

7 Evaluation criteria

7.1 Evaluation Criteria for growth locations

To evaluate each of the areas identified a set of evaluation criteria were developed. These are further explained in *Table 2 Assessment Criteria* below.

Selection of criteria

These criteria were derived with specific reference to Part II of the Resource Management Act 1991. Part II sets out the key criteria for addressing resource management issues. Some are very specific such as archaeological sites. These can be designed around as part of future structure planning for an area. However other Part II matters are much broader in effect such as the effects on landscapes and natural areas. These impact on the shape and form of whole urban areas. It is on these broader criteria that the evaluation criteria have been based.

Of particular note is the need to consider the “efficient use of natural and physical resources”. It is reflected in criteria that look at proximity to key services, relative costs of infrastructure and impacts on transport infrastructure. This links in strongly with the Council’s responsibilities under the Local Government Act 2002 and particularly the 10th Schedule.

The direct links between the matters in Part II and the evaluation criteria in Volume Two – Options - have been specifically engineered. Given that the Proposed District Plan will be the main implementation tool for Taupo

District 2050, it is important that the foundations of Taupo District 2050 are found in the overarching statute. It is likely therefore that these evaluation criteria will have some application in resource consent processes.

In addition the strong guidance from Part II, the selection of evaluation criteria was also influenced by the key themes from previous planning documents. Structure plans, the community outcomes, Taupo-nui-a-tia 2020 and VAST are all examples of the wide body of previous planning that has been undertaken. Reflecting the key messages to come from these documents was also important. Doing so ensures that the input from the community through the various consultation processes feeds into the development of Taupo District 2050.



Weighting of criteria

The criteria were given different weighting factors with 1 being the lowest and 4 being the highest. The score that an option gained for specific criteria was then multiplied by that weighting factor, for example a score of two ✓✓ for a criteria that was weighted with a 3 would mean an ultimate score of 6 for that criteria.

This meant that some criteria had a more significant part to play in the selection of the preferred growth areas. This was deliberately done because in reality some factors like flood hazard areas have a more significant effect than others like topography.

The weightings also differed between the northern, southern, south western and south eastern growth areas. This was because the issues differed between localities, for example access to employment centres was very important in the context of Taupo and Turangi as the major employment centres. Conversely, the holiday character of the south western settlements like Kuratau meant that access to employment was significantly less important.

Because the four general growth areas were assessed independently, the fact that the weighting of criteria in the northern growth area differed from the south eastern growth area had no effect.

Table 1 Weighting of evaluation criteria

Evaluation criteria	Weighting factor			
	Northern Growth Area	Southern Growth Area	South Western Growth Area	South Eastern Growth Area
Ability to create linkage between settlement areas	4	4	2	2
Location of geothermal systems, flood and landslide hazard areas	4	4	4	4
Setback from Lake Taupo and tributaries	4	4	4	4
Proximity to key transportation corridors	3	3	2	2
Location of incompatible land uses	2	2	2	2
Access to employment centres	3	3	1	1
The location of outstanding and amenity landscape areas	4	4	4	4
The location of significant natural areas	4	4	4	4
The location of activity centres and community infrastructure	3	3	1	1
Topographical limitations	1	1	1	1
Efficiency and affordability of physical infrastructure	3	3	3	3



Table 2 Assessment Criteria

Assessment Criteria	Description
<p>Ability to create linkage between settlement areas</p>	<p>The development of new growth areas has the potential to disperse people further from existing communities, thereby making it more difficult to integrate the new area with the existing areas in terms of both social cohesion as well as crucial services such as public transport.</p> <p>New growth areas located adjacent to existing urban areas or along key transport corridors have the potential to link well with existing urban areas. In contrast, new growth areas that may be greater distances away or poorly connected to transport corridors tend to undermine social cohesion, make infrastructure provision more expensive and reduce the sustainability of the urban areas.</p> <p>This is a crucial factor for larger urban areas like Taupo and Turangi where the bulk of the population lives. Here the achievement of a critical mass of people makes provision of infrastructure important. For example, the location of new growth areas along key local transport corridors will make public transport significantly cheaper in the future. This principle plays an important part in shaping the broader urban form.</p>
<p>Location of geothermal systems, flood and landslide hazard areas</p>	<p>There are significant geothermal systems within the Taupo District. Some of these are used for the extraction of geothermal energy and are an important local and national resource. Depending on the method of extraction and discharge e.g. net extraction from the geothermal reservoirs, adverse effects such as hydrothermal eruptions and differential subsidence can arise. New areas of residential development over geothermal systems subject to a net extraction regime or having hot ground areas carries risk and is not favoured for that reason. Some forms of industrial activity are less susceptible to those risks and indeed, some industrial activities purposely locate over or in close proximity to geothermal systems to take advantage of geothermal heat or the energy source.</p> <p>Flood and landslide hazard areas provide significant areas where there are substantial risks associated with occupation of the land. These effects cannot easily be mitigated so growth areas that avoid them are favoured over those that are affected.</p>
<p>Setback from Lake Taupo and tributaries</p>	<p>As residential development continues to spread around Lake Taupo, growing concerns have emerged about the environmental impacts on the landscape character around the margins of the Lake. The set back of growth areas from the Lake is based on a desire to minimise the impacts of continued urban development on the landscape values of the margins of Lake Taupo.</p> <p>To reflect these concerns, new development spreading back from the Lake is preferred over development which spreads along the lakeshore. Essentially, depth to settlements is favoured over breadth.</p> <p>This philosophy applies to the Waikato River and to Lake Taupo itself with its major tributaries including the Tongariro River and the Kuratau River</p> <p>There is no specific distance at which the landscape effects become minor, instead it becomes a matter of relativity with a growth option near the Lake margin being less favourable than one located further away. More specific setbacks from the Lake will need to be considered as part of future structure planning for identified growth areas.</p>



