

# PROPERTY **E**CONOMICS



## **TAUPŌ RURAL LIFESTYLE ECONOMIC ASSESSMENT**

**Client:** Taupō District Council

**Project No:** 51801

**Date:** July 2019



## SCHEDULE

Code	Date	Information / Comments	Project Leader
51801.5	July 2019	Report	Tim Heath / Phil Osborne

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## 1. INTRODUCTION

Property Economics has been engaged by Taupō District Council (TDC) to assess the current and future potential demand and capacity for residential lifestyle 'blocks' within the District. This provides for an assessment of Taupō District's rural lifestyle market and the demand for such product over the life of the new District Plan in order to inform Council decision making around the appropriate extent of the rural lifestyle zone in the District currently, and identify appropriate rural lifestyle areas in the future based on demand and economic considerations.

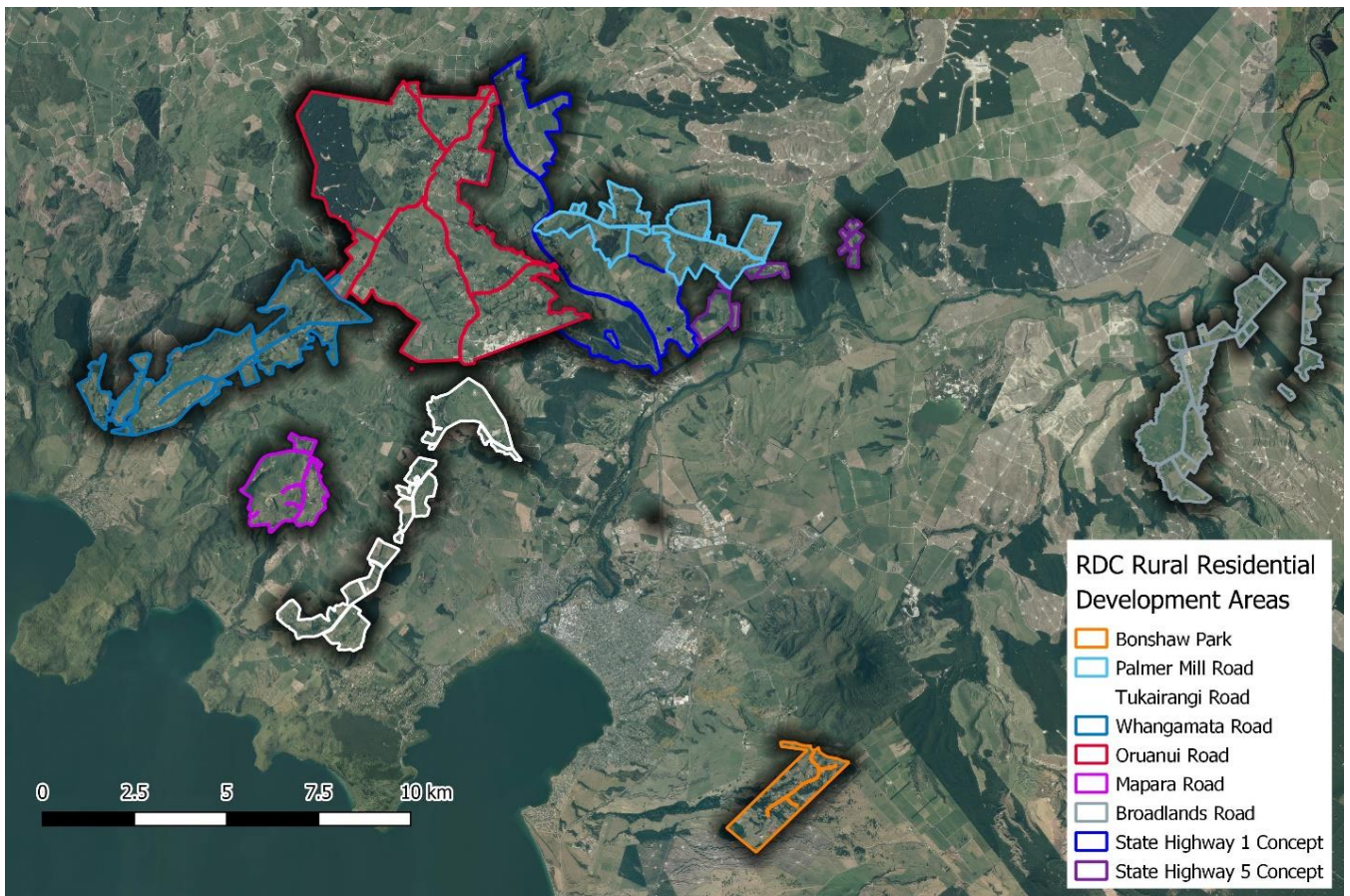
The scope of works below is designed to address the relevant areas of economic analysis required to assist TDC's understanding of potential RMA effects from an economic perspective and provide the relevant economic justification for any policy or zone response in the new District Plan.

