Community Plan outlines an integrated strategy to ensure that appropriate linkages to related Council planning tools and strategies are formulated.



Lisland subdivision in the foreground set against the Kinloch settlement (C Kimpton)

Part 1 – BACKGROUND AND PROCESS

1 Introduction

1.1 Overview

Taupo District Council engaged Opus International Consultants to prepare a Community Structure Plan for the lakeside settlement of Kinloch. The settlement is located on the western shores of Lake Taupo approximately 14km north west of the Taupo Township.

The purpose of the Kinloch Community Structure Plan (the Structure Plan) is to provide guidance and direction to the developers and the community regarding new subdivision and development that occurs within the Kinloch area. Due to the extensive input and buy in to the Structure Plan process, the Kinloch residents, developers and the wider District community will have certainty that future growth can be appropriately managed in part through the Structure Plan.

To enable the Structure Plan to assist with managing growth, it must identify:

- The physical boundary of the Kinloch area.
- The areas available for future growth.
- The infrastructural components required to provide an appropriate level of development.
- The key natural features that should be protected from future growth.
- The existing amenity values and character that encapsulate the settlement of Kinloch.

The Structure Plan also provides a platform for medium term strategic planning that is able to be employed by developers, the community and Council. Although the Structure Plan is a stand alone document with its own objectives and policies, a variation or plan change is required to insert relevant parts of the document into the Proposed Taupo District Plan.

In terms of strategic direction, the Structure Plan provides a growth context for the next 20 years, which will:

- Assist with the sustainable management of future development in the Structure Plan area.
- Utilise a radial density pattern to increase the size of new allotments subdivided outside.
- Have as a fundamental strand running through the document, the protection of the water quality of Lake Taupo.
- Address the requirements of infrastructure in the Structure Plan area including:

- Provision for an indicative roading layout and hierarchy to ensure a sustainable roading network.
- Provision for indicative sites and locations of new reserves, recreation areas and appropriate public access.
- Provision for indicative sites and locations of new water reservoirs and waste water treatment irrigation disposal areas.
- Provision for an indicative stormwater layout to ensure a sustainable and natural stormwater system.
- Provide the basis for further development regulatory mechanisms to be included in the Proposed Taupo District Plan to maintain the amenity and character of the environment.

1.1.1 Kinloch vision

The Kinloch Community Structure Plan has a 20 year timeframe, but should be updated from time to time in conjunction with the Kinloch community as if it were a living document.

Over the next 20 years the Whangamata Valley will continue to be developed for residential and low density residential development. This will be guided by the use of three distinct bands of allotment density ranging from high density (800m² to mirror that of the existing Kinloch settlement) to low density (20,000m² or 2 hectares at Whangamata Road). It is anticipated that the areas abutting the structure plan will have a density of no less than 4 hectares. Although the structure plan encourages the use of similar designs and building materials to that of the existing settlement for new dwellings, modern designs will start to appear in the structure plan area.

All development in Kinloch will be reticulated for waste water and water supply. The use of existing onsite effluent treatment and bore water for potable drinking water will slowly be phased out following the expiry of resource consents throughout the 20 year period. Infrastructure to support future growth will be consented and commissioned during this timeframe. In conjunction with proposed Regional Council regulatory frameworks, the Whangamata Valley will contribute toward the district-wide low Nitrogen discharge solution required to prevent further degradation of Lake Taupo water quality past the 20 year structure plan timeframe.

The amenity and character of the existing settlement will be retained as much as practicably possible. However with the advent of lower density areas, it is likely that the character of the Whangamata Valley as a whole will alter.

The use of non-standard low-impact designs for stormwater and roading infrastructure will allow for not only a contiguous low-impact storm water system, but also enable 'smart thinking' in regard to future development. These low-impact design solutions will assist with enhancing the connectivity between the existing Kinloch settlement and new subdivision and development further up the Valley.

Reserve areas will be provided through development as is the current practice. However given the move toward lower density development, the need for passive recreation areas may decrease, while areas for active recreation will increase. It is anticipated that

Council, Environment Waikato and the Department of Conservation will work closely with the community to assist to conserve the Whangamata, Okaia and Otaketake scenic reserves.

1.2 Geographic Location

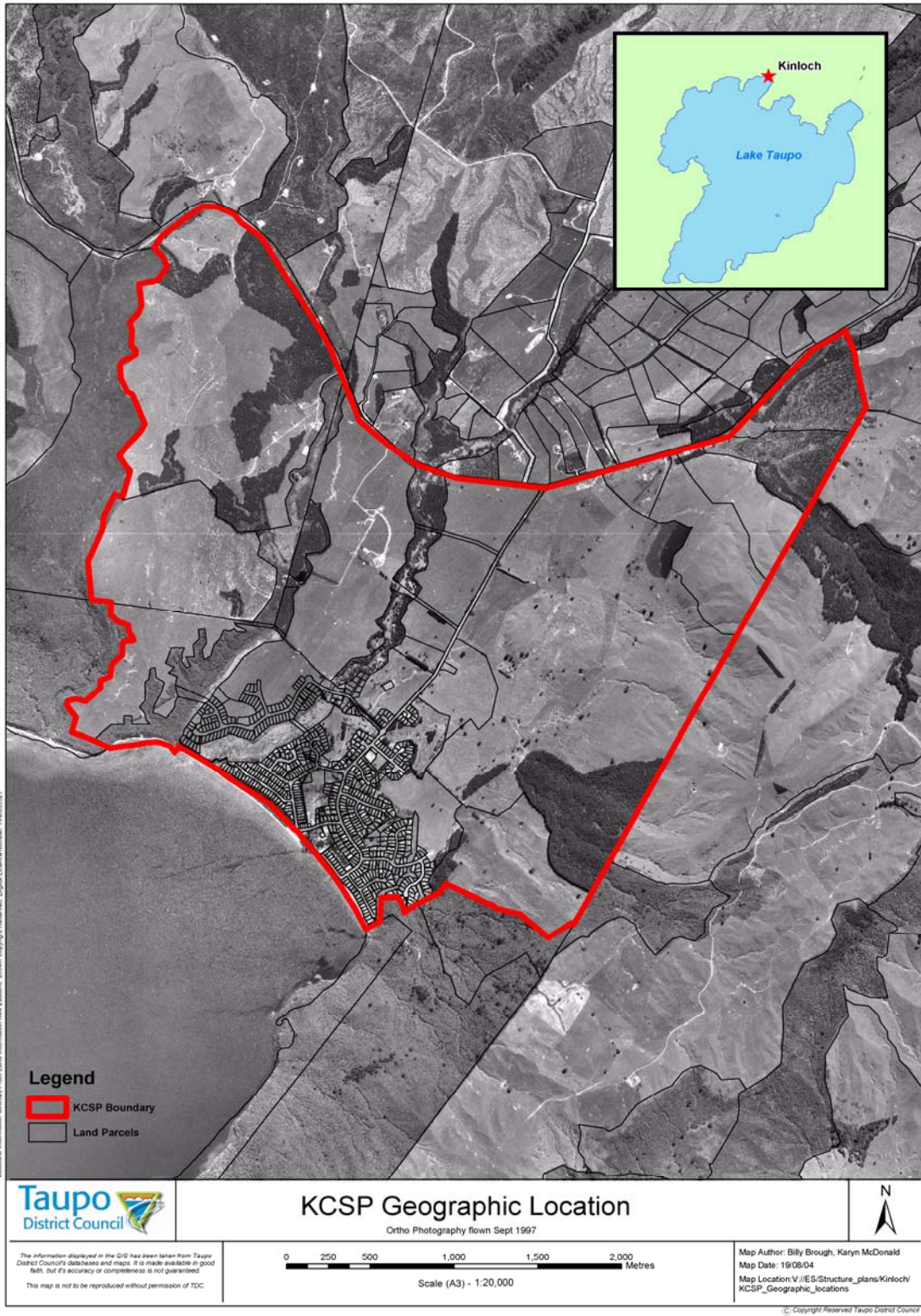
Kinloch is approximately 20km west from the Taupo town centre. It has only one access road into and out of the town via Kinloch Road. The Kinloch Settlement is located on the northern edge of Lake Taupo in a broad Valley enclosed on either side by two headlands extending into the lake, Te Kauwae Point to the west and Whakaroa Point to the east. The Structure Plan area covers an area of approximately 970 hectares as shown in KCSP Geographic Location map.

1.3 Structure Plans

Structure plans are proactive tools utilised to outline the requirements for future infrastructure to provide for and compliment new subdivision and development within a distinct geographic location. The Kinloch Community Structure Plan differs from other structure plans in that it seeks to add an extra layer to the infrastructure component, by addressing the existing amenity and character of the Kinloch Settlement.

The purpose of the Structure Plan is to:

- Provide guidance for new subdivision and development within the Structure Plan area.
- Assist with the development of appropriate standards to adequately address the effects of new subdivision and development within the Structure Plan area.
- Apply low-impact urban design principles to guide future residential development within the Structure Plan area.
- Recognise the existence of the Kinloch settlement, and the requirements of the community.
- Recognise the importance of the areas of natural value, scenic reserves and the unique headlands within the Structure Plan area.
- Recognise and provide for the requirements of new infrastructure within the Structure Plan area.



1.4 Extent of Study Area

The identification and demarcation of boundaries for the structure plan area is important as it defines both the geographical area for the Structure Plan, and the extent to which the document has effect. The headlands to the east and west of Kinloch (Whakaroa Point and Te Kauwae Point) and associated hill slope landscape features provide distinct geographical borders, as does Lake Taupo (Whangamata Bay) to the south. Whangamata Road to the north is a convenient physical boundary.

It is important to recognise that the Structure Plan area represents only a small portion of the greater Whangamata Valley catchment area. In limiting the study area, the Structure Plan is able to concentrate on providing essential infrastructure services that require a reticulated catchment such as water supply and waste water. Issues that relate to both the upper and lower catchment areas are dealt with in an integrated manner through both the Kinloch Community Structure plan and the Taupo West Rural Structure Plan.



Whangamata Bay, Lake Taupo

1.5 Structure Plan Methodology

The process of preparing the Structure Plan was based on the following assessments:

- An analysis of how the Structure Plan would integrate into the planning hierarchy employed by the Council and in particular the relationship between structure plans and the Proposed Taupo District Plan.

- A comprehensive analysis of land within the Structure Plan area, and the subsequent identification of key infrastructural requirements.
- A landscape assessment of the Structure Plan area, using aerial plans, information of the historical and cultural development of the area, identification of any constraints to development.
- An ecological assessment of the area based on a review of existing published information, aerial photographs of the site, photographic record and discussions with the landscape architect.
- A roading assessment of the area based on existing road patterns and the requirement for future roading needs.
- An infrastructure report prepared by Harrison Grierson Consultants on wastewater and water supply for the Structure Plan area.
- The development of a preliminary concept plan of the nine key principles based on the overall issues (See Section 2.2 and 7.5) for discussion and consultation purposes, including primary road and other infrastructure networks with areas for development, areas that should not be developed.
- A review of the Proposed Taupo District Plan rules and standards and how they related to Kinloch's built environment.
- Consultation with the community, landowners and developers within the Structure Plan area.
- Small group consultation with landowners, developers, key Government departments and iwi held over a period of 4 months October 2003 – January 2004.

1.6 Consultation

This Structure Plan provides for more certainty in managing new subdivision and development where sensitive receiving environments, important landscape and habitats of flora and fauna are identified. Community input was an important component of the Structure Plan as it had a dual purpose to ensure that all potentially affected parties were informed on the process and to identify key issues and concerns.

Consultation was carried out with the community and with key stakeholder interest groups from May 2003 to January 2004. There was strong support from the community for the development of the Structure Plan. It was recognised that development is occurring at a rate that there is potential for the existing amenity and character of Kinloch settlement to significantly change.