Assessment Criteria	Description
Proximity to key transportation corridors	<p>Transportation corridors are important for enabling people to move throughout urban areas to schools, work, commercial centres and other activities. They are likely to become more important in the future as more of the population seeks to utilise public transport. For these reasons transport corridors have always been seen as a crucial factor in shaping urban areas.</p> <p>Growth areas which integrate well with key transport corridors are considered more favourable than those which rely on relatively minor local roads.</p> <p>An important consideration is the state highway network which passes through many of the urban areas in the District. Transit promotes the importance of the state highway network for national movement. As a result, growth areas which place significant pressure on the state highways are viewed unfavourably compared to those which promote use of the local roading network.</p>
Location of incompatible land uses	<p>As urban areas continue to grow there are increasing instances where relatively sensitive residential areas come into contact with incompatible land uses such as factories, airports, power stations or wastewater treatment plants. This results in residents raising concerns about noise and air emissions, odour and traffic.</p> <p>These incompatible land uses are vital to the functioning of the overall urban area and are often limited in where they can locate. As a result it is considered more desirable to direct residential growth away from these incompatible land uses.</p>
Access to employment centres	<p>The Taupo and Turangi central business districts and industrial areas are considered to be the main employment centres within the District. Growth areas which have good linkages to these centres are considered to be more desirable as this will generally result in reduced vehicle trips and greater opportunities for public transport in the future.</p> <p>It is acknowledged that new growth areas and some existing urban areas may well develop new employment centres in the future. This is more likely to occur where a substantial base of population can be established.</p>
The location of outstanding and amenity landscape areas	<p>In conjunction with the Proposed Taupo District Plan, work has been carried out to identify those landscapes which are considered worthy of protection. From that work two tiers of landscapes have been identified. Outstanding landscapes are considered to be the most important and are not only of district importance but in some instances of national significance i.e. Lake Taupo. On the other tier are the amenity landscapes which are important at a local community level such as the ridgeline to the west of Tapuaeharuru Bay.</p> <p>Growth areas that affect these important landscapes are considered less preferable to those that might not. However, in some instances specific development proposals can be designed to complement these broader landscapes.</p> <p>Because work on identification of these landscapes is continuing, a combination of previous survey work and the most recent work by the Isthmus Group has been used to assess the potential growth options.</p>
The location of significant natural areas	<p>The Proposed Taupo District Plan identifies areas throughout the District with a high biodiversity value as significant natural areas. These areas have been identified in a district wide survey which was undertaken in 2000. This survey has been further built on by site visits and comprehensive site analysis.</p> <p>Development can potentially have an adverse effect on the character and the associated biodiversity values of these areas. However, it is recognised that in some instances specific development proposals can be designed to complement these natural</p>



Assessment Criteria	Description
	areas.
Topographical limitations	It is possible to build urban areas over relatively steep ground, but it is significantly cheaper to develop on level ground. For this reason, potential growth areas are preferred on flatter ground (slope under 15°).
The location of activity centres and community infrastructure	<p>An activity centre is where people shop, work, relax and socialise. They provide the focus for services and social interaction. The Taupo and Turangi central business districts have been identified as the main activity centres with secondary centres emerging in Kinloch and Acacia Bay.</p> <p>Community infrastructure refers to facilities such as libraries, community halls, schools and hospitals. This infrastructure is crucial to the ongoing development of communities.</p> <p>The proximity of potential growth areas to activity centres and community infrastructure is important in ensuring social cohesion, reduced vehicle trips and stronger communities.</p>



7.2 Evaluation process

For each of the broader growth areas a set of potential options were identified. These potential growth options were selected using a combination of the following:

- The stated assumptions
- Physical site investigations
- Review of previous structure plans
- Analysis of constraint maps using a geographic information system

Precise boundaries for the different locations were not defined as this assessment focused on a broad analysis of urban form. Further refinement of boundaries will follow as a part of future structure planning once the broad direction has been established by Taupo District 2050.

Maps identifying the locations of each of the different growth options which were evaluated are attached in appendix 1.

No growth options were identified near the small settlements in close proximity to the Waikato River and associated hydro lakes. This is because current patterns of growth suggest that substantial new growth areas will not be required.