While the NPS directs Councils to consider demand in providing for future residential capacity, it is important, from an RMA perspective in terms of efficiency and effectiveness, that the Council consider the potential economic costs associated with the level of this provision. This report seeks to identify the current level of capacity and latent demand for rural lifestyle properties, providing a baseline not only for the stock of such residential product but its current level of impact on the District economic efficiency.

Additionally, an assessment of the level of this provision under the current District Plan as well as an assessment of the likely economic costs and benefits attributable to different policy options and scenarios will be undertaken.

This assessment is focused on the areas of Bonshaw Park, Palmer Mill Road, Whangamata Road, Mapara Road, Tukairangi Road and Oruanui Road as outlined in Figure 1 below. It is important to note that these areas do not reflect areas of new lifestyle sites but are comprised of the majority of lifestyle capacity within the District and are provided for under the Plan.

FIGURE 1: GEOSPATIAL EXTENT OF 'FOCUS AREAS'



Source: Taupō District Council



## 2. GLOSSARY

This glossary explains some of the technical and specific terms used in this assessment.

- **Rural Lifestyle Product** – refers to residential housing in the Taupō District rural environment, situated on sites less than 10ha in area.
- **District Demand** – refers to demand for rural lifestyle product in the Taupō District arising as a result of population growth and household requirements.
- **Latent Demand** – is demand for rural lifestyle product additional to District Demand. Latent demand arises as a result of a propensity for the Taupō residential market to lean towards rural lifestyle product to satisfy residential requirements. In the current market the rural environment is not necessarily able to satisfy this demand, however the demand still exists.
- **Regional Demand** – refers to additional demand for rural lifestyle product from within the Waikato Region as a result of a more competitive residential product at a more affordable price.
- **Sub-National Demand** – refers to additional demand for rural lifestyle product at a national level as a result of a more competitive residential product at a more affordable price.
- **Capture Rate** – the current proportion of the Taupō District's growth based residential demand (District Demand) that is captured by rural lifestyle product.
- **Economic Cost** – in this assessment, economic costs refer to the adverse economic impacts incurred by a third party as a result of a private decision.
- **Urban Sprawl** – refers to the migration of population from populated towns and cities to low density residential development over rural land.
- **Competitive Advantage** – in this assessment, competitive advantage refers to the more favourable or improved position rural lifestyle product in Taupō District gains relative to competing residential product.
- **Marginal Cost** – refers to the cost of producing one additional unit or service.

### 3. EXECUTIVE SUMMARY

The following economic analysis provides an assessment of the current and future rural lifestyle demand and capacity, as well as the economic impacts associated with rural lifestyle development in the Taupo District. Capacity, demand and economic impacts of rural lifestyle development is assessed under three scenarios - Current Provisions Scenario, Scenario A and Scenario B. The scope of the latter two scenarios is briefly outlined below:

- Scenario A: Allows for an additional dwelling on lots in the rural environment below 10ha and the subdivision of rural lots to a minimum of 10ha.
- Scenario B: Allows for the subdivision of Rural lots to a minimum of 2ha.

The analysis is focused on six primary areas which have been identified by TDC, namely Bonshaw Park, Palmer Mill Road, Whangamata Road, Mapara Road, Tukairangi Road and Oruanui Road.

In the aforementioned areas there are currently just over 810 rural lifestyle sites, accounting for around 5.5% of the district's total households count. In terms of size and vacancy the distribution of these sites across the identified concept areas is relatively uniform. This would indicate a relatively even demand profile between the areas in terms of proportionate demand and composition.

Household growth in the Taupo District is forecast to be in the order of 1,500 households net over the next 15 years. In consideration of this growth, as well as the relative price differential and proportional composition of rural lifestyle product in the District, demand for an additional 200 rural lifestyle households is forecast by 2033 under the Current Provisions Scenario.

Under Scenarios A and B, the Taupo District would develop a competitive advantage over alternative markets in terms of residential product due to improved residential choice at a more competitive price. This competitive advantage would enable the Taupo District to capture a greater proportion of regional and national demand.

