



Part C Background

Taupō town centre looking toward Tongariro Street and Tongariro Domain (1983)

Formation of this Plan

This section describes relevant growth planning work that has influenced the development of this Structure Plan.

Guidance from Taupō District 2050 (TD2050)

The Taupō District 2050 (TD2050), the growth management strategy for the district, was adopted in 2006. It provides a policy framework to guide where and how future urban growth should occur. TD2050 advocates the use of structure planning to determine the extent of the identified future growth areas, and the level of planning needed to meet future infrastructure requirements to support that growth.

TD2050 states that development of a structure plan should contain consideration of the following matters:

- Landscape and visual amenity
- Hazards and land suitability
- Natural resources
- Heritage sites
- Existing and desired land-use and
- Infrastructure
- Funding, timing/staging and affordability

TD2050 sets out strategic directions on the following matters which provide further policy guidance:

- District Character
- Outstanding Landscapes & Natural Areas
- Settlement Patterns & Urban Form
- Well Designed Places
- Strong Communities
- Tangata Whenua
- Sustainable Economy
- Integrating Land Use, Infrastructure and Funding
- Transport Modes & Connections
- Water Resources
- Open Space Networks

A comprehensive approach to design is also detailed in TD2050. It states that urban areas in the Taupō District have predominantly been designed to be car-orientated. Adapting this pattern to meet more diverse lifestyle and economic trends will need to utilise certain basic design principles. These design and growth principles within TD2050 have influenced the goals and outcomes of this Structure Plan.

Previous structure planning

The Taupō Urban Structure Plan (2004) (TUSP) emphasised the East Taupō Arterial's (ETA) role as an urban fence, and identified the opportunity to establish transport and business hubs along the ETA, particularly at intersections with existing roads (i.e. Broadlands Road, Crown Road and the Airport). The Plan identified land suitable for future industrial and commercial growth and also suggested the investigation of options for large format retail locations. The identification of the character and identity of Taupō was signalled as important to ensure Taupō continues to develop as a unique place to live, work, visit and play.

The Taupō Town Centre Structure Plan (2004) (TTCSP) looked at a range of issues within the town centre and made recommendations. These included recommended provisions on building height, car parking and streetscape revitalisation. The plan proposed a number of changes to traffic circulation within the town centre, including traffic calming of the current State Highway 1, a second bridge crossing, and use of Titiraupenga Street as the main route around the town centre. The preferred short and long term options also recommended continuation of roading around the Great Lake Centre connecting to Tamamutu Street, with the space on the Great Lake Centre side of the road to be used for a community building. Although this Structure Plan was adopted, it was not accompanied by a District Plan Change or a financial commitment so implementation has been limited.



This structure plan process

The Structure Plan has gone through a long and robust process of development. The following timeline of events describes this process:

- April 2008, Scoping meetings with stakeholder groups to develop the Inception Report (scoping report).
- June 2008, Council adopted the Taupō Urban Commercial and Industrial Structure Plan Inception Report.
- May 2008, first meeting of the Strategic Partners Forum, made up of specific interest groups.
- November 2008, ideas collection with informal discussions with the public in Horomatangi Street over a 2 week period and a design competition for redevelopment of the town centre.
- February 2009, Village Well "Place Making Project", including public workshops with over 500 local people.
- February 2009, comments sought on the draft goals and vision from all the key stakeholders and the wider public.
- May 2009, public open days were held at the Great Lake Centre to provide the community with the base information which was forming the Structure Plan and seek feedback.
- Throughout the development of the draft Structure Plan Council officers held meetings with key stakeholders, individuals and community groups who had an interest in the project, including local hapu and trust boards.
- December 2009 – February 2010, formal consultation with open days in Taupō, Acacia Bay, Turangi and Mangakino, community and interest group meetings, discussions with the public in the town centre, information provided in the newspaper and on the radio. In total 440 submissions were received (including a collective submission).
- May 2010 - June 2010 Council Hearings. Over 60 submitters spoke to their submissions at the formal hearings.
- July 2010 Submission and presentation by Ngā Karanga Hapū o Tauhara.
- July 2010 Council deliberated and passed a suite of resolutions on specific issues so that the draft Structure Plan could be appropriately amended.



Open days held at the Great Lake Centre



Informal consultation on Horomatangi Street

Background information

Consultant reports & reference material

A range of technical and expert advice was sought and referred to in the writing of this Structure Plan. As the Structure Plan has developed through the drafting and consultation phase, the Council has made decisions taking into account but not necessarily reflecting all of the recommendations in the following reports:

- Ecological analysis (Wildlands Consultants Ltd)
- Economic analysis (Brent Wheeler Ltd)
- Geotechnical assessment (Tonkin and Taylor Ltd)
- Landscape assessment (Boffa Miskell Ltd)
- Urban design study (Boffa Miskell Ltd)
- Heritage report (Matthews and Matthews)
- Tourism assessment of a Cultural/Arts/ Heritage Centre (Tourism Resource Consultants)
- Taupō town centre place making road map (Village Well)
- Taupō town centre traffic modelling (Gabitias Porter)

From the information in the technical reports a series of sieve maps were derived. These identified the various influencing factors and showed where there were areas of overlap. Copies of the sieve maps can be found in the Appendix. Those sieve maps assisted with the process of determining which parcels of land should be zoned for future industrial development. They also helped identify land that might be more sensitive to development activities.

Ecological analysis

The purpose of the ecological analysis of industrial growth areas was to evaluate vegetation, habitat, flora and fauna using existing information and field studies. The analysis was also required to recommend opportunities for avoiding, minimising or mitigating potential negative effects of development of the land, and identify any opportunities for ecological restoration. An assessment of TDC's Catchment Management Plan requirements was also made.

The analysis has identified sites of ecological significance which are considered as constraints to future land development. The most significant habitat type is geothermal habitat at Crown Road and Broadlands Road. and appropriate buffers from development for this vegetation are recommended.

One small stream and small wetland system was recorded as part of this study, near the Taupō Native Plant Nursery. The ecological analysis recommends this stream and wetland be fenced off if the site is to be developed for industrial purposes and that margins are planted with locally-sourced indigenous plant species.

Other significant ecological issues relate to management of steeply-incised gullies and stormwater management. Development planning will need to take account of these gullies and stormwater management requirements, to ensure that sediment and other contaminants are not discharged to the lake.

The gullies also represent a significant opportunity for ecological restoration of indigenous vegetation and habitats. If this is done to a high standard, these gullies will become a significant ecological asset for Taupō. They can also be utilised as part of an extended network of walking tracks and cycle ways in and adjacent to the township.

Economic analysis

The purpose of the economic analysis was to achieve the following objectives:

1. Provide a vision for the future economic purpose and function of the Taupō urban area.
2. To forecast possible location and form of future commercial and industrial growth within the Taupō township that is consistent with the strategic objectives outlined in Taupō District 2050, and taking into account the Taupō Urban and Taupō Town Centre Structure Plans (both 2004).
3. To identify the role that large format retail will play in Taupō, and provide direction on its scale and location if it is deemed appropriate.
4. To provide a demand estimate (area) for future land requirements.
5. To assist with District Plan zoning, which will follow this Structure Plan.
6. Provide direction for managing any potential effects of commercial and industrial growth in Taupō on the existing Taupō town centre and other identified growth areas.