1.6.1 Key Principles and Community Feedback

Following on from initial investigative work and written feedback, 10 principles guiding discussion on future development and the Kinloch community were identified. These

principles were taken from the phase 1 of consultation and were discussed and expanded on at the small group meetings. The key issues identified were:

(a) **Streetscape**

To ensure that the existing streetscape context is taken into account for new subdivision and development in Kinloch, the following matters need to be considered:

- Walkways and cycleway
- Landscaping
- A sense of openness
- A sense of arrival ('gateway' to Kinloch)
- Visual corridor
- Setback requirements
- Linkages between streets and reserves

(b) **Built Environment**

Provide the basis for the development of new Performance Standards for the residential dwellings and associated structures that:

- Maintain and enhance the urban environment
- Bolster the existing standards in the Proposed Taupo District Plan
- Apply a Ridgeline Protection Policy Area
- Takes into account Shoreline Management and Natural Hazards
- Restrict the height of buildings and structures along the lake front
- Retains the rural outlook

(c) **New Subdivision and Development**

Assist with the management of subdivision design to ensure that development is not out of character with the existing Kinloch settlement, through the provision of:

- Access
- Roads
- Structures
- Landscaping and landscape plans as part of subdivision applications

- Pedestrian and cycleway connections
- Recreation, scenic and local purpose reserves
- Protection of sensitive areas
- Lot densities
- Ridgelines
- Drainage areas and stormwater management including stormwater management plans
- Earthwork management plans
- Cluster housing in low and medium density areas
- Protection of Lake Taupo water quality
- Setback requirements
- Apply appropriate site coverage for lot densities

(d) **Native and Regenerating Vegetation**

Protect identified areas of native and regenerating vegetation from new subdivision and development through:

- Landscaping requirements adjacent to these areas
- Restriction of development
- Setback requirements
- Provision for passive recreation
- Provision of ecological corridors
- Stormwater management

(e) **Tangata Whenua and Items of Cultural Heritage Value**

To recognise the relationship of Maori with their cultural and heritage sites within the Structure Plan area by:

- Acknowledge the relationship iwi has with the land and water
- Requiring consultation
- Protecting the integrity of buildings, objects, items and areas

- Setting appropriate buffer around known archaeological sites and require archaeological assessments

(f) **Scenic reserves**

To protect the Whangamata, Okaia and Otaketake Scenic Reserves including riparian margins from new subdivision and development through:

- Setback and fencing requirements
- Restoration and enhancement
- Restricted access points
- Stormwater management
- Protection of sensitive environments

(g) **Reserves and Open Spaces**

Provision for new reserves and open spaces that is able to be used for passive and active recreation. This will be provided through new subdivision and development and can include:

- Recreation reserves
- Green corridors and access ways
- Provision of car parking
- Esplanade reserves
- Alternative transport modes
- Pedestrian and cycle ways
- Other reserves

(h) **Commercial Node**

Provision for small-scale commercial development that is not out of character with the existing Kinloch settlement, through:

- Identifying a specific area(s) for commercial development
- Provision of buffers between different zones/environments
- Providing appropriate parking, access and signage
- Landscaping

(i) **Infrastructure**

The location and provision of existing and future infrastructure has been carefully considered as part of the Structure Plan area including wastewater treatment, roads, electricity transmission, telecommunications and water supply to ensure development can be serviced. The development of new infrastructure needs to be undertaken in a manner to ensure:

- Telecommunication and Electricity transmission infrastructure is placed underground where appropriate
- Development contributions or financial contributions are taken at the time of subdivision or land use consent
- The roading hierarchy is updated where necessary
- Land is to be vested for the irrigation of treated waste water
- All lots are connected with the wastewater treatment plant
- An appropriate setback from the wastewater treatment plant is implemented
- Compliance with the Engineering Codes of Practice for the Taupo District
- Compliance with performance standards for the development of infrastructure in the Proposed Taupo District Plan

(j) **Growth Strategy**

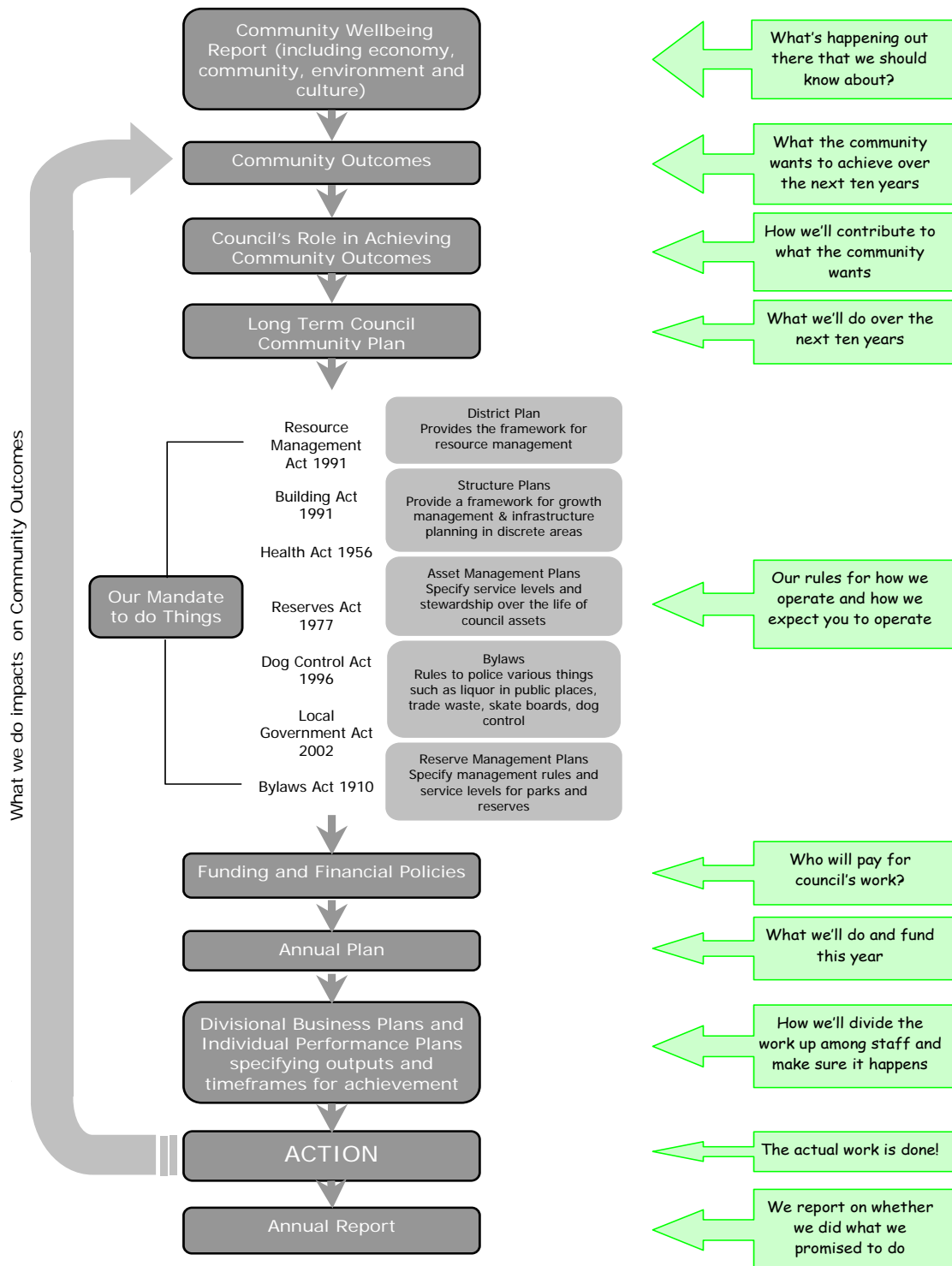
Clearly demarcate the boundaries of the Structure Plan to effectively provide for, and manage new subdivision and development as well as redevelopment of the Kinloch settlement.

1.7 Linkages to the Long Term Council Community Plan

This section outlines the linkages between the Structure Plan and the Long Term Council Community Plan (LTCCP). The planning and policy framework for the Structure Plan is discussed in further detail in Section 7 of this report.

The LTCCP provides broad linkages for achieving social, cultural, economic, and environmental outcomes regarding sustainable development. Community outcomes for the environment include:

- Preservation of natural features, that are valued or that are a special landscape feature.
- Ensuring future reserves meet community needs in harmony with the surrounding environment.



Reference: Structure Plan Linkages to Key Documents (Long Term Council Community Plan Volume 1, 2004).

- Maintaining and enhancing water quality to protect ecological health, cultural and recreational values.
- Protecting natural wetlands and margins of water bodies.
- Providing urban environments that complement their natural surroundings.
- Recognising the relationship of tangata whenua with the natural surroundings.
- Protection of waahi tapu sites.

These community outcomes are incorporated into the Structure Plan, and form part of the implementation methods where appropriate.

Council has developed a Development Contributions policy through the Local Government Act 2002 as a component of its funding and financial policies in the LTCCP. The key purpose of this policy is to ensure that growth, and the cost of infrastructure to meet growth, is funded by those who cause the need for and benefit from that infrastructure.

1.8 Linkages to the Financial Contribution Section of Proposed Taupo District Plan

The Proposed Taupo District Plan has an operative Financial Contributions section that allows the Council to charge a contribution towards new reserves, roading and water/wastewater infrastructure under the Resource Management Act 1991. Although this section is still operational, the Development Contributions Policy will be utilised to determine necessary contributions for new subdivision and development in the Structure Plan area.

1.9 Linkage between the Taupo West Rural Structure Plan and the Kinloch Community Structure Plan

The Taupo West Rural Structure Plan abuts the Kinloch Community Structure Plan to the north of Whangamata Road and to the east of the ridge overlooking the Whangamata Valley. The integrated management of these two structure plans is an essential component to addressing future development and growth within both the upper and lower Whangamata catchment. In particular physical features that are continuous in both structure plans, such as the Whangamata stream, need to have a consistent management approach through both the Taupo West Rural Structure Plan and the Kinloch Community Structure Plan.

There is a distinct possibility in the future that servicing requirements above the Whangamata Road boundary of the Structure Plan may need to be considered through a whole-of-catchment approach. To this end, the servicing requirements for new infrastructure have been undertaken concurrently for both structure plans.

In terms of future amendments to both structure plans, it is likely that these will also be undertaken concurrently. This is especially relevant through the development of any new objectives and policies that become necessary.

For further information refer to Section 6 of this document.



Part 2 – ANALYSIS OF INFORMATION

2 Kinloch and the Existing Environment

2.1 History of Kinloch

The Whangamata Valley was an undeveloped block of land that was purchased in 1953 by Ian Gibbs, Theodore Gibbs and (Sir) Keith Holyoake. The scrub was cleared, grass planted and the land developed for pastoral farming. The Block of land was known as the Whangamata Station (Whanga meaning Bay and mata a headland). Whangamata Station was eventually subdivided into Seven Oaks Station and Kinloch Station. To avoid confusion with the Whangamata Settlement in the Coromandel, the settlement was named Kinloch, which in Gaelic means, Kin – head, Loch – lake.

The Kinloch Settlement was established with the initial subdivision along the lake front area including Nisbet Terrace, Kinloch Road and Mata Place in 1959. Following on from this in 1961, the Kinloch Marina was constructed. The marina was the first of its type to be built in New Zealand. "An L shaped inland waterway has been carved out of the land near the beach. Faced with rock and surrounded by holiday homes...it will pioneer the way for a new luxury class holiday and weekend resort." (Reference: A History of Kinloch 1959 – 1984, reprinted 1998, Page 30)

In 1964 the Kinloch Post Office and store were opened and not long after that the Taupo County sealed the Whangamata Road. More recently the Kinloch community has experienced growth and development, which has triggered discussions between the community and the Taupo District Council. These discussions and subsequent formal requests to Annual Planning processes have in part lead to the development of the

It should be noted that further wording is being promulgated between the Taupo District Council and Ngati Te Kohera hapu to adequately address the contribution of the hapu to the development of the Whangamata Valley

Structure Plan.

2.2 Geography

Kinloch is located on the Lake edge in a broad Valley enclosed on either side by two headlands extending into Lake Taupo, Te Kauwae Point to the west and Whakaroa Point to the east (350m – 400m altitude). A significant feature of the landscape is the diversity of "green" space in the landscape.

The landscape of Kinloch is characterised by steep to gently undulating topography resulting from a number of northeast trending fault lines. These fault lines have created a saw edge effect, which has been further eroded, and cut into by numerous watercourses to create a complex topography of Valleys associated with the main waterways and ridges.

The majority of the land has been developed for pastoral farming, with small patches of remnant native vegetation and regenerating scrubland along some of the waterways and steeper headlands. Areas of land have also been developed for production forestry. Urban development is currently centred around the existing Kinloch settlement and along Whangamata Bay.

2.3 Geology

The geology of the area is characterised by the volcanic history of the area. This is mostly demonstrated through the soil types, which are characteristically pumice alluvium. The Geological Map of New Zealand identifies the Kinloch volcanic and sedimentary rocks as having “pumice alluvium and deposits” within the Valley areas and “Spherulitic, pumiceous and lithoidal rhyolite domes and flows, with Obsidian deposits” on the surrounding hill slopes and headlands. The Kinloch Valley was formed during the lower Pleistocene period when the basin was slowly filled with several thousand metres of pumice and alluvium.

The surrounding central volcanic district has a number of fault lines running through it. Geological maps show concealed and fault traces that pass through the west of the Structure Plan area adjacent to the Otaketake Scenic Reserve. Active faulting is common within the wider district, and to compensate for this the construction of structures and buildings are setback from known fault lines in the Proposed Taupo District Plan.

2.4 Site Location and Topography

The Kinloch settlement is situated at the south end of a large remnant river terrace that extends back to the intersection of Kinloch and Whangamata Roads. The Whangamata Valley is truncated by the lake edge, and is enclosed by steep hills to the east and steep to rolling hills to the west. The Valley is undulating, particularly towards the northern extremity.

See the KCSP Geographic Location and Topography Map in the Appendix section of this document for the location of 20 metre contour intervals

2.5 Archaeological Sites

The New Zealand Archaeological Association (NZAA) Site Recording Scheme was established in 1958 to encourage the recording of information about archaeological sites. The CINZAS (Central Index of New Zealand Archaeological Sites) is an electronic index to the paper records. The New Zealand Historic Places Trust and the Department of Conservation endorse the Site Recording Scheme as the national record system for archaeological sites. The Site Recording Scheme currently contains over 55,000 records.