Table 1 following provides a summary of capacity and demand to 2033 under Scenarios A and B. Under Scenario A, demand of 466 rural lifestyle households is forecast to 2033, around 260 more than under the Current Provisions Scenario. Under Scenario B, demand of just under 690 rural lifestyle households is forecast over the same period, around 490 more than under the Current Provisions Scenario.

**TABLE 1: TAUPO DISTRICT RURAL LIFESTYLE CAPACITY AND DEMAND**

	Scenario A	Scenario B
Potential Additional Capacity	828	1,596
Total Demand	466	687

*Source: Property Economics, Taupo District Council*



There are several economic costs and benefits that are associated with the development of additional rural lifestyle product in the Taupo District.

The primary economic benefit is increased levels of economic activity associated with additional growth resulting from a more competitive residential product. Under Scenario A, additional growth resulting from this competitive advantage amounts to around 185 jobs and \$17m of value added per annum. Under Scenario B, the additional growth is projected to amount to around 355 jobs and \$33m of value added per annum.

Economic costs associated with additional rural lifestyle development include lost rural productivity, increased infrastructure costs, increased travel times and congestion and adverse impacts on the Taupo District's tourism industry.

The quantification of lost productivity under the Current Provisions scenario amounts to around \$3.1m p.a. This estimate is only likely to observe a marginal increase under Scenario A. Under Scenario B we estimate the direct productivity loss to be around \$4.1m p.a. It should be noted that these estimates evaluate direct productivity loss only and exclude any indirect flow-on effects. These indirect effects could potential increase the extent of these costs by over 100%.

Potential demand for rural lifestyle product can be met by the identified concept areas in both Scenario A and B. However, this capability should be judiciously assessed against existing infrastructure capacity and the loss of rural productivity. In particular, it is necessary to undertake a more significant assessment of infrastructure capacity in each of the identified areas. This will assist in providing a better understanding of which areas should be prioritised in terms of mitigating the adverse economic impacts associated with rural lifestyle development.

Mapara Road and Oruanui Road should be made a priority in terms of these infrastructure assessments and meeting future rural lifestyle demand. Mapara Road should be made the priority under Scenario B, while Oruanui Road should be made the priority under Scenario A. At a high level, these areas have been identified as being likely to be the most suitable in terms of mitigating adverse economic impacts under each respective Scenario.

Given the potential for meaningful economic costs to the District of such development, TDC should consider these outcomes in respect of rural lifestyle growth being a choice given the District already has more than sufficient capacity to accommodate residential growth over the next 30 years. As such, Council should focus on providing sufficient capacity to accommodate rural lifestyle demand and not develop a policy framework that may fuel rural lifestyle growth and therefore additional rural lifestyle capacity requirements.