There are many ways in which the Taupō economy is a microcosm of the New Zealand national economy, with a heavy reliance on natural resources, a dominance of pastoral activity, gradually declining manufacturing sector, increasingly being supplanted by tourism and strong dependence on the service sector.

Population growth and visitor numbers might slow down or remain static, as well as construction (e.g. housing) activity. But if margins are widening or becoming more sustainable, if value is being added through higher quality goods and services, and if tourists spend increases as a result of a visitor staying longer, then economic value is likely to be added – and that will, eventually, appear in improved GDP output and like measures.

The economic analysis suggests that a responsive planning approach which complements the likely economic future should:

1. Be founded on the expected qualitative change rather than simply with quantitative change;
2. Recognise the increasing value in satisfied customers from offering quality goods and services. Value is likely to be added through improving margins rather than via simply volume growth.
3. Recognise that more environmentally efficient means for using resources and more sustainable practices are being incorporated into standard practice as a matter of sound commercial logic.

Therefore the economic vision for the District should seek to capture themes such as:

- Developing lifestyle choices
- Offering multiple opportunities for economic development
- Offering multiple employment opportunities
- Sector based targets such as development centred around the tourism and visitor industry
- Development and growth paths anchored in sustainable environmental requirements

Geotechnical assessment

The purpose of the geotechnical analysis of industrial growth areas identified in the Structure Plan was to assess the risk of fault lines, flood hazard areas, hot ground hazard areas, known contaminated or potentially contaminated sites, areas of land instability (landsliding and tomos), erosion hazard areas and areas of existing or potential subsidence and settlement.

A number of risks are present in the industrial growth areas and need to be considered during any future development. These are as follows:

- Faulting associated with volcano-tectonic movements in the Taupō Volcanic Zone. These faults are mapped;
- Flood hazard areas – These areas are generally confined to the floors of ‘box’ gully systems. Shallow dry stream channels are present in all of the areas studied.
- Hot ground hazard areas – The Tauhara Geothermal Field underlies significant portions of the study area and surface expressions are located in the Broadlands and Crown Road Geothermal reserves.
- Contaminated land – The TDC and EW have identified an area west of Rakaunui Road, as having been infilled with wood waste and/or used as an industrial landfill. Elevated concentrations of chemicals exceeding guideline levels for a commercial/ industrial site may be present. There may also be contamination of surface soils at the Taupō Native Plant Nursery site associated with use or storage of pesticides and fertilisers.
- Land instability (tomos) – The formation of tomos is largely unpredictable, but virtually all of the study area is underlain by Taupō Pumice deposits which are susceptible to erosion and potentially to tomo formation. Areas considered to be at high risk of tomo formation are those with incised gully systems. Tomos may also form due to geothermal activity.
- Land instability (Landsliding) – Landslide hazard areas are largely confined to the sides of incised gully systems.
- Subsidence - Associated with the extraction of geothermal fluids for electricity generation, subsidence is possible across the Tauhara Geothermal Field.
- Settlement – Any areas of non-engineered fill may undergo greater settlement than other parts of the study area. This will need to be investigated case by case during development.
- Erosion hazards – Some erosion hazards mostly coincident with landslide hazard areas on the flanks of incised gully systems and moderately steep terrace edges have been identified within the industrial growth areas.
- Erosion – This can also occur in pumice soils on gently inclined slopes, particularly where the vegetative surface cover has been removed.

Landscape assessment

The purpose of the Landscape Assessment was to look at the future industrial growth areas and identify sites with landscape significance.

For each of the Structure Plan industrial growth areas an assessment was completed which assessed elements of the landscape i.e. landform, structures, land cover, views. A sensitivity category was then applied to each area. The areas with medium to high landscape sensitivity have been either excluded from the recommended industrial zoning process in this plan or given a sensitive category to which additional District Plan provisions are recommended to give consideration to the landscape values.

The following table summarises the landscape categories applied to the Structure Plan areas.

The Solid Energy sites on Aratiatia Road did not form part of this initial landscape assessment and were subsequently added to the identified industrial growth areas through the submissions and deliberation process.

FIELD	TYPE	AREAS	RECOMMENDED APPLICATION	
			Structure Plan Framework	District Plan Provisions
LANDSCAPE SENSITIVITY	LOW Sensitivity	Parts of all growth areas except 3B	Heavier Industrial activities and other activities with high visual amenity impacts should be located in the low sensitivity areas.	Development in general accordance with Commercial and Industrial Activity Provisions.
	MODERATE Sensitivity	Parts of Area 1B and Area 3B	Light Commercial activities with lesser bulk, scale and site coverage requirements. Promote strong amenity and mitigation planting framework.	Consider activities with lower site coverage and ability to respond to landform through building form. The ability to protect and enhance existing landscape features should be balanced against introduced adverse effects.
	HIGH Sensitivity	Parts of Area 1B and Area 3B	It is recommended that commercial and industrial activities within high sensitivity areas are restricted. If demand is not met through low and moderate sensitivity areas, specific activities that are capable of low-impact development may be considered. Alternatively, more intensive use of low sensitivity areas could be allowed for.	Development and landscape change should be restricted in these areas with a preference for continued rural use. Proposed development demonstrating overall landscape benefits (net gain) to be considered as a discretionary activity. Provisions should require rigorous assessment of effects for any proposed activity.
LAND USE INTERFACES	Transport Corridor	All growth areas	Give priority to landscaping along road corridors where streetscape amenity and mitigation of new development can be achieved.	Require minimum yard setbacks with landscaping standards. Particular planting palettes and design responses to be promoted to ensure continuity.
	Conflicting Land Use Activity.	Areas 1A, 1B, 2C and 2D	Allow for adequate setbacks and landscaping buffers.	Each interface to be looked at individually to identify appropriate treatment. Setback treatments, building and activity controls to be explored.
LANDSCAPE FEATURES	Gully System	Areas 1B, 1D, 2C, 2D & 3A	Promote as multi-purpose open space areas achieving amenity, passive recreational, visual mitigation and stormwater management functions.	Development and landscape change should be avoided in these areas with opportunities for enhancement through development contributions.
	Geothermal Area	Areas 1B & 2C	Promote as multi-purpose open space areas achieving amenity, passive recreational and visual mitigation functions.	Development and landscape change should be avoided in these areas with opportunities for enhancement through development contributions.

Urban design study

The purpose of the Urban Design Study was to:

- Identify options for locating future commercial floor/land area requirements, and any town centre design changes required to facilitate these options
- Develop urban design guidelines to assist in successful growth and implementation of desired changes to the town centre.
- Provide urban design input into District Plan provisions for the greenfield industrial areas.
- Identify revitalisation proposals for the town centre.
- Reassess the transport flows in and around the town centre as identified in Taupō Town Centre Structure Plan (2004)
- Identify alternatives for better linkages between the town centre, the Lake and Taupō Boat Harbour and the Tongariro Domain.
- Analyse the benefits and costs of a civic centre and discuss potential location within the town centre.
- Identify the potential for “gateways” along the ETA as entrances for Taupō Town.