Both the Historic Places Trust Register and the New Zealand Archaeological Association database have been searched. There are no known sites located within the Structure Plan area, but there are recorded sites on Whakaroa headland. It is important to note, that in any given area there may be undiscovered or unrecorded archaeological sites.

The Council in conjunction with the Historic Places Trust have produced an information brochure outlining the process that should be followed in the event that an unrecorded archaeological site is discovered.

2.6 Taupo District Draft Preliminary Landscape Study

The Taupo District Landscape Assessment prepared for the Taupo District Council, by Priest Mansergh Landscape Architects, May 2000 divided the Taupo District into a number of landscape types, landscape units and distinct landscape features.

The Structure Plan area falls within the Kaiapo landscape character type, which is described, "as a complex landform comprised of a series of broad Valleys and rhyolitic extrusions". Units within this landscape type are characterised by areas of intensive production forestry, small patches of native forests and shrub lands along rivers and stream courses and nodes of urban development.

Although no outstanding landscapes were identified within this feature, Lake Taupo is understandably identified as an outstanding natural landscape. The Lake and its margins were described as having high scenic value and the vegetation around the margins as having moderately high value due to the extent of native vegetation and natural appearance. The Study states that the lake is a highly visible and rare landscape, which has a moderately high sensitivity to any change.

A number of Landscape Amenity Management Areas were also identified. Although these areas were not considered to be outstanding natural landscapes they were highly valued and rated worthy of protection. The two areas of relevance to this report include the Whakaroa Point and Te Kauwae Point headlands.

Whakaroa Point and Te Kauwae Points are described as having predominantly indigenous vegetation cover of moderately high scenic value due to its extent and intactness, with a moderately high sensitivity to change due to the visibility of the headlands and extent of vegetation cover with no visible development.

In summary the two headlands enclosing Kinloch to the east and west are identified as highly valued landscapes worthy of protection. This is largely due to the intactness of the indigenous vegetation cover, lack of development and visibility of these areas. Lake Taupo is identified as an outstanding landscape with high scenic value. The extent of native vegetation on the lake margins and its general natural appearance is identified as an important element, which also acts to integrate development.

2.7 Headlands

These include the Whakaroa Point and Te Kauwae Point headlands that visually enclose the Valley and township to the east and west extending out into the Lake. The

headlands are largely covered with indigenous vegetation, which is under Department of Conservation management, with some private land, forestry woodlots and areas of pastureland on the lower hill slopes. In places rock outcrops are noticeable features, which also contribute to the sense of “naturalness”. These areas are characterised by minimal built development.

Along with the lake waterfront these headlands are the most visually sensitive components of the Structure Plan area due to their high degree of visibility, and continuity of the vegetative cover. They are identified in the Proposed Taupo District Plan as Landscape Amenity Management Areas.



Whakaroa Point and Headland

2.8 Lower Hill Slopes

The Structure Plan area includes the lower hill slopes and flanks of the prominent ridges toward the lower reaches of the Valley floor. This area is rural in nature and is mainly characterised by open pastureland, with some forestry lots and the occasional amenity planting of trees. A number of prominent ridgelines are located within this area that overlooks the Valley. This area is characterised by minimal built development.

2.9 Riparian Margins and Streams

Riparian margins exist adjacent to the Whangamata, Okaia and Otaketake Stream Scenic Reserves, which flow through the Valley. The Whangamata and Okaia Stream

Scenic Reserve were previously identified in the Proposed Taupo District Plan as Natural Value Management Areas.

The Department of Conservation is undertaking a restoration project on the southern section of the Whangamata Stream Scenic Reserve through the replanting of indigenous plant species and pest control measures. The riparian margin along both sides of the stream acts as a buffer, and provides for a “green” boundary between the stream and surrounding residential development.

The Okaia Stream Scenic Reserve along the northwest flank of the Valley has a mix of indigenous and exotic vegetation. The Otaketake Stream Scenic Reserve further to the west has a diverse range of native vegetation types. These stream reserves provide an important “natural” element in the landscape, which reinforce the underlying landscape patterns of the area.



Whangamata Scenic Reserve (Stream and Gully)

2.10 Stormwater Gullies

The stormwater network in the Kinloch settlement was historically developed through utilising natural drainage gullies and overland flow paths. Generally these drainage gullies and overland flow paths have been set aside as local purpose storm water reserves or drainage reserves. These areas are important as they act to improve the quality of stormwater discharged from impervious surfaces through filtration and percolation into the soil, and also contribute to the “green” framework of the settlement by providing a pedestrian network.

It would be useful in the context of the lower Whangamata Valley to utilise the remainder of the overland flow paths and drainage gullies for the purpose of connecting to the existing stormwater network. An integrated approach through future

development will assist with improving the quality of storm water that is discharged into the existing stormwater network from impervious surfaces.



Lower Boojum Dell Drainage Reserve

2.11 Lake Front

The lake esplanade reserve was surveyed as a recreation reserve as part of the original layout of the settlement. The lake front area is a central focal point for the community and a place where seasonal visitors to Kinloch congregate.

The reserve area provides for public access along the length of Whangamata Bay and is characterised by open mown grass with formal plantings of mainly exotic tree species and some native species in the western extent of the Bay. The mature poplars at the eastern extent of the Bay are a striking and memorable feature, contributing to the overall attractiveness of the settlement, and provide continuity with the poplar plantings along Kinloch Road.

The Bay itself retains a sense of “naturalness” due to the green buffer and the limited development that has occurred within this area. The Marina is set back from the lake edge, and incorporated amongst the existing residential development within the settlement. The gentle sweeping curve of the Bay is uninterrupted by built structures.



Lake Front Reserve looking across to eastern Headland (Whakaroa Point)



Lake Taupo, Poplars and Reserve Frontage

2.12 Public Open Space

The main existing formal recreation reserve, the Kinloch Domain, is located off Mata Place and is adjacent to the Marina. There are also a number of other recreational spaces and access ways that are shown on Planning Map 30b of the Proposed Taupo District Plan. These areas are characterised by open mown grass, mature tree planting the majority of which are exotic and provide a recreational focus to the community which contributes toward the continuation of the open space network.



Kinloch Marina



Marina Terrace Recreation Reserve

2.13 Valley Floor - Neighbourhood Areas

Kinloch was developed beginning in the 1960's largely as a holiday destination and much of the architecture of the town reflects the 'bach' type construction of this period. Development was initially focused around the lakefront, progressively moving up the Valley to the north. Along the western extent of Whangamata Bay, development is situated on a terrace above the lake front.

More recently a number of new subdivisions and developments have occurred in the western extent of the Valley, with further proposals likely to extend back up the Valley and on the lower hill slopes. This will result in the expansion of residential type development into areas that are currently rural in character.

The layout of the streets in the existing Kinloch settlement tends to be irregular rather than a grid pattern. The majority of streets are relatively short, usually in cul de sac form linked by walkways and local purpose storm water reserves. The streetscape is dominated by established plantings of street trees that contribute to the character and amenity of the settlement.



Photo showing how the built environment relates to the surrounding hills

2.14 Ecology

The Whangamata, Okaia and Otaketake scenic reserves are located within the structure plan area. Much of this land has been highly modified by human activity over the years with most of the developed land comprising pasture with small stands of mainly exotic trees. The shoreline of Lake Taupo fronting the Kinloch settlement has also been highly

modified and is characterised by areas of mown grass and formally planted exotic trees. The three principle stream systems within the Structure Plan area (Whangamata, Okaia and the Otaketake Scenic Reserve) all contain important ecological values.

2.14.1 Areas retaining significant ecological values

The main feature retaining significant ecological values within the Valley is the Whangamata Stream Scenic Reserve. Along the northwest flank of the Valley is the Okaia Stream Scenic Reserve and further to the west still, is the Otaketake Stream Scenic Reserve. These areas are administered by the Department of Conservation. Between the Whakaroa Point Recreation Reserve and the lake edge is an area of land in private ownership.

2.14.2 Whangamata Stream Scenic Reserve

The Whangamata Stream enjoys protected status as a trout spawning stream and has good water quality. It is identified in the Proposed Waikato Regional Plan as Trout Fisheries and Trout Spawning Habitat Water Class. The Whangamata Stream Scenic Reserve and surrounding gully provide a riparian margin for the stream and acts as a buffer from adjacent land uses. The Tongariro/Taupo Conservation Management Strategy indicates that the Scenic Reserve comprises rush-land, native plantings, exotic plantings and pasture.

2.14.3 Okaia Stream Scenic Reserve

The Okaia Stream is an ephemeral water course and flows intermittently along the eastern edge of the Okaia Stream Scenic Reserve. Tongariro/Taupo Conservation Management Strategy indicates that the stream has high fishery values with common indigenous fish present. The Scenic Reserve supports five finger-kohuhu forest and flax tussock-land, Carex-Juncus sedge rush-land and also extensive exotic plantings. Birdlife includes most common forest species with fern bird also noted.

2.14.4 Whakaroa Point and Whakaipo Bay Scenic Reserve

The Whakaroa Point Recreation Reserve and Whakaipo Bay Scenic Reserve occupy a significant proportion of the headland between Whangamata Bay and Whakaipo Bay that is located to the south of Kinloch. Tongariro/Taupo Conservation Management Strategy indicates that the vegetation comprises five finger-kohuhu forest, bracken fern-land, kamahi forest and kowhai-kanuka forest. Birdlife includes most common forest species, falcon and seasonal use by kereru. Black-backed gull roost/nest on the bluffs and a range of waterfowl are found along the lakeshore.

2.14.5 Otaketake Stream Scenic Reserve

The Otaketake Stream enjoys protected status as a trout spawning stream, with common indigenous fish also present and has good water quality. It is identified in the Regional Plan as Trout Fisheries and Trout Spawning Habitat Water Class. The stream flows along the eastern edge of the Scenic Reserve that supports a range of vegetation types including five finger-kohuhu forest, bracken fern-land, mixed podocarp-broadleaf forest, kanuka forest and flax-toe toe tussock-land. Birdlife includes most common forest species with fern bird present in river terrace scrub-land/wetlands.

2.14.6 Lake Taupo

The ecological and fishery values of Lake Taupo are well recognised and documented. The Lake provides valuable habitat for indigenous fish, trout, waterfowl, invertebrates, and a range of aquatic flora. Protection of the lake water quality from the continued effects of development is a fundamental strand that runs through this document. It should be noted that this document does not seek to address the effects of pastoral farming on the water quality of Lake Taupo.

2.14.7 Key Ecological Values

The study area has within and adjacent to it a number of habitats with ecological and fishery values including:

- Streams with associated riparian habitats, including wetland and riparian forest, indigenous fish populations and birdlife.
- Streams with recognised trout spawning values, notably the Whangamata Stream and Otaketake Stream.
- Various types of forest habitat mainly associated with reserve land.
- Lake Taupo.

Importantly, with the exception of the strip of land between the Whakaroa Point Recreation Reserve and the lake, all of the significant terrestrial habitats and key streams are located in reserves administered by the Department of Conservation.

2.15 Land Use

The land use in the Structure Plan area has seen a gradual change over the past 20 years from a seasonal holiday destination with a typical New Zealand 'bach' surrounded by pastoral land, to a more modern style residential setting with less of the 'bach' influence. The pastoral farmland that once provided a simple and effective border between residential and rural land uses is slowly being converted into a lower density residential environment. This trend is likely to continue until the majority of land within the Structure Plan area is fully utilised for residential purposes of differing densities.

It is unlikely that the ridge areas and accompanying hill slopes that comprise the eastern flank of the Whangamata Valley will be developed to any great extent. Currently this land is being pastorally farmed with areas of plantation forestry and soil conservation plantings.

The other land uses that will make their presence felt in the Structure Plan area are the two golf courses. Combined together, the existing 9 hole course and the proposed 18 hole international course comprise a large area of land within the structure plan area. By virtue of this land being a golf course, it will add to the existing open areas and green space.

2.16 Built Environment

The Kinloch settlement was originally established as a lakeside holiday destination. The bulk of the existing allotments in the Kinloch settlement are characterised by an average size of 800m². The dwellings constructed on these allotments were significantly smaller than the typical house of the time, and reflected the character of the New Zealand 'bach' culture. As an example, a number of these dwellings were no larger than 70m² plus associated buildings and structures.

For the purposes of historical context, the Taupo County District Scheme (updated in 1987) contained an average useable area for all sites in the Kinloch Residential A and B zones of not less than 600m². This was coupled with minimum areas for Front Sites, Rear Sites and Corner Sites of between 400m² and 500m² with 3.5m to 18m frontages. For the Kinloch Residential C zone this was a 2000m² average useable site, coupled with minimum areas for Front Sites, Rear Sites and Corner Sites of between 1600m² and 2000m² with 4m to 25m frontages.

The existence of smaller dwellings on relatively large sections created a unique character within the settlement, which has lasted up until the past 5 years. In planning terms the ratio between a dwelling and associated buildings and structures is termed site coverage. For reference, the average site coverage in the Taupo Township is 40%, whereas the Kinloch settlement has a site coverage of approximately 20% or less.

Coupled with the low site coverage, dwellings were generally setback on their allotments by at least 5 metres from roads and reserves on all boundaries. Coupled with a predisposition for large exotic tree landscaping on private property, dwelling location on allotments, setbacks and landscaping all connect seamlessly with the streetscape and open spaces.

This unique built environment is one component that makes up the character and amenity of the existing Kinloch settlement.

2.17 Streetscape

The Kinloch settlement has an interesting streetscape to compliment the unique built environment. Predominantly the roading layout contains a number of meandering collector streets, with a multitude of cul-de-sacs. There are virtually no footpaths in the Kinloch settlement, due to the seasonal nature of the population, and more importantly the number and species of tree located within the road berm.

Although large exotic trees form an intricate part of the character and amenity of the Kinloch settlement, it is important to balance this against the necessity for essential services to also utilise the road berm and airspace adjacent to the formed part of the road. There are obvious conflicts between mature trees and electricity transmission lines, footpaths, telecommunication cables which need to be further considered. It would be unrealistic to not allow infrastructure and essential services to not be able to utilise the road berm or formed part of the road, where there is no other viable alternative.

The concept of the 'Gateway to Kinloch' is important to within the structure plan area. Driving south from the junction of Whangamata road and Kinloch road visitors are

greeted by a continuous length of Poplar trees that symbolise and frame the entrance to Kinloch. To many residents and seasonal visitors to Kinloch, this is one of the visual highlights. The gateway approach should be recognised and provided for through this document.

The unique streetscape that exists in the Kinloch settlement should be replicated through new subdivision and development where this is appropriate. Tree species that are planted through new subdivision and development should take into account the existing streetscape, but importantly be consistent with the Draft Tree and Berm Vegetation Policy 2004.



Gateway into Kinloch – Sense of Arrival

2.18 Commercial Centres

Commercial development in the town to date is characterised by two compact growth nodes, the first by the lakefront along Mata Place, and the second on Kenrigg Road. Both of these nodes are located on Collector streets. Development by the lakeshore includes the local store and a cafe business. This is in contrast to the development on Kenrigg Road which consists of the Western Bay Marine. These areas of commercial

development are largely integrated with the surrounding residential development due to both the existing nature of the premises and the scale of the buildings themselves.

It is important to note that areas of open 'green' space offset these nodes of development. In the case of the lakefront development, this is offset by the adjoining lakefront reserve and Kinloch Marina. The Kenrigg Road development is offset by established amenity plantings including mature trees and an open space area.

It is recognised that as the settlement of Kinloch continues to grow, there will be a pressing need for new development of commercial areas. However it should be stressed that future commercial development should be small-scale neighbourhood like development and congruous with the existing Kinloch settlement. It would be inappropriate for a large floor area or multi-story commercial premises to locate in the structure plan area.



Kenrigg Road West/Kinloch Road Commercial Area

3 Infrastructure

An important component of the structure plan is the demarcation of indicative locations and sites for infrastructure required to cater for new subdivision and development within the structure plan area. The structure plan addresses key infrastructure requirements that pertain to:

- Provision for an indicative roading layout and hierarchy to ensure a sustainable roading network.
- Provision for indicative sites and locations of new reserves, recreation areas and appropriate public access.
- Provision for indicative sites and locations of new water reservoirs and waste water treatment irrigation disposal areas.
- Provision for an indicative stormwater network to ensure a sustainable and stormwater system through the use of natural overland flow paths and drainage gullies.

3.1 Stormwater

The structure plan advocates the use of low-impact urban design solutions in developing new stormwater systems and connections to the existing stormwater network within the structure plan area. The concept employs the use of existing natural drainage gullies and overland flow paths coupled with low-impact design technology.

The existing stormwater network provides for overland flow of stormwater in the event of high rainfall. There are a number of ephemeral watercourses on undeveloped pastoral land, which have been identified on the KCSP Existing and Indicative Reserves map contained within Appendix 1 of this document. These watercourses/drainage gullies/overland flow paths are identified for the purpose of incorporation into the designs of future subdivision and development as required connecting to the existing stormwater network.

Discharge of overland flow to the Whangamata and Okaia Scenic Reserves occurs naturally within the Kinloch catchment. However large scale modification of the natural drainage pattern of surrounding land resulting from new subdivision and development, to detain and divert natural overland flow, may have a detrimental affect on the holistic functioning of these systems. The dewatering of catchments for the purpose of averting natural discharge of overland flow should be avoided.

Over time there will be a need to progressively return the margins of the identified watercourses/drainage gullies/overland flow paths to their natural vegetated state through replanting. This will ensure the gullies and ephemeral water course act in a natural manner to filter stormwater before it reaches any permanent water body.

Earthworks and erosion have the potential to impact on natural stormwater flows and drainage. It is important that the natural geology of the sub-soils is not significantly

altered and is minimised to prevent further erosion. These gullies need to retain a suitable vegetative cover to ensure that tunnel erosion does not occur.

It is worth noting that within the existing Kinloch settlement stormwater from dwellings is generally diverted to soakage pits, and the road reserve is drained into the Council stormwater network. This is consistent with the performance standards in the Proposed Taupo District Plan, which require the disposal of stormwater onsite.

3.2 Roading

Kinloch experiences extreme peaks of traffic, with high volumes during holiday periods, noticeably over the Christmas and New Year period. The growth of the community is likely to continue to accentuate these traffic peaks.

Kinloch Road provides the main entry and access point for the Kinloch settlement. The existing road hierarchy for Kinloch identifies the collector and local road hierarchy, including Kinloch Road, Mata Place and Marina Terrace. The collector roads provide connections to all the local roads and cul de sacs. It is important to ensure that the collector roads are distinct in their function from the local roads, in that they provide local traffic distribution while maintaining residential amenity and ensuring that the volume and speed of traffic is appropriately managed.

The capacity of Kinloch Road is limited due to substandard road widths. In the future to accommodate the projected traffic volumes, Kinloch Road will either have to be upgraded and constructed to a Collector Road design standard, or a supplementary road added to provide for additional capacity.

Links onto Kinloch Road from new subdivision and development should include provision for access to the Kinloch Marina and settlement where appropriate. The potential location of any cross road is restricted, as the Department of Conservation wishes to limit the number of crossings over the Whangamata Stream to the existing crossing on Lisland Drive.

This limitation will increase the pressure on this crossing point and the intersections linking onto Lisland Drive. To accommodate this, a second crossing point has been identified to future proof the roading network against future traffic volume increases and to signal to developers a future requirement. To achieve this, Council will need to consult further with the Department of Conservation and developers to identify an appropriate and workable solution.

The location of a second crossing point should be in close proximity to high density residential areas so that it provides the shortest distance of travel for the majority of the traffic. It is also important that the link provides a clear connection into the areas identified for development.

Future local roads in undeveloped areas have not been shown on the Structure Plan maps. It is proposed that the final configuration of the local roading network should be determined between developers and Council. Generally standard urban design construction would apply to Kinloch with footpaths provided on the main collector roads and at least one path located on local roads.

The KCSP Existing and Proposed Indicative Reserves located in Appendix 1 of this document outline the existing and proposed roading network for Kinloch. The Future Collector roads are indicative only and recognise a need to provide for a coordinated roading network through new subdivision and development and in consultation with the appropriate Council departments.

3.3 Waste Water

Council has commissioned an assessment on the likely reticulation capacity for the Structure Plan area from Harrison Grierson Consultants Limited (June 2004). The current system is capable of catering for the existing connections and discharge requirements. Any future development and connections within the Structure Plan area will require an upgrade and expansion of the existing treatment plant and suitable land for irrigation disposal of treated waste water.

The Harrison Grierson report requires the provision of a new 200m sewer main down Kinloch road, upgraded and expanded wastewater treatment plant, new treated wastewater storage pond (24 hours), new irrigation pump station, new irrigation rising mains to land disposal areas, new subsurface rapid infiltration irrigation systems and upgraded electrical supply.

The Council uses a sequential batch reactor treatment process and includes an inlet screen, grit removal, two treatment tanks, a waste sludge tank, treated effluent storage, and disposal pump station to feed the current irrigation area.

The upgrade of the plant will require a major expansion and will also required an increase in the land area required for the plant. A setback requirement from the Wastewater treatment plant of 75 metres is required for all future development and has been included in as a rule in the implementation section (Part 1) of this report.

Land will be required as part of future development of Kinloch for irrigation of treated effluent and will be assessed at the time a resource consent application is lodged with Council.

3.4 Water Supply

Water supply for the area can be extended further as Kinloch grows. The supply comes directly from the lake. The supply will also need to be capable of meeting fire fighting requirements.

The report for Kinloch Infrastructure looks at the potential development of Kinloch, additional water reservoirs, water treatment, forecasts water demand for the proposed development areas, scopes the potential resource consents required for additional water take requirements and expansion required.

The Harrison Grierson report requires the provision of a new 3000m² reservoir, new ring main and booster pump station, upgraded electrical supply, duplicate intake structures and rising main to treatment plant, upgraded chlorine system and new UV and algae removal systems.

The cumulative effect of bore water supply to dwellings in the structure plan area should not be overlooked. It would be preferential for new residential dwellings to be reticulated with a potable water supply.

3.5 Electricity transmission

The existing Structure Plan area is serviced by underground electricity reticulation network. The reticulation of electricity transmission infrastructure around the Structure Plan area will generally follow the road alignments being located within the road reserve corridor. The placement of future electricity transmission infrastructure underground should continue where appropriate and feasible.

3.6 Telecommunications

The Structure Plan area is serviced by pole mounted telecommunication lines and related infrastructure. The reticulation of telecommunication lines and related infrastructure around the Structure Plan area will generally follow the road alignments being located within the road reserve corridor. The placement of future telecommunication infrastructure underground should continue where appropriate and feasible.

3.7 Reserves

The variety of reserves and open spaces contribute to the character and amenity of the existing Kinloch settlement. These reserves also provide access and create a sense of openness and an overall lower density of built development. The reserves are an integral part of the Kinloch settlement that should be recognised and incorporated in the design of new subdivision and development. The areas available for passive and active recreation include:

- Lake Taupo and its shoreline
- Lakeshore Reserves
- Public Open Space
- Recreation Reserves
- Marina Area
- Local Golf Course
- Riparian Margins, Streams and Gullies (Whangamata, Okaia and Otaketake Stream Scenic Reserve)
- Pedestrian/cycleway



Kinloch Lake Front adjacent to the Marina

3.8 Parking

Parking is currently provided for within the road reserve and/or in cul de sac heads, along the lakefront, adjacent to the Marina and in the Kinloch Domain. An appropriate level of parking should be provided through the design of new subdivision and development within the Structure Plan area.

Increasing residential development will place pressure on existing parking areas along the lake front area. Provision for parking is currently provided through the use of land within the existing Kinloch Domain. Future provision for parking will be provided through future resource consent applications.

4 Opportunities for Development

4.1 Lot Densities

The Management of new subdivision and development through the use of minimum and average allotment sizes will reduce the encroachment of the urban development into rural areas and will identify the maximum carrying capacity for the Structure Plan area. Setting minimum allotment sizes for the Kinloch settlement will assist with maintaining the existing amenity and character of the built environment.

Providing different lot sizes and average lot sizes through the use of high, medium and low density will effectively reduce the density of development in the structure plan area. This approach also provides opportunities for clustering of dwellings more commonly known as cluster development throughout the landscape.

On this basis the Structure Plan **recommends** minimum allotment densities of:

- High Density area (minimum 800m² with average area 1200m²)
- Medium Density area (minimum 1 hectare with average lot size 1.5 hectares).
- Low Density area (minimum 2 hectare with an average area of 2.5 hectares).

In the past 5 years there has been a notable trend towards fracturing the former 4 hectare rural-residential allotments into smaller 1-2 hectare allotments. In recognising this trend, Taupo District Council is proposing to undertake a variation to limit subdivision in the Rural Environment to a minimum of 4 hectares throughout the District. However the Kinloch area is slightly different, in that the area necessitates a higher density than 4 hectares. Accordingly the medium and low density areas as demarcated on the maps, allow for the development of a peri-urban amenity and character. Once the variation is publicly notified, new allotments north of Whangamata Road will be limited to 4 hectares.

4.2 Cluster development

Clustering is a development technique that encourages the grouping of residential dwellings within a rural, medium or lower density setting, which reduces the effects of higher density or grid type development. Clustering allows for the balance of subdivided rural open space areas to be retained while still accommodating a clustering of residential dwellings and associated buildings and structures.