The recommendations from this study are discussed and incorporated throughout this Structure Plan.

Heritage report

The purpose of this report was to identify and assess built heritage and historical sites within the Taupō town centre study area and provide recommendations for protection and ongoing management of these.

- Key recommendations for the protection of heritage resources in Taupō township are:
- Review, amend and strengthen the current District Plan provisions for historic heritage in accordance with New Zealand Historic Places Trust (NZHPT) guidelines.
- Add to the existing District Plan Schedule of Sites of Historic Value by including more individual places.
- Create a particular Cultural Heritage precinct or overlay zone to recognise the collective value of Tongariro Domain and the surrounding associated areas.
- Utilise a range of non-regulatory methods to encourage heritage protection and recommendations for community consultation.
- Continue research on Post War buildings, planning concepts and the influence of Modernism in Taupō.

Tourism assessment of a proposed Cultural/Arts and Heritage Centre

The purpose of the tourism assessment was to look at the viability of a Cultural Arts and Heritage Centre in Taupō and potential locations.

As part of the Long Term Council Community Plan 2009-2019 Council identified the potential for a new council administration building, and possible co-location with a Cultural/Arts and Heritage Centre. This was investigated as part of the development of this Structure Plan and the potential combination of these activities was addressed through the tourism assessment.

Three visitor scenarios were developed for the Centre: optimistic (100,000 visitors), pessimistic (53,000 which is double the current numbers visiting museum) and a mid point between the two.

The total economic impact for the mid point scenario was estimated to be \$1,297,635 per year. This included impacts such as an increase in museum entry fees, and additional wages being paid and flowing on within the local economy.

The amount of visitors' direct spending in this scenario could support 27 full time equivalent employees, after allowing for direct, indirect and induced employment (based on 1.0 FTE for every \$80,000 of new direct output).

The key components for the location for a successful Cultural/Arts and Heritage Centre were identified as being:

- Adequate, easily accessible and safe car/coach parking facilities, positioned so as not to detract from the aesthetics of the site
- Easy and obvious pedestrian access to the building, and to the relevant part of the building if there is to be multiple levels and uses
- A location that would add value to the visitor experience through the landscape; especially a view of Lake Taupō and the mountains and the relationship between the mountains, lake/river and the Cultural Arts and Heritage Centre
- A prominent location

From a visitor flow perspective, it would be hugely beneficial for the Cultural/Arts and Heritage Centre to be in close proximity (and visible) to the I-Site and on the main tourist flows. Ideally the I-Site would be part of the Cultural/Arts and Heritage Centre.

If the building was an attraction in itself due to its architecture and surrounding landscape, then it would be easier to create awareness of the Centre for potential visitors (e.g. through it being photographed and included in visitor information sources).

Taupō town centre place making road map

Town Centre Taupō and Taupō District Council engaged Village Well to develop a place making road map to help inform the development of the Structure Plan. Village Well spent a week in February 2009 on the ground in Taupō undertaking site visits and running workshops with traders, community members, Councillors and Council officers, private property owners and key stakeholders. The place making road map summarised the outcomes of that consultation.

Village Well distilled a “Taupō place essence” from the visioning exercises. That place essence sits at the front of this document as a reminder of what the Community thought Taupō is about.

The road map then went on to provide a vision for the town centre and a set of principles:

Renew

- Renew our faith and confidence in what we can be
- Renew our spirits and belief in a new chapter and compelling vision for Taupō

Refresh

- Refresh our image and identify
- Refresh and update our retail, commercial, entertainment, civic and cultural product and experience

Reconnect

- Reconnect our town centre to its heart and waterfront
- Reconnect and activate our laneways to increase walkability and connection
- Reconnect our town with the international stage

An analysis of key issues and opportunities produced a series of recommendations looking at:

- The waterfront area
- The boulevard, Tongariro Street
- Civic Heart
- Taupō Boat Harbour
- Laneway areas
- Rest areas
- Cultural and entertainment
- Retail core
- Fresh food offer
- Recreation and garden areas
- Light industrial/commercial
- Wayfinding and access
- 21st Century school

Taupō town centre traffic modelling

Gabities Porter were engaged to consider a number of proposed changes to the road network in the town centre and identify potential network deficiencies.

The modelling was undertaken in three stages:

Stage 1 description

- Traffic calming along Tongariro Street/Lake Terrace. Tongariro Street/Lake Terrace between Spa Road and Titiraupenga Street modelled at 30 kms.
- Tongariro Street reduced to 2 lanes.
- Signals removed from Story Place/Tongariro Street intersection and replaced with Give Way control for Story place and Heuheu Street.

Stage 2 description

- As for stage 1
- Priority given to Titiraupenga Street traffic through the addition of Give Way control to the side streets of Tamamutu and Heuheu Streets.
- Titiraupenga/Lake Terrace intersection changed to a Give Way from the west giving priority to Titiraupenga traffic.

Stage 3 description

- As for stage 2
- Additional flyover crossing southbound, Norman Smith Street – Nukuhau Street with dual circulating roundabout at Spa Road/Nukuhau Street/Gascoigne Street intersections.
- Right hand turn banned at existing Tongariro Street/Norman Smith Street intersection.

The report comes to the following conclusions:

- The traffic calming of Tongariro Street is likely to result in the displacement of traffic onto Ruapehu Street.
- To alleviate this pressure it would be desirable to reprioritise Titiraupenga Street at the same time as major changes to Tongariro Street.
- Between the traffic calming and Titiraupenga Street priority changes, it is evident that the traffic moving through the town centre road network can be affectivity managed such that traffic flows evenly along the existing north-south corridors without congestion in the vicinity.
- It is recommended, however that further investigation is required to address the congestion modelled on the 2011 and 2021 road network at Norman Smith Street, Poihipi Road and on the Control Gate Bridge and that traffic merge locations either side of it. This issue will need to be considered in the future regardless of any town centre improvements.

This modelling provides an indication of the likely future changes to the use of the roading network as a result of improvements. However, the report notes that it will be necessary to monitor and it may be desirable to undertake further modelling in the future when more specific street improvements are identified.

The recommendations from this report informed the development of the consultation version of the Structure Plan, however changes to the Structure Plan through the submissions and deliberations process mean that further traffic modelling may be required prior to significant street upgrades.

Industrial infrastructure overview

The purpose of this section is to provide an overview of the infrastructural issues associated with the different industrial growth areas. This overview will help inform asset management planning and future Long Term Plan decision making by the Council, as well as signal to potential developers some of the servicing challenges that must be overcome.

Wastewater, drinking water and stormwater

Part B 'Land use patterns', identifies the preferred industrial expansion areas on the eastern fringes of Taupō. A review has been undertaken by the Council water supply, wastewater and stormwater asset managers to assess how the 'three waters' services may best be provided for the identified areas.