The Ministry for the Environment produced a report titled 'The impact of rural subdivision and development on landscape values', July 2000 and identifies clustering as a technique to managing development in the rural environment. The advantages of cluster development in low and medium density area can be identified for Kinloch as:

- Provision of servicing requirements i.e. sewerage and water are more economically viable and easier to reticulate to one centralised system
- Protection of significant landforms from new subdivision and development

- Retention of open space through the balance of an allotment remaining undeveloped
- Maximised amenity through landscape enhancement, and opportunities to protect, maintain and/or enhance existing ecosystems
- Provision of new reserves, including green connected corridors for pedestrian and cycle use.

The clustering technique effectively allows for a large block of land to be subdivided less than the minimum allotment size for a density area with the balance of land not utilised for building platforms/sections to be set aside as a non-residential type land use. For example the allotment yield for a 20 hectare block of land in the Medium Density area with a minimum allotment size of one hectare will remain 20 dwellings. However instead of having 20, one hectare allotments, it is possible to have 20 dwellings in a five hectare area with the remaining 15 hectares in a non-residential type land use.

4.3 Landscape

Preservation of the natural landscape that bounds the town will retain the rural outlook from the Kinloch settlement and prominence of natural elements in the landscape. This more natural landscape visually binds the settlement, with built development to date largely being contained to the Valley floor. The surrounding natural land cover has retained the rural outlook from Kinloch and prominence of natural elements in the landscape.

A strong framework of tree and shrub planting assist to integrate built development with the surrounding vegetation patterns. The structure plan should seek to preserve and further enhance this natural backdrop to the town, in particular the intactness and extent of the vegetative cover.

Appropriate landscaping and the planting of trees within the road berm should be undertaken in accordance with Council's Draft Tree and Berm Vegetation Policy 2004.

Any development should be positioned so that views of the skyline are not broken and expansive areas of indigenous vegetation are retained to preserve the strong vegetation patterns in these areas. A strong framework of tree and shrub planting would be required to integrate development with the surrounding vegetation patterns and development controls to guide the location, scale, height and form of buildings.

Opportunities for more intensive densities of built development should be clustered and integrated into the landscape with a strong framework of tree and shrub planting. These more intensive areas of development should be offset by expansive areas of open pastureland and/or planting with lower densities of development, to retain the rural outlook from the Valley floor within areas identified for medium and low density.

Continuation of the storm water gullies/drainage reserves can provide amenity and access benefits. These corridors contribute to the larger pedestrian network in the structure plan area, which link up with the commercial nodes and key community facilities as well as connecting up with the waterfront. These corridors are a recreational focus for a neighbourhood, which along with the stream bank riparian areas could be

designed to eventually become an over all unifying green framework to the town, defining different areas of development.

Providing "green" engineering approaches to storm water management through the use of swales, flood detention ponds and overland filtering is an important component in the structure plan. Stormwater gullies provide an alternative approach to managing storm water as well as emphasising the underlying landscape patterns. Swales, flood detention ponds and overland filtering are other alternative methods for managing storm water resulting from increased urbanisation that can be designed to be both functional as well as contributing to the amenity of an area. Other aspects in regard to Landscape areas include:

- Provision of public access along the length of the Whangamata Bay and continuation of the network of pedestrian walkways to connect up with this important focal point of Kinloch including pedestrian and cycle ways.
- Provision for recreational paths for walking and cycling and connections to other walking areas such as the Whangamata Scenic Reserve and Kawakawa Bay and other future lake front recreational paths
- Development of Proposed Taupo District Plan controls to guide the location, scale, height and form of buildings that are particular to Kinloch.
- Retention of the distinct sense of arrival to Kinloch created by the existing tree planting along Kinloch Road and the strongly defined interface between the open rural development and residential development of Kinloch.
- Retention, protection and replanting of existing poplars on Kinloch Road and trees on the lakefront reserve.
- Provision of a comprehensive network of reserves where these areas act as a green framework containing different neighbourhood areas that form part of the overall pedestrian network including local purpose drainage reserves.
- Streets should continue to follow irregular layout of the existing streets (cul de sacs) following the natural contours of the landscape with green connecting corridors. No roads should be built along the ridgelines. It is important to maintain the efficient functioning of the roading network, by ensuring that collector roads are utilised.
- Continuation of the node type of commercial development that provides for compact commercial centres that service different community areas in association with community facilities and the provision of a pedestrian and cycle network connecting up with these areas.
- Provision for a range of development densities in response to the natural landscape patterns, ranging from larger lots that incorporate stands of mature trees, to high density cluster type development offset by areas of open space.

4.4 Ecology

The opportunities for the enhancement of the ecological environment include:

- An opportunity to work with the Department of Conservation to enhance the habitat and restore the Whangamata and Okaia Stream Scenic Reserves.
- The collaborative development of a Whangamata Stream Management Plan with Environment Waikato, Department of Conservation and Taupo District Council in consultation with key stakeholders.
- The continuation of the walkway development through the Whangamata Scenic Reserve up to Whangamata Road.
- Education of people on these special environments and protection of this significant trout spawning stream.
- Continuation of riparian margin and revegetation schemes.

4.5 New Subdivision and Development

There is an opportunity to provide more intensive densities of built development should be clustered and integrated into the landscape with a strong framework of tree and shrub planting. Expansive areas of open pastureland should offset these more intensive areas of development and/or planting with lower densities of development, to retain the rural outlook from the Valley floor within areas identified for medium and low density.

5 Constraints to Development

5.1 Infrastructure

In summary there are no critical infrastructure constraints to development in Kinloch. However under the current system there is no further capacity for future development in Kinloch. Servicing will need to be expanded and provided for as outlined in the Harrison Grierson Report on Kinloch Infrastructure.

5.2 Lake Taupo Water Quality

An important constraint to development relates to the protection of water quality and of Lake Taupo. There is potential for nutrients leached from sewage disposal fields to eventually impact on water quality. For this reason all development is to be required to connect to the wastewater treatment plant to further protect lake water quality.

The provision of lower density development will assist to mitigate the long term effects of nitrogen input into Lake Taupo. It is anticipated that Environment Waikato will introduce a regulatory framework to address nitrogen input to land through multiple land uses. Coupled with the requirement to reticulate wastewater and a controlled number of dwellings in the Kinloch area, it is contended that Nitrogen inputs into the structure plan area will be effectively managed.

The application of nitrogen based fertiliser on urban and semi-urban properties contributes to the total load of nitrogen entering the catchment.

5.3 Landscape

Within the landscape context of Kinloch a number of areas were identified as constraints to development.

- The headlands to Whangamata Bay (Whakarua Point and Te Kauwae Point) should be preserved from inappropriate development to enhance the natural backdrop to the town, and in particular the intactness and extent of the vegetative cover.
- The lower hill slopes surrounding the Kinloch Valley should be excluded from high-density type development.
- Development should be positioned to ensure that the views of the skyline are not broken.
- The Whangamata, Okaia and Otaketake Stream scenic reserves, including their riparian margins, shall be protected from the effects of development.
- Protection of Lake Taupo waterfront from high-density development.

5.4 Ecology

There are a number of ecological constraints that need to be recognised within the Kinloch Community Structure Plan Area. These include:

- Access roads across the Whangamata Scenic Reserve and the Okaia Scenic Reserve will have a direct effect on habitat loss and habitat severance. Walking and cycle tracks across these reserves and streams will have a lesser impact.
- The Whakarua Point Recreation Reserve supports threatened plant and animal species.
- There should be no direct effect on the water quality of the streams from sediment discharges, nutrient inputs and stormwater contaminants.

5.5 Natural Hazards

The Proposed Taupo District Plan includes a section on natural hazards and unstable ground recognising land instability, flooding, lakeshore erosion, thermal areas, earthquakes and volcanic hazards.

In addition to these matters raised in the previous report on tectonic movements (Reference Hancox Report on Tectonic Movement as a Natural Hazard) Kinloch has been identified as area where measurement of subsiding ground is notable. Actual survey measurements since 1979 indicated subsidence rates of between 6 – 7mm per year (approximations only). Flat lying areas and gullies surrounding the foreshore are more likely to be affected than those areas with steeper shoreline profiles. Subsidence within Kinloch is unlikely to affect any new areas identified for urban development given the topography of the land and distance from the lakefront.

While it is recognised that the Taupo District and volcanic plateau are subject to earthquakes and a significant number of fault lines, one of which is adjacent to the Whangamata Valley and Kinloch Township it is not recognised as a major constraint to development. Set back requirements from major fault lines are a requirement of the Proposed Taupo District Plan.

6 Statutory Legislation and Documents

The Resource Management Act 1991 (RMA) states a requirement under Section 75(2) for all district plans to be consistent with any national policy statement or regional policy statement or any regional plan. The statutory instruments have been broadly reviewed, as aspects of the Structure Plan which may be included in the Proposed Taupo District Plan through the variation process.

Taupo District contains four Regional Authorities. Kinloch settlement is situated within the Waikato Region, administered by the Waikato Regional Council (Environment Waikato). The Waikato Regional Council has an operative Regional Policy Statement (2000), and a Proposed Regional Plan, notified 1998, Appeals version (2002).

6.1 The Waikato Regional Policy Statement (1993)

The Regional Policy Statement provides an overview of the significant resource management issues of the Waikato Region. The Regional Policy Statement reflects the purpose of the Act and outlines policies and methods to achieve integrated management of natural and physical resources.

This document has bearing on the Structure Plan in the following way in that the Structure Plan and the District Plan framework shall be consistent with the Policies and Objectives of the Regional Policy Statement. The most relevant sections of the Regional Policy Statement that pertain to the structure plan are:

- Section 2 Resource Management Processes, the Treaty of Waitangi and Matters of significant to Maori.
- Section 3.3 Land and Soil
- Section 3.4 Water, and
- Section 3.11 Plants and Animals (Biodiversity)
- Some objectives of the Regional Policy Statement relate to the protection of outstanding water bodies and riparian management and include:
 - "3.3.5 Net improvement of water quality across the Region."
 - "3.11.4 Biodiversity within the Region maintained or enhanced."

6.2 The Proposed Waikato Regional Plan (1998)

The Proposed Regional Plan is not yet operative but it is in the final stages of completion with the Council currently addressing references to the Environment Court.

The Regional Plan incorporates a number of rules some of which relate to soil disturbance, riparian vegetation destruction, earthworks in high-risk erosion areas and

structures in, on or over streams. It also includes objectives for the enhancement and maintenance of the natural character and water quality.

3.1.2(k) "The management of water bodies in a way which ensures the natural character of the coastal environment, wetlands, and lakes and rivers and their margins, (including caves) is preserved and protected from inappropriate use and development."

The Plan identifies Lake Taupo as an important ecological area. Environment Waikato is implementing Project Water Shed, which promotes among many other things fencing and planting of waterways to reduce sediment entering rivers and lakes.

The Plan contains objectives, policies and implementation methods for:

- Matters of Significance to Maori
- Water Quality, Flows and Levels
- Water Takes
- Efficient use of water
- Discharges
- Damming and diverting
- Wetlands
- Drilling
- Non-point source discharges
- Structures on the beds of rivers and lakes
- River and Lake bed disturbance
- Accelerated Erosion
- Discharges onto or into land
- Contaminated sites
- Natural Hazards
- Air Quality
- Spray Drift
- Geothermal
- Cross boundary processes
- Monitoring and review

- Information Requirements for resource consents

The Plan's implementation methods include resource consent process and environmental education programmes that the plan will monitor. While the function of the Regional Plan and Regional Policy Statement is different to the Structure Plan, the Structure Plan must not be inconsistent with the intent of these documents.

6.2.1 Lake Taupo Variation

Environment Waikato is currently undertaking the development of a variation to the Proposed Waikato Regional Plan to address the effects of nitrogen discharges to the catchment of Lake Taupo. It is anticipated that this variation will include provisions that seek to manage the discharge of nitrogen to the catchment from urban sources (on site effluent treatment, and community treatment systems), and from pastoral sources (extensive and intensive livestock farming). Through being a partner in the process of developing a solution to addressing nitrogen inputs into Lake Taupo and its catchment, the Structure Plan has as one of its central objectives, the holistic management of the water quality in regard to the future development of land.

6.3 Department of Conservation

The Department of Conservation manage 217,000 hectares of conservation land, of which the Whangamata, Okaia and Otaketake scenic reserves are a component of this larger area. The management of the Scenic reserves falls under the Tongariro/Taupo Conservation Management Strategy 2002-2012. The scenic reserves also have statutory protection under the Reserves Act 1977.

It is important to recognise that the Department may from time to time close the scenic reserves from public access. The closure of scenic reserves is important in regard to the protecting and enhancing the conservation values associated with these areas. The structure plan should provide guidance to developers and the community regarding future growth in the structure plan area, and in regard to the use of scenic reserves for recreation purposes.

Part 3 - IMPLEMENTATION

7 Community Issues, Objectives, Policies and suggested methods of implementation

The community of Kinloch identified 10 key issues during consultation that provide the framework for developing community objectives, policies and methods for implementation. These objectives and policies, in conjunction with the indicative identification of required infrastructure, provide guidance to developers and the community regarding new subdivision and development. The suggested methods of implementation signal the potential content of a variation/plan change to incorporate relevant information into the Proposed Taupo District Plan.