All the identified areas are serviceable from an infrastructure perspective, but provision will need to be made for each area to access the networks. Some areas will be more expensive to service than others, and these costs and the upgrade timing may have an effect on which areas are developed first. A more detailed capital works program will be developed for consideration as part of the 2012 Long Term Council Community Plan (LTCCP) and then reviewed as part of subsequent LTCCPs.

The three industrial growth areas identified in the 'Land use patterns' section promote a range of land suitable for different types of industrial activity. They also reflect separate serviceable areas. More discussion around future land use and servicing issues for each area is detailed in this section.



Area 1 - Centennial/Rakaunui Road

This area is intended for industrial activity that may require a large land area such as outdoor storage or warehouse type buildings, and for activity that may be considered heavy industry such as large factory buildings. The location is also close to geothermal activity and primary geothermal resources users, which may provide opportunities for utilising residual heat as part of industrial operations. The area has a history of zoning for heavy industrial activity, and it is intended that new District Plan zoning provisions will promote future activity consistent with those industrial activities already established in this area.

Water Supply

This area is currently serviced by the Taupō District Council Centennial water supply scheme. It has adequate pressure, but does not meet current best practice for reservoir storage. Solutions include upgrading the stand alone system or connecting the area to the Taupō town main supply, both of which are expensive. However, a significant portion of this work is required to service the existing area, and only a portion required to provide for growth.

The level of water treatment is adequate for the time being because the number existing service connections is well below 100. This allows Council to consider an appropriate level of service based on the nature of the community, which may not necessarily involve water treatment to full standards required in a larger community system. However, it should be noted that this level of water treatment, as well as storage capability, may place some limitations on development in the long term.

For the next ten years, or even longer, it is anticipated that the existing level of service will be sufficient to allow for the likely projected level of growth. This may require some specific District Plan provisions to ensure the nature and extent of water consumption with any new development is compatible with the existing level of service, but this is not expected to be a significant constraint on the general future industrial growth in this area.

Wastewater

The area is outside the Lake Taupō catchment. The existing sites are generally not high generators of wastewater and all dispose of their wastewater on site. There is no Council operated raw wastewater network in the vicinity. Disposal on site remains a permitted activity for the identified growth areas and it is recommended that this continue for future land uses.

Stormwater

As the sites in this area do not tend to have a high building coverage it is recommended that the 2009 Taupō District Council Code of Practice for Development of Land (CoP) standard be applied to the new development areas. This will require that the 'primary' storm event of a 10-year return period must be disposed of on site (less any allowance for pre-existing runoff), and that a secondary flow path be provided for rainfall events up to the 100-year return period.

Sites lower in the catchment will need to allow for the function of the existing secondary flow paths to be maintained. These flow paths should be secured by easements in favour of Taupō District Council. This would be done site-by-site once development occurs. Flow paths will need to align with culverts under the ETA. Some culvert capacity issues under Rakaunui Road have been identified, which may become worse with future land development. Once again provision of this infrastructure is not solely due to the re-zoning of the identified areas.

Area 2 - Between Broadlands Road & State Highway 5

This broad location contains all the identified land between Broadlands Road and State Highway 5. The land is adjacent to existing industrial land and immediately east of the Taupō urban area. The exception is the Broadlands Road portion east of the ETA, which is included in this central location because this land will be serviced from Broadlands Road, not Centennial Drive.

It is most likely that this location will provide the bulk of future general industrial land, because it is closely connected with existing industrial activity, and provides for a range of future sites, and a choice of specific locations.

While there are several specific locations that are likely to be developed individually, and over different time periods, generally this wider location has the ability to be serviced to the extent that no specific staging or sequential timing is necessary to unfold the land. This is why it is important for the market to play a role in deciding when the land should be developed, and the future zoning of Industrial (unserved) provides the basis for such a process.

Water

Most of this land can be serviced from existing systems by extending infrastructure already in the particular location, to the site to be developed. The exception is a central portion around Digger McEwen Park, which may need to wait for a new water pressure zone with a new high-level reservoir and associated pumping station, because this portion of land is too high to be serviced from existing zones. However, this is a timing issue, and the remaining majority of land in this general location will be more than adequate to meet future demand for industrial land in the meantime.

Wastewater

Wastewater disposal is similar to water supply, in that various portions of this location will connect to existing wastewater systems by way of extended infrastructure to the specific site. There are no limitations on wastewater disposal other than the cost of extending services. Some of this cost is already scheduled in the LTCCP for the period 2011-2016, and will be reviewed in 2012. The remaining costs associated with wastewater disposal will be part of developing the land and will be managed by the unserved zoning provisions and assessed through the resource consent process.

Stormwater

As is the case for the majority of the Taupō urban area, disposal of stormwater will be managed on-site at the time of development, in accordance with Council's Code of Practice for land development.

Area 3 – Airport land

It is proposed to rezone the Airport, and land immediately to the north, as Airport Industrial (Unserviced). At present the Airport is zoned Rural, which does not reflect the actual nature of activity in this location. The Airport is home to a wide range of core airport activity, and many other businesses that benefit from the airport location. There are servicing limitations that will prevent new intensive activity, but on-site solutions may enable the expansion of airport related activity with a modest need for water and wastewater facilities.

Water Supply and Wastewater

The Airport requires both water and wastewater upgrades to be fully reticulated. Water is potable, but not supplied at a full level of service, and there is no existing wastewater reticulation. The estimated cost of extending full services to the Airport is not excessive, but given that the likely demand for land in the short to medium term will be around modest airport expansion rather than general industrial, it is unlikely that the identified upgrades can be done in the foreseeable future by either Council or developer.

Unlike other land required for general industrial activity, it is possible for a modest amount of new airport associated activity to establish by utilising the existing water supply, and a self contained wastewater solution. Providing future activity is limited to low water users, and appropriate level of new development could be achieved in the short to medium term, while investigating long term solutions.

Council has signalled a willingness to make a commitment in the 2012 Long Term Plan to provide wastewater facilities to the Airport land as part of meeting ongoing commitments to improving water quality. As part of the Long Term Plan the Council will need to consider what extra provision to make for additional industrial growth.

Stormwater

This area has ample gully systems for the developer to undertake a system in compliance with the CoP. The existing gullies downstream are free of development and are eventually proposed for TDC ownership as local purpose stormwater reserves.

Taupō town centre

The Structure Plan does not introduce any new water services costs over the existing growth planning scenarios. Water and Wastewater networks are in place and offer adequate capacity for projected growth in the Town Centre. Stormwater services are proposed to be provided to sites that wish to go to greater building coverage than those which exist at present, up to 100% in the block to Titiraupenga Street. These future capital works would be needed in any case, so have not been included here as not being a specific impact of the Structure Plan.

Summary

All growth areas are technically feasible to be serviced, but not all services are available at this time. There will be some significant costs involved in servicing certain areas, and this may mean that some areas will naturally be developed before others. Water supply will be the most expensive element that needs to be addressed to allow the eventual development of all areas. If lower levels of service can be accepted in certain areas the costs will reduce accordingly, as will lower-demand uses than those assumed in the modelling.

Some areas are able to proceed with development at this time; others are constrained by the provision of the network services. In these cases, either the developers wait until the network services are provided by Council in a staged manner, or provide the network services themselves if they wish to proceed ahead of the networks.

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- Taupō Large Format Retail Study (2005)
- Taupō District Plan (2007)
- 2020 Taupō-nui-a-Tia Action Plan (2006)
- Taupō District Council's Tree and Vegetation Policy (2005)
- Taupō District Council Policy for the Older Person (2004)
- Public Art Policy (2006)
- Taupō District Council Arts and Cultural Policy (1993)
- Taupō District Plan
- Code of Practice for the Development of Land (September 2009)

Glossary

Civic Heart: A Structure Plan term used to describe a civic centre that is located, designed and activated in such a way that it is seen by the community as a focal point or heart of the town centre.

Civic Centre: Grouping of municipal facilities in a limited precinct often adjacent to a central business district. (*Wikipedia - Online Encyclopaedia*)

The public buildings of a town, including recreational facilities and offices of local administration. (*Dictionary.com*)

Commercial area: A Structure Plan term referring to the land between Tongariro Street and Titiraupenga Street as well as the land between State Highway 1 and Opepe Street. The majority of this land is utilised for commercial purposes by a wide range of different businesses.

Fine grain retail: Refers to smaller retail tenancies, often located on laneways, which tend to be a mix of retail and entertainment/eating opportunities. These establishments often have a boutique character offering specialized products and services.

Landing Reserve: Refers to the land managed by the Department of Internal Affairs on the eastern side of the Taupō Boat Harbour. (See *the map on page 82*)

Liveable: Liveable communities are places built around historic centres that reposition themselves as valuable and desirable places. They not only attract residents and businesses from surrounding regions but from areas far and away. The community leaders have collaborated to build a strong town centre and develop a sustainable economic base from which residents can grow a business and raise a family.

While liveable communities may experience growth, they do not lose touch with the traditional gathering place of value in their historic centres. These areas define the community's liveability by bringing citizens and visitors that close feeling of friendliness that is unmatched in any larger counterpart.

Characteristics of Liveable Communities include:

- Full community participation in the decision-making process
- Well planned and designed communities where housing, schools and parks are within easy walking distance of user-friendly transit and link residents to job opportunities and social services
- Transit, pedestrian and bicycle access that is compatible with land use, zoning and urban design to reduce dependence on the automobile
- Mixed-use communities that complement residential areas with commercial, recreational, educational, health and other social services
- Transit services and facilities which provide safety, security and accessibility for all passengers,
- Sound environmental practices including careful parking and traffic management techniques to reduce auto trips, conserve space, encourage green areas, avoid gridlock and improve air quality.

(Developed from the Federal Transit Administration's *Livable Communities Initiative and Partners for Livable Communities*)

Long Term Council Community Plan (LTCCP): The LTCCP is Council's main planning document. It details the activities Council intends to carry out over the next ten years, how much these activities will cost, and how they will be funded. The document also includes the Annual Plan for the first year of the ten year period.

LTCCPs, which are required by law, are prepared every three years in consultation with the public. They help identify how Council contributes to the outcomes the community wants to achieve. They also provide an opportunity for democratic, local decision-making. Impending changes to legislation mean that in the future the LTCCP is likely to be referred to as the Long Term Plan. (www.taupo.govt.nz)

Plaza: A public square, market place, or similar open space in a built up area (*Concise Oxford English Dictionary*)

Pedestrian Precinct: Refers to part of the Town Centre Environment where the District Plan provisions place a greater emphasis on pedestrian amenity (*refer to the plan on page 57 of this Structure Plan*).

Tongariro Domain: The Tongariro Domain is approximately 17 hectares and is situated between Lake Taupō, the Waikato River and the commercial area of the town centre (see adjacent map). The Domain is predominantly Crown land vested in Taupō District Council as reserve under the Reserves Act 1977. Taupō District Council has the authority to manage and develop the reserve in accordance with its primary purpose, which in this case is mostly recreation, whilst the Department of Conservation ensures compliance with the Act on behalf of the Crown.

The adjacent Landing Reserve, the land occupied by the Police Station and Courthouse and the Historic Places Trust Tapuaecharuru Redoubt are not legally part of Tongariro Domain and are not administered by Taupō District Council.

(Taken from the *Tongariro Domain Reserve Management Plan 2005*)

Taupō Boat Harbour: The area around the mouth of the Waikato River where boats are moored and there is a mix of activities, including boat maintenance and storage facilities on the western shore, and the Harbour masters office, offices for commercial recreational activities and a café on the eastern shore.

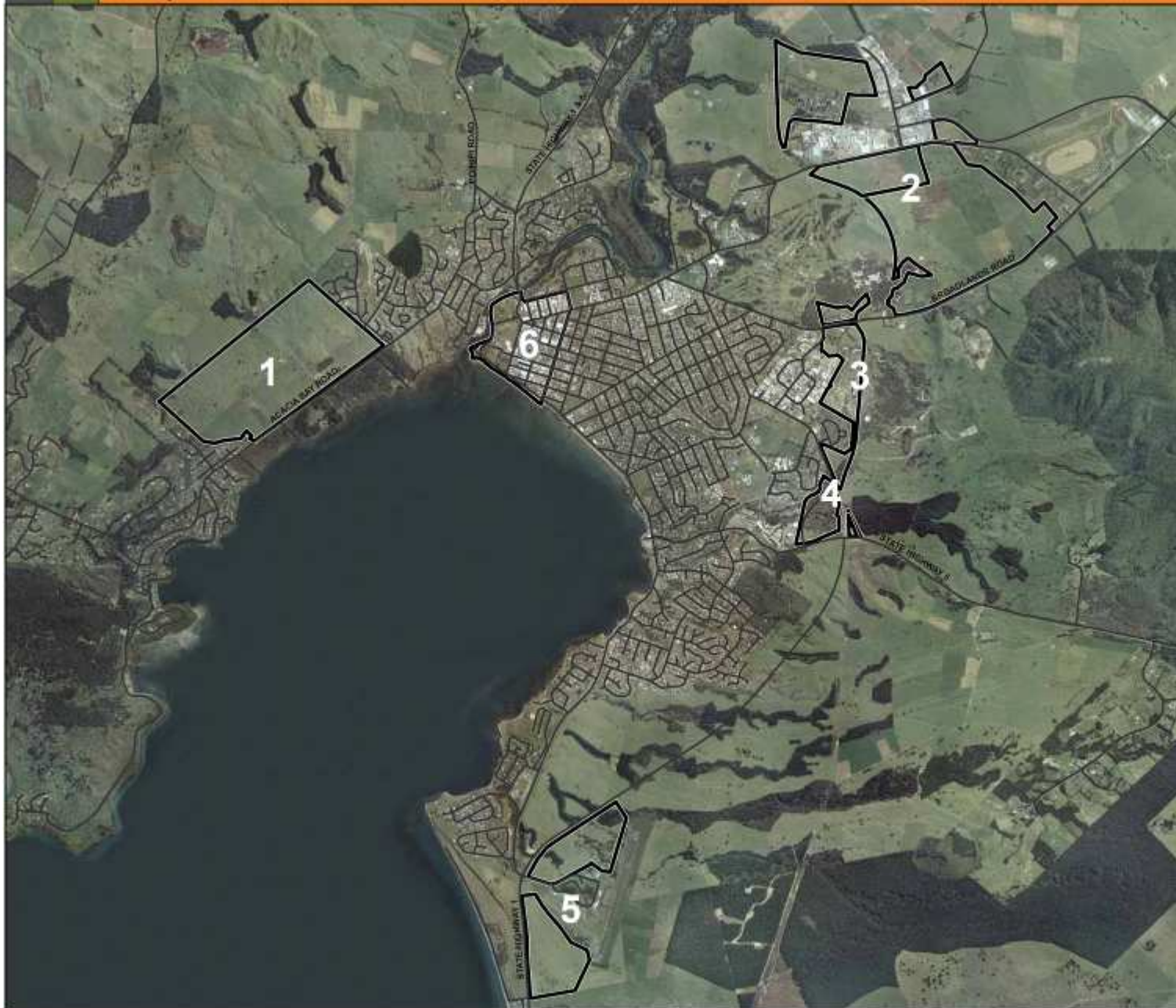
Town centre: A Structure Plan term that relates to all of the land to the west of Titiraupenga Street and Opepe St as far as the Waikato River (including the Tongariro Domain).