It is important to iterate that the primary mechanism for managing new subdivision and development in the Structure Plan area is through the Proposed Taupo District Plan. However Section 104(1)(c) of the Resource Management Act 1991 allows for the decision makers to have regard to '*other*' documents at the time of assessing resource consents. This Section of the Act gives the Structure Plan a certain amount of statutory weighting when resource consents are assessed.

Although the Structure Plan is not able to develop and/or enforce compliance with any rules, there is a strong likelihood that relevant information outlined in the document will form the basis for a Kinloch Area Overlay. It is anticipated that the Kinloch Area Overlay will be inserted into the Proposed Taupo District Plan through the Variation process as outlined in the First Schedule of the Act. When this occurs the reliance on Section 104(1)(c) is negated, and the relevant provisions are given full statutory weight.

Sections 93 and 94 of the Resource Management Act 1991 require public notification and service of all applications for resource consent except in certain circumstances. Those exceptions include when the adverse effects of the activity on the environment will be minor, when the written approvals of all persons who may be adversely affected by the activity have been obtained and/or when the district plan authorises non-notification or no service.

It cannot therefore be assumed that applications for consent to proposals which comply with this Structure Plan will be dealt with non-notified or without the need for service upon affected persons."

7.1 Community Issue - Streetscape

7.1.1 Community Objectives - Streetscape

- (i) New subdivision and development for high density (residential) purposes should be consistent with the existing roading layout within the Kinloch settlement.
- (ii) New subdivision and development for low and medium density purposes should incorporate a non standard roading layout that where appropriate, follows the contours of the land.
- (iii) New subdivision and development should include provision for urban walkways and cycleways to enhance the connectivity between the reserve and roading networks within the Structure Plan area.
- (iv) Trees and planted vegetation on the road berm established through new subdivision and development, should be consistent with existing tree species in the Kinloch settlement and undertaken in conjunction with the Draft Tree and Berm Vegetation Policy 2004.
- (v) Infrastructure and services such as telecommunication and electricity transmission lines, lighting, water, wastewater and footpaths should be located within the road berm.
- (vi) The existing roading layout that comprises the 'Gateway to Kinloch' as identified in this document, should be maintained and enhanced to protect the visual corridor and sense of arrival.

7.1.2 Community Policies - Streetscape

- (i) Ensure that roading layouts designed to service new high density (residential) development are consistent with the existing road layout in the Kinloch settlement.
- (ii) Ensure that where appropriate, roading layouts designed to service new low and medium density development follow the contours of the land and fit in with and reinforce the character of the Structure Plan area.
- (iii) Encourage new subdivision and development to establish new walkways and cycleways that provide connections between the existing reserve network and roading pattern.
- (iv) Promote the protection of the 'Gateway to Kinloch' through setting back new subdivision and development an appropriate distance from the junction of Kinloch Road and Whangamata Roads.
- (v) Ensure that any enhancement or replanting of the 'Gateway to Kinloch' is of a similar tree species and layout.

- (vi) Encourage the planting of tree species and planted vegetation in association with new subdivision and development that continues and holistically maintains the existing level of amenity in the Kinloch settlement.
- (vii) Ensure that the planting of new tree species and planted vegetation is undertaken in accordance with the Draft Tree and Berm Vegetation Policy 2004.
- (viii) Promote consultation between persons or organisations undertaking new subdivision, development or redevelopment to liaise with the appropriate department of the Taupo District Council in regard to streetscape issues.

7.1.3 Explanation

Undeveloped land identified within the Kinloch Structure Plan area could be adversely affected by the inappropriate development of streetscape and roading layout that are incongruous with the existing streetscape and roading layout in the Kinloch settlement.

Within the Kinloch settlement the layout of the streets tend to be irregular rather than grid like in pattern. The streets are relatively short and usually in cul de sac form. The majority of the streets have established planting of street trees that contribute to the overall amenity and character of the settlement. Generally the streets tend to follow the contour of the land.

The existing streetscape within the Kinloch settlement currently allows people to walk and cycle with relative ease. Further opportunities to increase the connectivity between the reserve and roading networks should be promoted at the time of subdivision.

There is a real sense of arrival to Kinloch at the intersection of Whangamata Road and Kinloch Road. The landscaping and layout is striking and memorable on arrival to Kinloch, and provides a 'gateway'.

7.1.4 Suggested methods of implementation

(a) Kinloch Area Overlay

- Demarcate the 'Gateway to Kinloch' on the Proposed Taupo District Plan maps.

(b) Statutory overlap

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004
- New subdivision and development will have regard to the Draft Tree and Berm Vegetation Policy 2004.

7.2 Community Issue - Built Environment

7.2.1 Community Objectives - Built Environment

- (i) The bulk, location and size of new residential dwellings should be consistent with the existing built environment.
- (ii) Inappropriate redevelopment within the Kinloch settlement can have an adverse effect on the existing amenity and character through the use of incongruous bulk, size and design of residential dwellings and associated buildings and structures.
- (iii) Buildings constructed on or near prominent ridgelines and hill slopes should be setback from the crest of ridgelines and hills.
- (iv) The construction of fencing around the parameter of allotments, needs to design to blend into the built environment and compliment the existing streetscape.

7.2.2 Community Policies - Built Environment

- (i) Ensure that the construction of new residential dwellings and associated buildings and structures do not detract from the existing amenity and character of the built environment through the use of similar building materials and designs.
- (ii) Ensure that the redevelopment and construction of new residential dwellings maintains the existing amenity and character of the Kinloch settlement.
- (iii) Encourage the use of building materials and colours which are no incongruous with the natural environment are utilised.
- (iv) Ensure that the built environment does not encroach on existing open space, reserves and scenic reserves.
- (v) Promote the continuation of the height restricted area as identified in the Proposed Taupo District Plan, during the creation of new allotments adjacent to the lakefront reserve and scenic reserves.
- (vi) Ensure that the construction of residential dwellings and associated buildings and structures do not detract from the natural character of prominent ridgelines and hill slopes.
- (vii) Ensure that new residential dwellings constructed within Structure Plan area connect to the centralised waste water treatment plan to enable the most effective treatment and nutrient stripping technologies to be applied as these become technologically available.

- (viii) Encourage good practical design of boundary fencing that will not detract from the built environment and will compliment the surrounding streetscape.
- (ix) Promote consultation between persons or organisations undertaking new subdivision, development or redevelopment to liaise with the appropriate department of the Taupo District Council in regard to the Built Environment.

7.2.3 Explanation

New subdivision and development should be compatible with the existing character and amenity values currently enjoyed in the Kinloch settlement. The objective and policies recognise the existing amenity value, but also take into account the change to larger residential dwellings in the built environment.

The existing Kinloch settlement is distinct from the other residential areas of the District in that they have lower density of development and only few non-residential activities have been established. This distinctive character could be compromised if inappropriate subdivision and development occurs.

Development that dramatically changes the bulk, location and size of new residential dwellings can have a detrimental effect on the existing amenity and character of the Structure Plan area. Although it would not be beneficial to translate the exact bulk, location and size to all new residential dwellings, it is equally inappropriate to have large residential dwellings on small allotments. This can be partly mitigated through the use of slightly larger boundary setbacks.

New Subdivision and development that occurs on or near ridgelines within the Structure Plan area has the potential to detract from the naturalness of those landscape features. These areas of distinctive ridgelines are particularly sensitive to the visual impact of buildings which can detract from the existing character. The use of setbacks from the crest of ridgelines may assist with interfering with visual sightlines.

The reticulation of waste water to the centralised treatment plant is essential to enable monitoring of the potential increase in total nitrogen discharge from new subdivision and development. The water quality of Lake Taupo is of significance to the District, Region and Nation. Subsequent upgrades to improve the treatment of nitrogen from a centralised system are also more cost effective, then ensuring compliance for upgrades and/or retro fitting of on site effluent treatment (septic tank) systems in the future.

The inappropriate design of fencing for new residential dwellings in sensitive locations such as on the boundary of reserves and the lake front can detract from the character of the built environment. It is important to consider the outward appearance of fencing materials and designs, and matching these to the location of the property.

7.2.4 Suggested methods of implementation

(a) **Kinloch Area Overlay**

- Undertake a review of the site coverage provisions to ensure that the coverage threshold in the Proposed Taupo District Plan is appropriate for the Structure Plan area. If this is not the case, site coverage's particular to the structure plan area should be promulgated through the Kinloch Area Overlay.
- Continue the height restricted area of 4.5 metres adjacent in the Transitional District Plan for those new allotments adjacent to the lakefront and to the Whangamata, Okaia and Otaketake Scenic Reserves.
- Waste water treatment irrigation systems to be controlled by soil moisture probes and controlled distribution rates, according to resource consent conditions.

(b) **Education and Advocacy**

- Advocate for the use material and natural colours to ensure development blends in should there be construction of residential dwellings within the ridgeline protection policy.

(c) **Statutory overlap**

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004
- New subdivision and development will demonstrate compliance with the Code of Practice for Engineering 2001.
- New subdivision and development will demonstrate compliance with the performance standards of the Proposed Taupo District Plan 2000.
- New subdivision and development will have regard to the Draft Tree and Berm Vegetation Policy 2004.

7.3 Community Issue – New subdivision and development

7.3.1 Community Objectives – New subdivision and development

- (i) The size of allotments created through new subdivision and development are managed to create a radial pattern of density ranging from a High density area including and adjacent to the existing Kinloch settlement through to a Low density area in the north of the structure plan area.
- (ii) Ecologically sensitive areas and prominent landscape features should be protected from the potential effects of new subdivision and development.
- (iii) Natural watercourses and overland flow paths/ephemeral watercourses should be protected through the subdivision process to ensure that development does not occur within these areas.
- (iv) Accessways and cycleways should be provided through the subdivision process to link to the roading network and reserve areas.

7.3.2 Community Policies – New subdivision and development

- (i) Ensure that the size of allotments created through new subdivision and development is managed through demarcation of a radial pattern of decreasing lot density ranging from High density to Medium density and Low density.
- (ii) Promote the insertion of a minimum and average lot size area to be identified for each of the densities demarcated within the Structure Plan area.
- (iii) Encourage new subdivision and development to be visually consistent with the existing built environment, streetscape and reserve layout within the Structure Plan area.
- (iv) Promote opportunities for more intensive development in medium and lower density areas where cluster housing can be integrated into the landscape, coupled with a strong framework of tree and vegetation planting.
- (v) Ensure that during the subdivision process, appropriate land is acquired for the purpose of supplying suitable reserves to meet the future requirements of the Structure Plan area.
- (vi) Encourage the use of landscaping plans as part of a resource consent application for development, that identify any vegetation to be retained, and the type and density of any proposed planting to be undertaken.
- (vii) Encourage the protection of natural ephemeral watercourses, drainage gullies and overland flow paths through the subdivision process to avoid the potential adverse effects of development occurring within these areas.

- (viii) Promote the use of covenants for new subdivision and development to control the bulk, location and size of residential dwellings and associated buildings and structures.
- (ix) Encourage the use of earthworks management plans that seek to minimise the significant alteration of the natural geology and soil structure within the Structure Plan area.
- (x) Promote consultation between persons or organisations undertaking new subdivision, development or redevelopment to liaise with the appropriate department of the Taupo District Council in regard to the Built Environment.

7.3.3 Explanation

New subdivision, development and redevelopment has the potential to adversely alter the existing amenity and character of the Structure Plan area through the creation of different densities and styles of built environment, types and functionality of reserves, streetscape and infrastructure/services. The density of allotments is of concern in the Structure Plan area, as if the current trend is left unchecked, it is likely that residential density will continue through the remaining undeveloped land. A radial density concept is proposed which would see allotment sizes increase in bands to provide a decreasing density as distance increased from the Kinloch settlement.

There are certain features and areas of ecological and landscape value that should be protected from inappropriate subdivision and development. These features are sensitive to development and are likely to be compromised if this was to occur.

Natural watercourses and overland flow paths/ephemeral watercourses are ideally suited for use as stormwater purposes, and where feasible these should be connected to the existing stormwater network. This approach is consistent with low-impact urban design principles that have been encouraged through the document. Developers should be encouraged to utilise the subdivision process and/or covenants to ensure that development does not occur within these areas.

The subdivision process should be used to enable developers to enhance connectivity between new subdivision and existing reserve and local purpose stormwater networks. Cycleway connections are also a valuable asset between the roading and reserves networks, designed in association with new subdivision and development.

7.3.4 Suggested methods of implementation

(a) Kinloch Area Overlay

- Implement the minimum and average allotment sizes to appropriately manage density within the Structure Plan area:

High density area (minimum 800m² with average area 1200m²).

Medium Density area (minimum 1 hectare with average lot size 1.5 hectares).

Low Density area (minimum 2 hectare with an average area of 2.5 hectares).

- Restrict the number of houses on a single lot. (i.e. one house per lot.)
- To implement the ridgeline overlay put in place standards and terms to assess the effects of such an activity. Restrictions to relate to density of development (low density lot size area), conspicuousness (use of topography), retention of existing vegetation, use of building materials and colour schemes in earth tones.

(b) **Statutory overlap**

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004
- New subdivision and development will demonstrate compliance with the Code of Practice for Engineering 2001.
- New subdivision and development will demonstrate compliance with the performance standards of the Proposed Taupo District Plan 2000.
- New subdivision and development will have regard to the Draft Tree and Berm Vegetation Policy 2004.

7.4 Community Issue - Native and Regenerating Vegetation

7.4.1 Community Objectives - Native and Regenerating Vegetation

- (i) Areas of established and regenerating native vegetation should be protected through the subdivision process to ensure that inappropriate development does not occur within these areas.
- (ii) Passive recreation should be able to occur in areas of established and regenerating native vegetation where these areas are vested as reserve, or access is permitted by landowners or statutory agencies.

7.4.2 Community Policies - Native and Regenerating Vegetation

- (i) Ensure that inappropriate development does not occur within areas of established and regenerating native vegetation.
- (ii) Promote the use of covenants for new subdivision to control the location residential dwellings and associated buildings and structures adjacent to areas of established and regenerating native vegetation.
- (iii) Encourage the vesting of areas of established and regenerating native vegetation as passive reserve through the subdivision process.
- (iv) Promote the provision of ecological corridors through the subdivision process.
- (v) Ensure that there is no direct effect on the water quality of the streams from sediment discharges, nutrient inputs and storm water contaminants.
- (vi) Promote consultation between persons or organisations undertaking new subdivision, development or redevelopment to liaise with the appropriate department of the Taupo District Council in regard to the Native and Regenerating Vegetation.

7.4.3 Explanation

Areas of established and regenerating native vegetation should be protected through the subdivision process to ensure that inappropriate development does not occur within these areas.

Passive recreation should be able to occur in areas of established and regenerating native vegetation where these areas are vested as reserve.

Areas of native and regenerating bush must be protected from development to ensure the protection of ecological and amenity values while still encouraging passive recreation where appropriate.

From time to time the Department of Conservation may close Scenic reserves for the purpose of regenerating and establishment of native vegetation.¹

7.4.4 Suggested methods of implementation

(a) Education and Advocacy

- Advocate for the use of areas of natural value for use as passive recreational reserves where appropriate and where there is public land tenure.
- Educate the Kinloch community regarding the ecological values of these areas and the potential adverse effects of new subdivision and development.
- Advocate the use of covenants to provide protection for areas of established and regenerating native vegetation during the new subdivision and development process.

(b) Statutory overlap

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004
- New subdivision and development will demonstrate compliance with the Code of Practice for Engineering 2001.
- New subdivision and development will demonstrate compliance with the performance standards of the Proposed Taupo District Plan 2000.

¹ 41/20 – Department of Conservation

7.5 Community Issue - Tangata Whenua Cultural Value and Heritage Value

7.5.1 Community Objectives - Tangata Whenua Cultural Value and Heritage Value

- (i) Every person or organisation, with the intention of subdividing and developing rural land, has a duty to consult with the relevant hapu whom hold Mana Whenua status within the Structure Plan area, as they are the Kaitiaki.
- (ii) Avoid inappropriate regulatory restrictions on the development of Maori owned land to enable Tangata whenua to provide for their social, economic, and cultural well-being.
- (iii) Inappropriate development of rural land or redevelopment of the Kinloch settlement has the potential to adversely affect the integrity of any historical and cultural value site identified in the Proposed Taupo District Plan.

7.5.2 Community Policies - Tangata Whenua Cultural Value and Heritage Value

- (i) Recognise and respect the special relationship that Ngati Tuwharetoa and the Mana Whenua Hapu have with Lake Taupo-Nui-a-Tia and surrounding land within the Kinloch Community Structure Plan area.
- (ii) Promote and develop a partnership approach with the Hapu to enable for the appropriate identification and provision for the protection of cultural values.
- (iii) Ensure that the development of rural land or the redevelopment of Kinloch settlement does not adversely affect the integrity of any historical and cultural value site as identified in the Proposed Taupo District Plan.
- (iv) Ensure the establishment of an appropriate buffer area around known archaeological sites and require archaeological assessments to be carried out if development is to occur within the Kinloch Community Structure Plan area.

7.5.3 Explanation

The relationship of Maori as Tangata whenua within the Kinloch Structure Plan area is important. People or organisations that wish to undertake major development within this area must consult with the hapu to ensure that their plans do not compromise any known cultural value site.

There are areas on the headlands that have identified archaeological sites that need to be protected from inappropriate development. Developers and the community should be aware of the potential existence of cultural value sites. There may also be cultural and/or heritage sites that are discovered during development of the land. Protocols should be set in place in the event that a discovery is made particularly during any earthworks excavations.

Section 8 of the Resource Management Act 1991 (RMA) encourages a partnership between tangata whenua and Council based on the principles of the Treaty of Waitangi to promote the sustainable management of the natural and physical resources of the District. Council will enter into discussion with the hapu, to develop options for undertaking a partnership approach to provide for the appropriate identification and provision of cultural value sites.

Redevelopment could potentially have a major influence on the heritage values of Kinloch. Outside of national agencies such as the Historic Places Trust, Council is endeavouring to raise the profile of the Heritage values in the District through a number of different mechanisms.

The Lakeshore Reserve Scheme 1965 was an ambitious plan to increase the reserve area around the margin of Lake Taupo from 2000 acres to 50,000 acres. The scheme was designed to, "...preserve for all time the lake and shores in the public interest...". A proportion of land that was earmarked for use through the Lakeshore Reserve scheme was Maori owned land. Much of this land was either offered to the Crown, and/or leased by the Crown in the interests of achieving the outcome of the scheme.

It is important to note that the Lakeshore Reserve Scheme was abandoned in 1971.

7.5.4 Suggested methods of implementation

(a) Kinloch Area Overlay

- Require 100m buffers around known archaeological sites as identified in the Proposed Taupo District Plan.
- Enter into a partnership with the hapu to address issues regarding the appropriate identification and provision for cultural value sites.

(b) Education and Advocacy

- Advocate the use of covenants through new subdivision and development to protect buildings, objects, items and areas of heritage and cultural value.
- Advocate the use of in depth archaeological assessments that are undertaken through the process of new subdivision and development.

(c) Consultation

- Require consultation with Tangata whenua as part of any major development or within a certain distance from a Cultural Value site in the Proposed Taupo District Plan.
- Require consultation with Tangata whenua and Council as part of any discovery of Cultural Value site or Archaeology site as part of any major development or Redevelopment.

(d) **Statutory overlap**

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004
- New subdivision and development will demonstrate compliance with the performance standards of the Proposed Taupo District Plan 2000.
- New subdivision and development will demonstrate compliance with the Historic Place Act 1993

7.6 Community Issue - Scenic Reserves

7.6.1 Community Objective - Scenic Reserves

- (i) The Whangamata, Okaia and Otaketake Stream scenic reserves should be protected from the adverse effects of any residential development.

7.6.2 Community Policies - Scenic Reserves

- (i) Ensure that residential development does not occur within the boundaries of the Whangamata, Okaia and Otaketake Scenic Reserves.
- (ii) Promote the enhancement and restoration of the Whangamata, Okaia and Otaketake Scenic Reserves.
- (iii) Encourage the limitation of informal access points to the Whangamata, Okaia and Otaketake Scenic Reserves through the construction of formal access where appropriate.
- (iv) Ensure that the natural hydrology of surface water runoff and ground water infiltration is maintained in its natural state where appropriate.
- (v) Ensure that sediment from new subdivision and development does not enter the watercourse of the Whangamata, Okaia and Otaketake Scenic Reserves.
- (vi) Promote consultation between persons or organisations undertaking new subdivision, development or redevelopment to liaise with the Department of Conservation in regard to Scenic reserves.

7.6.3 Explanation

The Whangamata, Okaia and Otaketake Scenic Reserves are an important aspect of the Structure Plan area that provides for passive recreation opportunities, trout spawning and delineates the Whangamata Valley.

The loss of significant indigenous vegetation and significant habitats of indigenous fauna has occurred as a result of human activity, pressure from pests and invasion by weed species.

The use of covenants is one method available to developers to ensure that adequate fencing standards are employed during the development of land adjacent to the Whangamata, Okaia and Otaketake scenic reserves.

7.6.4 Suggested methods of implementation

(a) **Kinloch Area Overlay**

- Require a 10 metre setback from the new residential dwellings, to allow for an appropriate separation distance between conflicting residential development land use and the Whangamata, Okaia and Otaketake Scenic Reserves.

(b) **Education and Advocacy**

- Joint Department of Conservation and Taupo District Council education programme to inform the community of the importance of the Whangamata, Okaia and Otaketake Scenic Reserves, in particular the significance of the Whangamata Stream for trout spawning.
- Advocate the use of covenants for new subdivision and development to restrict boundary fence/hedge heights to maximum of 1.5 metre.

(c) **Statutory overlap**

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004

7.7 Community Issue - Reserves and Open Spaces

7.7.1 Community Objectives - Reserves and Open Spaces

- (i) New passive and active reserves areas should be provided for as part of new subdivision and development.
- (ii) Emphasis should be placed on retaining and enhancing existing passive and active reserve areas.

7.7.2 Community Policies - Reserves and Open Spaces

- (i) Ensure that existing passive and active recreational spaces are retained intact and appropriately enhanced.
- (ii) Ensure that new subdivision and development makes provision for active and passive recreational spaces, including accessways, bridalways and public rights of way to rural areas and ridgelines.
- (iii) Ensure that access to the lakefront is provided through the subdivision process as per the requirements of Resource Management Act 1991.
- (iv) Encourage subdivision design that provides linkages between the roading network, open space, reserve areas and cycleway.
- (v) Provide adequate car parking to service the needs of the community and recreational requirements.
- (vi) Recognise that local purpose stormwater and drainage reserves can provide for limited recreational opportunities and assist with enhancing the connectivity between the reserve and roading networks within the settlement.
- (vii) Provide green corridors and accessways as part of future development to contribute to the existing pedestrian network and link up with the recreation and scenic reserves.
- (viii) Provide public access along the length of the Whangamata Bay and the continuation of the network of pedestrian walkways to connect with this important focal point of Kinloch including pedestrian and cycle ways.
- (ix) Promote consultation between persons or organisations undertaking new subdivision, development or redevelopment to liaise with the appropriate department of the Taupo District Council in regard to Reserves and Open Spaces.

7.7.3 Explanation

There are a variety of reserves and open spaces within the Structure Plan area including recreation, scenic, local purpose stormwater, lake, marina and natural areas for use by the community. However there is a need for open space and reserves for the purpose of active recreation and visual amenity purposes in proximity to the existing settlement. This should be addressed through Development Contributions when new subdivision and development occurs.

A comprehensive Recreation Strategy is to be developed by Council which will highlight Council's role in recreational provision throughout the District. It is anticipated that documents such Reserve Management Plans and the District Cycle strategy will fit under the Recreation Strategy.

7.7.4 Suggested methods of implementation

(a) **Kinloch Area Overlay**

Identify the potential and indicative requirement for land for the purpose of vesting in new reserve area to allow for the growth of the Structure Plan area.

(b) **Education and advocacy**

- Advocate the use of covenants for new subdivision and development to restrict boundary fence/hedge heights to maximum of 1.5 metre.

(c) **Reserve Strategy and Management Plans**

- Implementation of a reserves strategy and associated management plans to address recreation, access, reserve and public parking and boat trailer parking for different recreational needs.
- Provision for recreation reserves as part of any new development or subdivision based on 8 hectares for every 1000 people.

(d) **Education and Advocacy**

- Promote Kinloch as a pedestrian and cycle friendly settlement and educate people on the benefits of using the walkways and recreational spaces as an alternative to utilising the road network.
- Advise people of boat ramp requirements and the legislative requirements under the Lake Taupo Regulations Act 1976 and amendment regulations 2003.

(e) **Statutory overlap**

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004.
- New subdivision and development will demonstrate compliance with the performance standards of the Proposed Taupo District Plan 2000.

- New subdivision and development will demonstrate compliance with the Reserves Act 1977.

7.8 Community Issue - Commercial Nodes

7.8.1 Community Objective - Commercial Nodes

- (i) Identify and provide for the establishment of new small-scale commercial development to service the needs of the Structure Plan area, while maintaining the amenity and character of the Kinloch settlement.

7.8.2 Community Policy - Commercial Nodes

- (i) Encourage the establishment of appropriate small-scale commercial development that is within keeping with the existing character and amenity of the Kinloch settlement.
- (ii) Ensure that new commercial development is located in discrete locations, and is not spread throughout the Structure Plan area.
- (iii) Encourage the use of suitable landscaping to provide separation distances between commercial development and residential development.
- (iv) Promote consultation between persons or organisations undertaking new subdivision, development or redevelopment to liaise with the appropriate department of the Taupo District Council in regard to Commercial Nodes.

7.8.3 Explanation

The Kinloch settlement has two existing commercial nodes where commercial activities are currently operate. Small-scale neighbourhood commercial development services the needs of the community and also provides for people's social and economic wellbeing. Provision needs to be made for these types of activities to occur within the Structure Plan area, so long as adjoining and existing residential development is not adversely affected.