Town Centre Environment: Refers to a specific zoning in the Taupō District Plan (*refer to the plan on page 57 of this Structure Plan*).



Appendix

Taupo Urban Commercial and Industrial Structure Plan



Structure Plan Area

LEGEND

- Road Centreline
- ▭ Industrial / Commercial Structure Plan Area

Numbers 1 to 6 on this map correspond to the physical constraint maps on the following pages

750 375 0 375 750 1,500 Meters

Scale (A3) : 1:40,000 NORTH 2000

Map Author: Tracey May
 Map Date: 26 August 2010
 Map Location: Policy Planning/Structure Plans/
 Commercial/Industrial/Physical Structure Plan Area

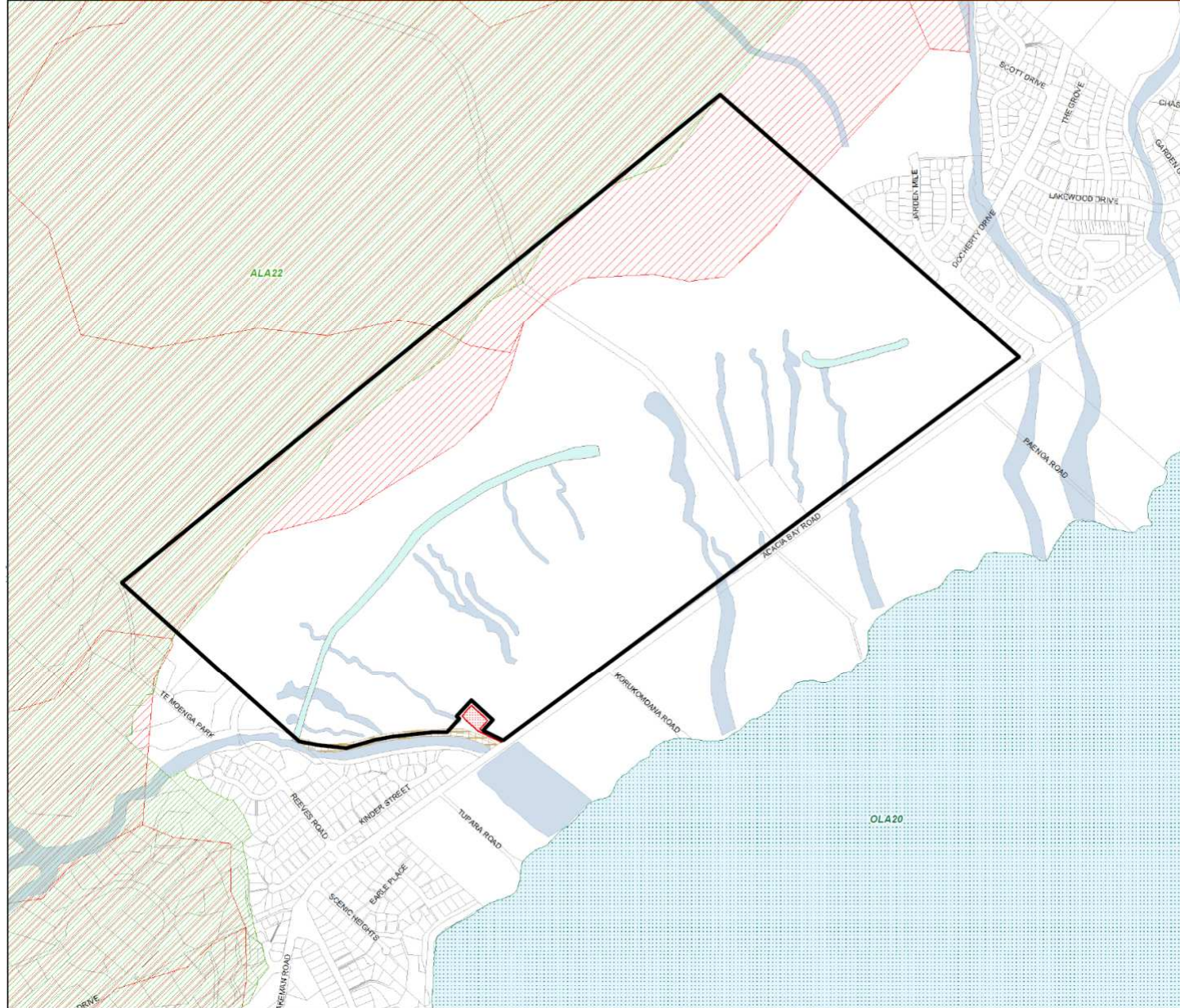


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Taupo Urban Commercial and Industrial Structure Plan



Physical Constraints Area 1

- LEGEND**
- Industrial / Commercial Structure Plan Area
 - Hot Ground Hazard Area (District Plan)
 - Electricity Transmission Lines with 20m buffer
 - Fault Line (District Plan)
 - Known Contaminated Site (District Plan)
 - Ecological Constraints
 - Erosion
 - Stormwater Secondary Flow Paths
 - Lake Taupo Flood Study Proposed Inundation Hazard Zone
 - Slope >21 degrees
 - Subsidence Area
 - Landscape Amenity Management Areas (LMA)
 - Outstanding Landscape Management Areas (OLMA)
 - Significant Natural Values (SNA)
- Landscape Sensitivity**
- Gully
 - Moderate
 - High

This map was compiled from information contained in the technical reports and information which the Council holds. It was originally produced in January 2008 to inform the development of the draft Structure Plan that was produced for community consultation.



Map Author: Tracey May
 Map Date: 20 September 2010
 Map Location: v:\Policy\Planning\StructurePlans\CommercialandIndustrial\maps\constraints

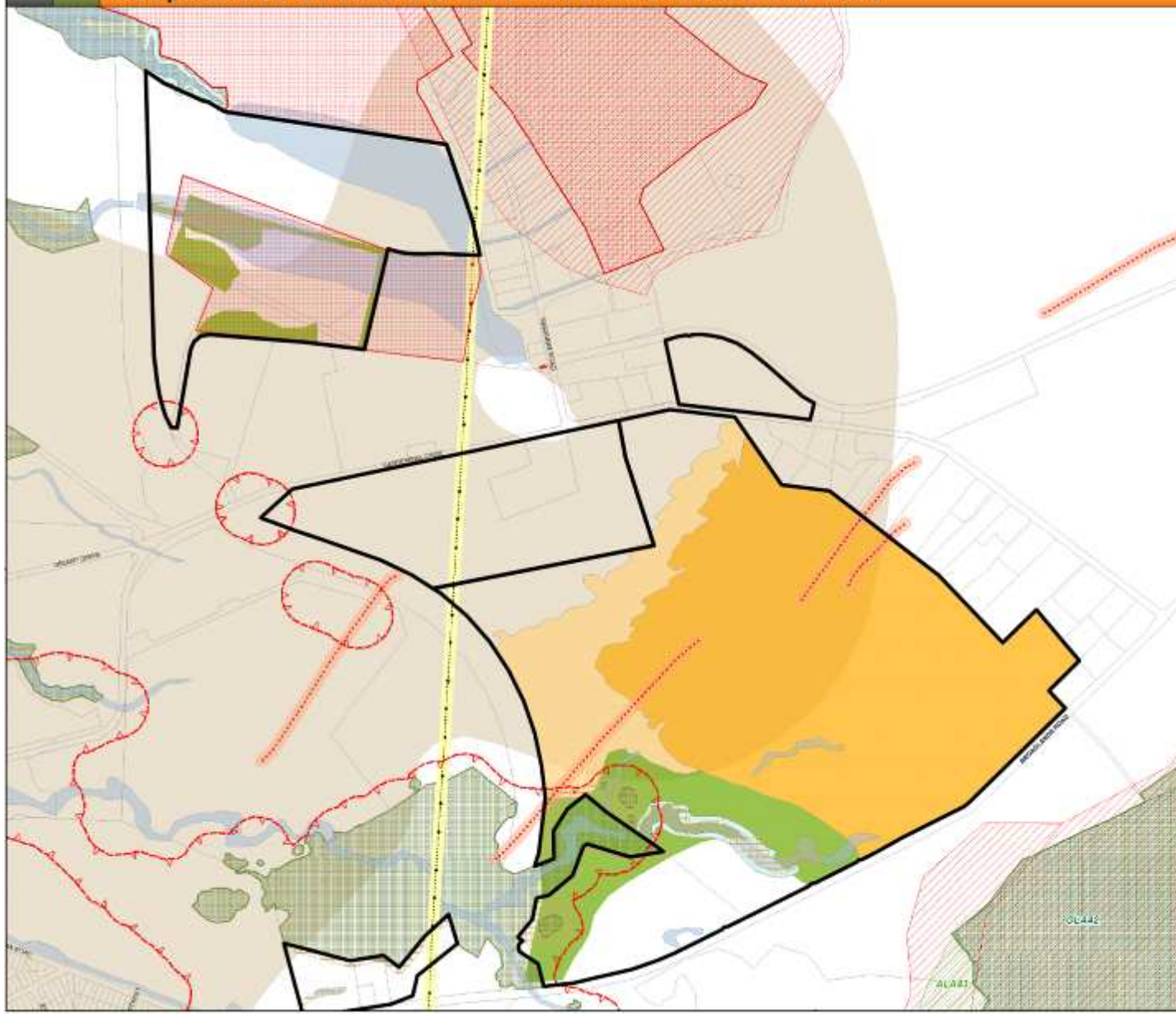
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Taupo Urban Commercial and Industrial Structure Plan

Physical Constraints
Area 2



- LEGEND**
- Industrial / Commercial Structure Plan Area
 - Hot Ground Hazard Area (District Plan)
 - Electricity Transmission Lines with 25m buffer
 - Fault Line (District Plan)
 - Known Contaminated Site (District Plan)
 - Ecological Constraints
 - Erosion
 - Stormwater Secondary Flow Paths
 - Lake Taupo Flood Study Proposed Inundation Hazard Zone
 - Slope >21 degrees
 - Subsidence Area
 - Landscape Amenity Management Areas (LMA)
 - Outstanding Landscape Management Areas (OLMA)
 - Significant Natural Values (SNV)
- Landscape Sensitivity**
- Gully
 - Moderate
 - High

This map was compiled from information contained in the technical reports and information which the Council holds. It was originally produced in January 2008 to inform the development of the draft Structure Plan that was produced for community consultation.