The Structure Plan does not explicitly determine what type of commercial activities should locate either in the Kinloch settlement or wider structure plan area. The only criterion that is placed on future commercial development is that it is small-scale neighbourhood like development. It would be inappropriate for a large floor area or multi-story commercial premises to locate in the structure plan area.

Currently the Proposed Taupo District Plan does not have performance standards that pertain to commercial development outside of the Town Centre Environment. It seems likely that performance standards for commercial development in the structure plan area may be developed through the Kinloch Area Overlay.

7.8.4 Suggested methods of implementation

(a) **Kinloch Area Overlay**

Require an appropriate setback from the new commercial development, to allow for an appropriate separation distance between conflicting residential and commercial land uses.

(b) **Statutory overlap**

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004.
- New subdivision and development will demonstrate compliance with the performance standards of the Proposed Taupo District Plan 2000.
- New subdivision and development will demonstrate compliance with the Code of Practice for Engineering 2001.

7.9 Community Issue - Infrastructure

7.9.1 Community Objectives - Infrastructure

- (i) New subdivision and development should provide for the connection to a centralised community waste water treatment plant, and where necessary contribute to any requirement to provide sufficient area for irrigated disposal of treated waste water.
- (ii) New subdivision and development should provide for the connection to a reticulated water supply, and where necessary contribute to any requirement to provide reservoir sites.
- (iii) New subdivision and development should allow for the connection of overland flow paths/ephemeral water courses to the existing local purpose stormwater reserve network, through the subdivision process.
- (iv) New subdivision and development should allow for linkages between proposed open space and reserve areas and the existing reserve and open space network, through the subdivision process.
- (v) New subdivision and development should where possible employ the use of Low-impact Urban Design principles in the construction of infrastructure to support growth.
- (vi) Provision for adequate parking should be provided during the subdivision process for residential development, commercial development and for strategic reserve areas.
- (vii) Infrastructure and services such as telecommunications and electricity transmission should be located underground if feasible and practicable.
- (viii) Certain services and infrastructure such as water supply, waste water reticulation, lighting, and footpaths need to be located within the road berm.

7.9.2 Community Policies - Infrastructure

- (i) Ensure that the upgrading of infrastructure is provided for by new subdivision and development through either the Operative Financial Contributions section of the Proposed Taupo District Plan, or through the Development Contributions policy of the Long Term Council Community Plan 2004.
- (ii) Acquire land through various mechanisms to ensure that sufficient land area is available for the disposal of treated waste water via irrigation to land, and for any future reservoir sites.
- (iii) Ensure that new infrastructure constructed on or near the shoreline of Lake Taupo or adjacent to the Whangamata, Okaia or Otaketake Scenic Reserves does not adversely affect the integrity or functioning of these areas.

- (iv) Ensure the establishment of appropriate separation distances between land used for the purpose of discharging treated waste water and land used for residential dwellings.
- (v) Ensure that adequate parking should be provided during the subdivision process for residential development, commercial development and for strategic reserve areas.
- (vi) Encourage infrastructure services, such as telecommunication and electricity transmission are placed underground where this is feasible and practicable.
- (vii) Encourage the use of Low-impact Urban Design principles for new subdivision and development.
- (viii) Encourage the screening and/or colouring of new infrastructure to blend into the natural environment, where this does not compromise a Health and Safety requirement of infrastructure to be visible.
- (ix) Promote consultation between persons or organisations undertaking new subdivision, development or redevelopment to liaise with the appropriate department of the Taupo District Council or infrastructure provider in regard to Infrastructure.

7.9.3 Explanation

The construction of new infrastructure and the upgrading of existing infrastructure to cater for growth in the Structure Plan area will be provided for by new subdivision and development through either the Operative Financial Contributions section of the Proposed Taupo District Plan, or through the Development Contributions policy in the Long Term Council Community Plan 2004.

The Structure Plan identifies indicative areas for the construction of new infrastructure. This includes the acquisition of land to ensure that sufficient area is available for the disposal of treated waste water via irrigation to land, future reservoir sites, reserve areas and connection of natural overland flow paths to the existing stormwater networks. The layout of roading infrastructure, in particular collector roads, should be consistent with the indicative pattern as demarcated on the Structure Plan maps.

The construction of new infrastructure on or near the shoreline of Lake Taupo or adjacent to the Whangamata, Okaia or Otaketake Scenic Reserves should be undertaken to minimise effects on the integrity or functioning of these systems. Appropriate separation distances or buffer areas should be established between land used for infrastructure purposes and residential dwellings.

Through the design of new subdivision and development, adequate parking should be provided for residential areas, commercial development and for strategic reserve areas. Kinloch experiences peaks in traffic volumes during the summer months and public holidays, which need to be catered for through this design process.

Although not a requirement in the Proposed Taupo District Plan, telecommunication and electricity transmission infrastructure should be encouraged to locate underground where this is feasible and practicable.

More information is available on the specifics of infrastructure requirements in the Structure Plan area for the purpose of roading, waste water and water supply. This information is located in the Supporting Appendices document.

7.9.4 Suggested methods of implementation

(a) Kinloch Area Overlay

- Defined separation distance between residential dwellings and the waste water treatment plant and associated irrigation disposal fields are an important tool to avoid unnecessary conflicts. The Proposed Taupo District Plan contains a mechanism designed to promote separation distances between existing allotment boundaries and new dwellings constructed in the Rural Environment.
- Taupo District Council is part of the 4-way interagency partnership between Local Government, Central Government and Ngati Tuwharetoa working on the Lake Taupo strategy. The Structure Plan should require all new lots created through subdivisions to connect to the Kinloch waste water treatment plant, where there is no feasible or practicable mechanism to enable connection to the reticulation network.
- Identify the potential and indicative requirement for land for the purpose of discharging treated waste water via irrigation, and for any future water reservoir sites.
- Identify the indicative layout for roading pattern that will guide new subdivision and development.
- Identify the potential and indicative requirement for land for the purpose of vesting in new reserve area to allow for the growth of the Structure Plan area.

(b) Statutory overlap

- New subdivision and development will take into account the Proposed Kinloch Community Structure Plan 2004
- New subdivision and development will demonstrate compliance with the performance standards of the Proposed Taupo District Plan 2000.
- New subdivision and development will demonstrate compliance with the Code of Practice for Engineering 2001.

7.10 Community Issue - Structure Plan Boundary

7.10.1 Community Objective - Structure Plan Boundary

- (i) Identify the boundary of the Structure Plan area taking into account the topography of the land, existing land use patterns, and the natural and manmade boundaries that define Kinloch.

7.10.2 Community Policy - Structure Plan Boundary

- (i) Ensure that the Structure Plan area is demarcated on the appropriate maps to assist with managing new subdivision and development, coupled with the indicative placement of future infrastructure and services.

7.10.3 Explanation

The demarcation of the Structure Plan boundary is an important component of the document. To be an effective tool for assisting with managing growth and providing future infrastructure, the Structure Plan boundaries need to be clearly defined on the appropriate maps.

7.10.4 Suggested methods of implementation

(a) Kinloch Area Overlay

- Demarcate the Structure Plan boundary to assist with managing new subdivision and development, coupled with the indicative placement of future infrastructure and services.
- Demarcate the Structure Plan boundary as a Kinloch Area Overlay through the Variation process as outlined in the 1st Schedule of the Resource Management Act 1991.

(b) Statutory overlap

- New subdivision and development will take into account the Kinloch Community Structure Plan 2004

Part 4 – REFERENCENCES AND TERMS

8 Glossary

Active Recreation

Active recreation are categorised as activities that require moderate to high levels of physical activity and fitness. These activities may occur individually or socially, and are located either at formal or informal locations. Pursued for fitness, enjoyment, relaxation, education, social participation and/or the pursuits of personal interests.

Amenity

The Resource Management Act 1991 defines amenity as, "...those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes". Amenity values are subjective to each individual person, and may be influenced by their particular circumstances.

Character

While the Resource Management Act 1991 does not define character, the Oxford Dictionary defines it as, "Collective qualities or peculiarities that distinguish an individual or group...". Although there is a subjective component to 'character', it can be more readily described than amenity.

Connectivity

Connectivity is the property of being connected or the degree to which something has connections. For the purpose of the Structure Plan, the term connectivity is used to explain the linkages between the existing reserve, roading and local purpose stormwater networks.

Cluster development

Cluster development allows for the clustering of residential dwellings on an allotment where ordinarily the grouping of dwellings would contravene a rule in a District Plan in regard to density and separation distance. The concept entails setting aside the balance of the allotment as open space areas that are retained in either their current land use, or remediated to a former vegetative state.

Demarcation

Demarcation is the process by which features are drawn onto maps. The demarcation of the Structure Plan boundary onto the Proposed Taupo District Plan maps is an example of this.

Density areas

The structure plan identifies 3 discrete density areas that relate to the future development. The density areas have a minimum and average lot size. This is to enable a minimum standard, and variability in lot sizes through the subdivision process.

Environment

The Proposed Taupo District Plan utilises four broad Environments to group the natural and physical resources of the Taupo District. These four categories are Residential Environment, Rural Environment, Town Centre Environment and Industrial Environment.

Gateway to Kinloch

This term defines the entranceway to Kinloch at the corner of Whangamata and Kinloch Roads. Visually it is one of the 'Icon' roadways in the District in that it is distinctive and memorable.

Incongruous

Something that is incongruous is lacking in harmony or compatibility or appropriateness.

Infrastructure

For the purpose of this document infrastructure refers to the networks that are required to adequately service a community. These are waste water reticulation, water supply, reserve networks, stormwater networks, footpaths, electricity transmission, telecommunications and street lighting.

Integrated management

The Resource Management Act 1991 directs District and Regional Council's to achieve integrated management (i.e. complimentary and symbiotic approaches to management).

Kaitiakitanga

Kaitiakitanga or guardianship is inextricably linked to tino rangatirota and is a diverse set of tikanga or practices which result in sustainable management of a resource. Kaitiakitanga/guardianship involves a broad set of practises based on a world and environmental view.

Low-impact urban design principles

Low-impact urban design is a move back to soft engineering methods such as natural percolation and infiltration of stormwater through the use of natural overland flow paths. This is in contrast to where hard engineering practises dictated that stormwater was captured in a reticulated network, and discharged into a receiving environment, normally a water body.

Node and Nodal development

A node or nodal point in terms of growth planning represents the centre or focal point of any growth and development. The identification of growth nodes are an important component of planning for future requirements of a community. Nodes can be viewed

on both a small-scale (i.e. commercial node within a town) or on a macro scale (i.e. Kinloch is a growth node in itself).

Overlay

An overlay is a planning term that demarcates on a planning map and provides additional planning information for a certain issue. Commonly overlays are used to define Landscape areas in District Plans.

Passive Recreation

Recreational activities that require low levels of physical activity and fitness. May occur individually or socially on formal or informal locations. Pursued for fitness, enjoyment, relaxation, education, social participation and/or the pursuits of ones interests.

Radial density and concentric planning theory

This concept was developed by Walter Chrystaller and by August Losch in the early 20th century to describe the manner in which growth would occur in a perfect environment outwardly from a central nodal point. Naturally there is no such thing as a perfect environment, however the theory that development should decrease in density as it progresses outward from a nodal point is relevant to the Kinloch example, given the boundaries that have been demarcated for the Structure Plan area.

Redevelopment

For the purpose of the structure plan, redevelopment is a term used to define the deconstruction of dwellings in the existing Kinloch settlement, and the construction of new dwellings on these sites.

Reticulated catchment

A reticulated catchment describes a discrete area of residential development that is serviced by a series of infrastructural components such as water supply and waste water reticulation. The reticulated catchment of Kinloch is an important consideration in the Structure Plan, as it needs to be viewed holistically to capture any efficiency from connecting new subdivision and development. An example of this is programming upgrades to the waste water system to better enable the current system to reduce nitrogen.

Reverse Sensitivity

Reverse Sensitivity occurs when a new activity (such as a house) is established adjacent to an existing activity (such as a port), and the residual effects of the existing activity cause an adverse effect on the more sensitive activity. There are many documented cases of existing activities being forced to relocate due to new and more sensitive activities being established. This issue can be overcome by recognising that a separation distance is sometimes necessary that provides a buffer between incompatible land uses.

Section 104(1)(c)

This section of the Resource Management Act 1991 allows for a decision maker (in this case Council) to have regard to 'other documents' in the consideration and determination of a resource consent process. This is a very important linkage for any structure plan, as by themselves, structure plans have no statutory weighting (i.e. they have no legal basis or standing as they are not prepared via the same process or with the same requirements as a District Plan for example).

Separation distance

Separation distances provide a buffer, or space, between different types of incompatible land use. There is no net size for a buffer area, as it is dependent on the type and nature of the competing land use. An example may be the provision of a separation distance from new residential development and a Scenic reserve. See also reverse sensitivity.

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Part 5 – KCSP MAPS