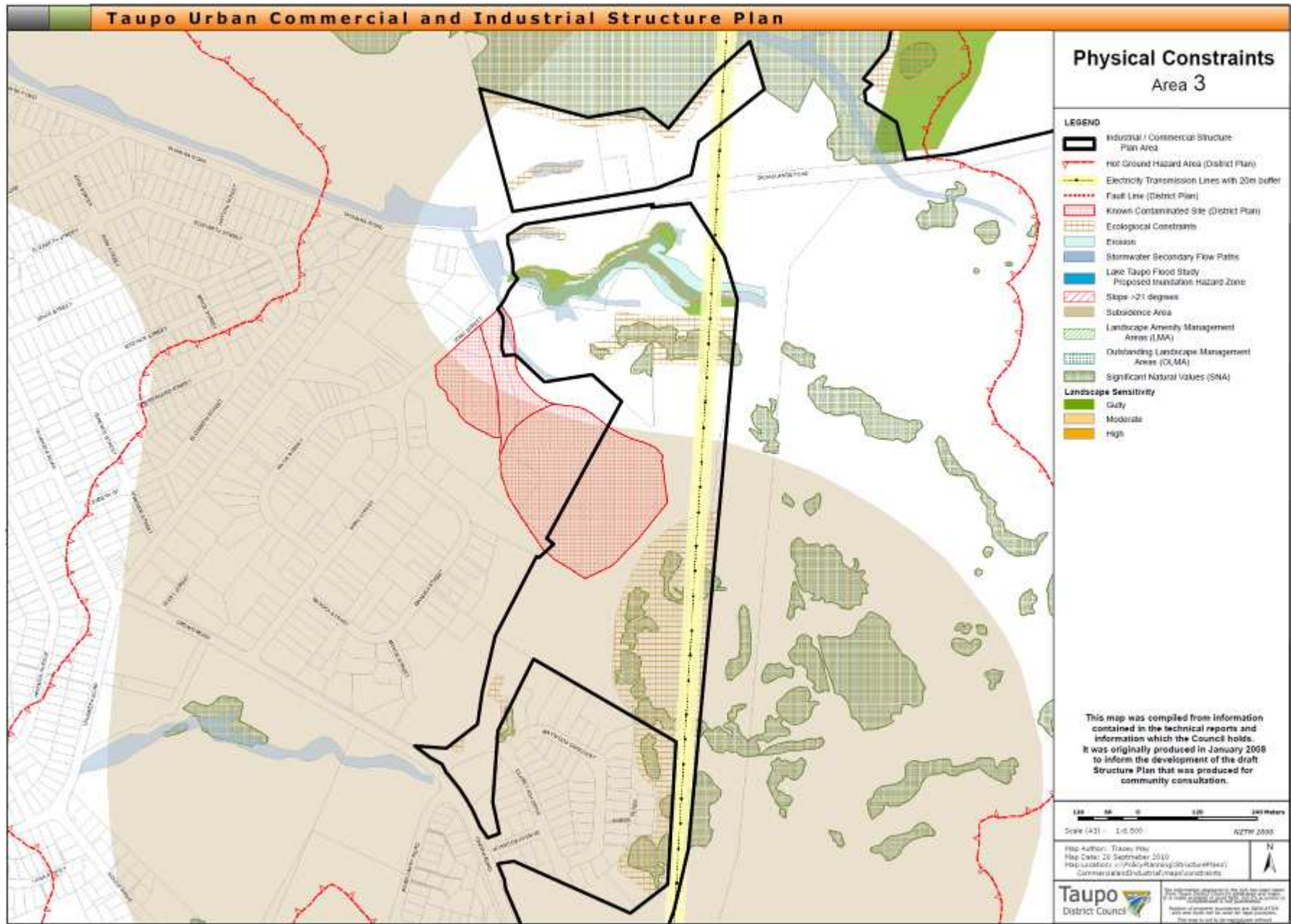
Scale (A2) = 1:12,000 NZTM 2000

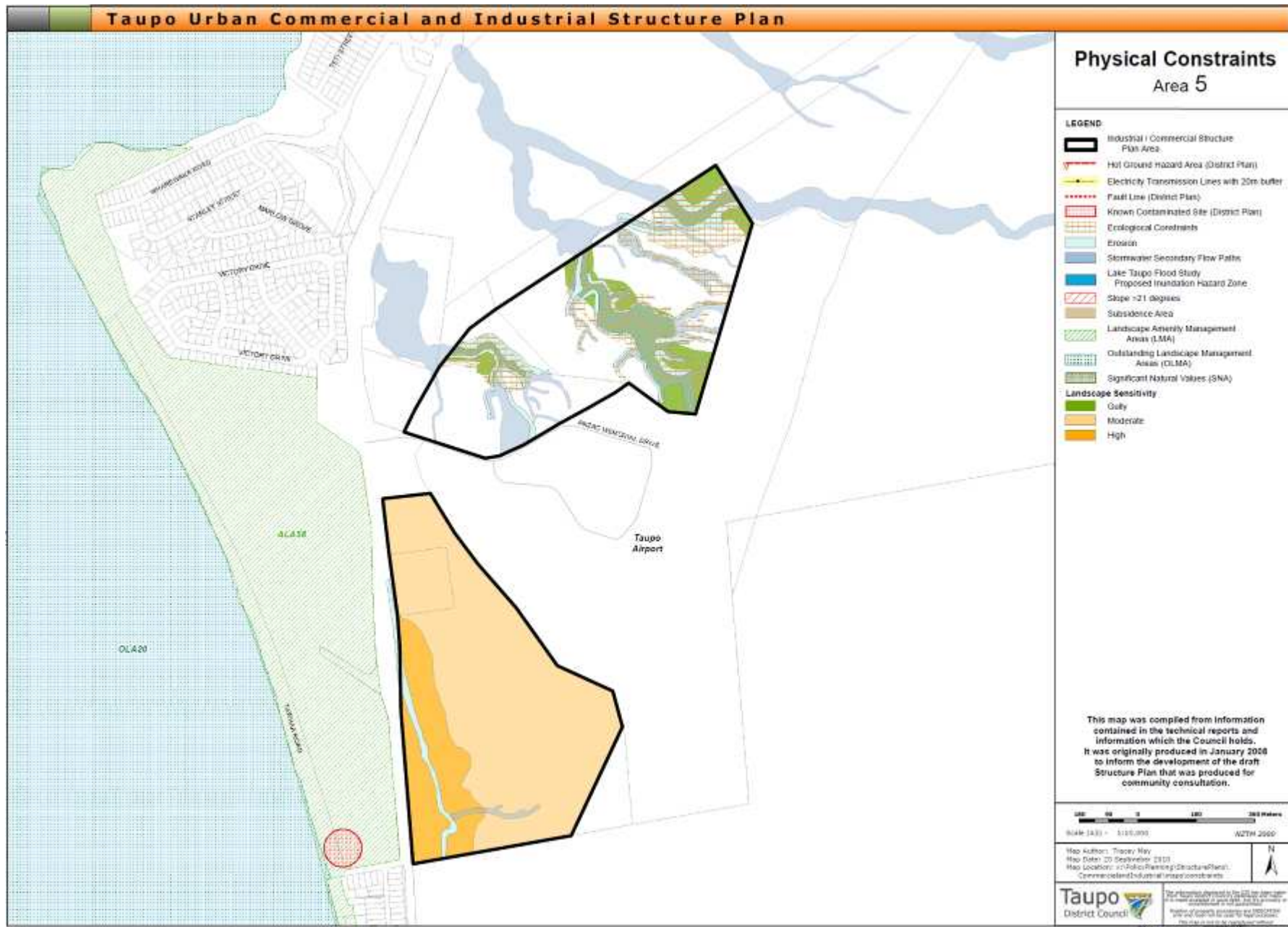
Map Author: Robyn Hix
Map Date: 20 September 2010
Map Location: Taupo Review (Structure Plan)
Commercial/Industrial/Class Constraints

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Taupo Urban Commercial and Industrial Structure Plan



Physical Constraints Area 6

- LEGEND**
- Industrial / Commercial Structure Plan Area
 - Hot Ground Hazard Area (District Plan)
 - Electricity Transmission Lines with 20m buffer
 - Fault Line (District Plan)
 - Fault Line 20m setback
 - Known Contaminated Site (District Plan)
 - Ecological Constraints
 - Landscape Amenity Management Areas (LMA)
 - Outstanding Landscape Management Areas (OLMA)
 - Erosion
 - Stormwater Secondary Flow Paths
 - Lake Taupo Flood Study Proposed Inundation Hazard Zone
 - Slope >21 degrees
 - Significant Natural Values (SNA)
 - Subsidence Area
- Landscape Sensitivity**
- Gully
 - High
 - Moderate

This map was compiled from information contained in the technical reports and information which the Council holds. It was originally produced in January 2008 to inform the development of the draft Structure Plan that was produced for community consultation.

75 0 75 150 Meters
 Scale (A3) - 1:5,000
 NZTM 2000

Map Author: Traces Hay
 Map Date: 27 January 2008
 Map Location: C:\Planning\GIS\StructurePlan\GIS\CommercialandIndustrial\map\physicalconstraints

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