## 4. EXISTING TAUPŌ RURAL LIFESTYLE ENVIRONMENT

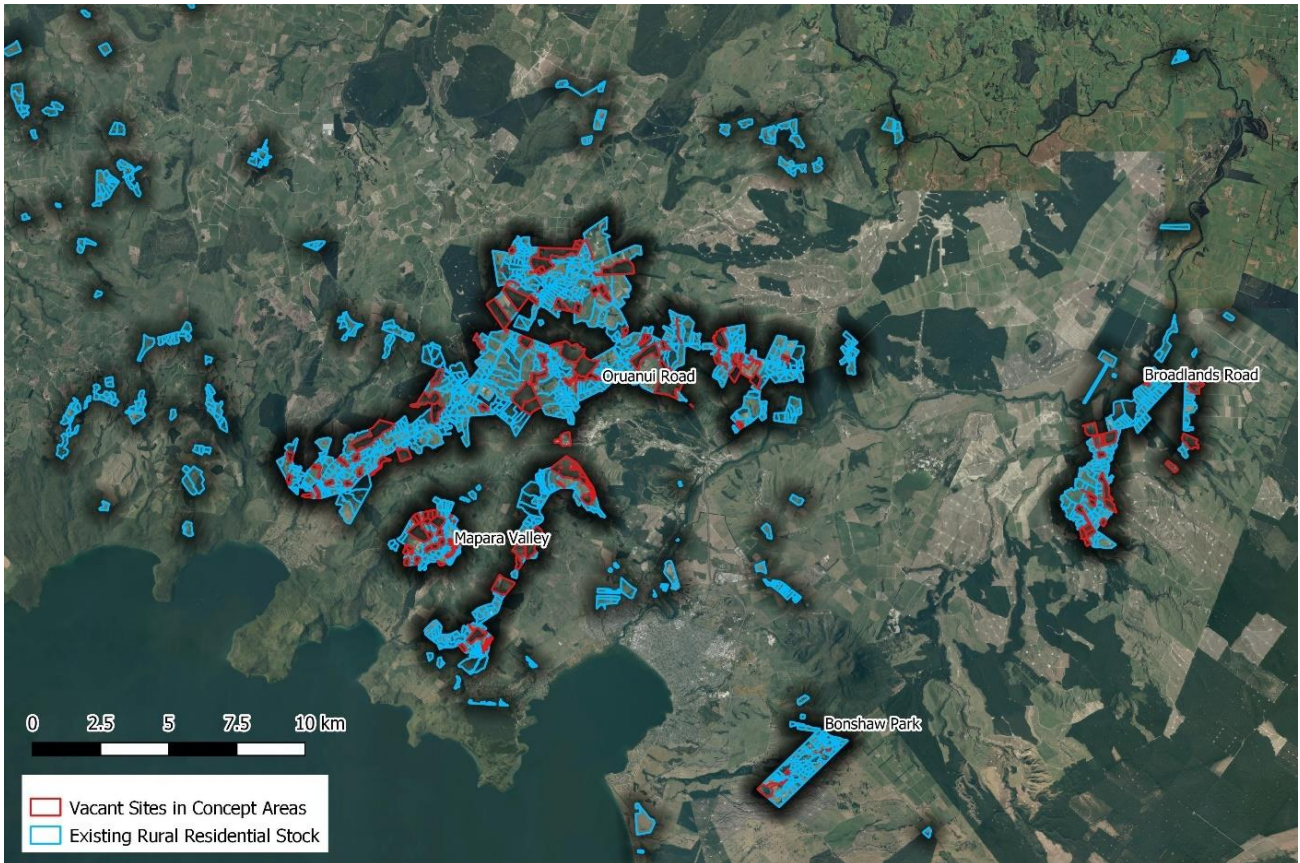
Table 2 outlines the current level of rural lifestyle sites in the Taupō District as at April 2019. This highlights the District currently accommodates 813 rural lifestyle sites within the identified areas. This level of residential sites currently makes up 5.5% of the total number of the District's households. Figure 2 following sketches the geo-spatial distribution of these sites throughout the district, highlighting the clustering of smaller sites around areas of amenity and accessibility. Additionally, Table 2 indicates that just over 86% of the capacity within these areas has been occupied (defined as lifestyle sites with an 'improvement value' greater than \$20,000). This occupancy rate is relatively consistent between areas with a rate between 75% (Mapara Road) and 95% (Bonshaw Park).

TABLE 2: EXISTING TAUPŌ DISTRICT RURAL LIFESTYLE CAPACITY

	Existing	
	Sites	Occupied
<b>Bonshaw Park</b>	69	68
<b>Tukairangi Road</b>	129	124
<b>Mapara Road</b>	100	97
<b>Oruanui Road</b>	240	223
<b>Palmer Mill Road</b>	111	107
<b>Whangamata Road</b>	164	158
<b>Broadlands Road</b>	142	134
<b>SH5 Concept</b>	32	32
<b>SH1 Concept</b>	52	45
<b>TD 2050 Areas</b>	60	51
<b>Other</b>	3,254	915
<b>Group 1 Subtotal</b>	<b>813</b>	<b>777</b>
<b>Group 2 Subtotal</b>	<b>1,039</b>	<b>988</b>
<b>Total</b>	<b>4,353</b>	<b>1,954</b>

Source Property Economics, TDC

FIGURE 2: DISTRIBUTION OF RESIDENTIAL LIFESTYLE BLOCKS



Source: TDC, Property Economics

Table 3 summaries the composition of these sites by size. This shows a preponderance of smaller sites with over 70% smaller than 5ha, and nearly half falling within the 2 to 5ha range. Once again, the distribution of lifestyle sites by size is relatively uniform between the identified areas. This would indicate a relatively even demand profile between the areas in terms of proportionate demand and composition.

TABLE 3: DISTRIBUTION OF LIFESTYLE SITES BY LAND AREA

	0.1ha-1ha	1ha - 2ha	2ha - 5ha	5ha - 7ha	7ha - 10ha	10ha - 20ha	20ha - 100ha	Total
<b>Bonshaw Park</b>	1	3	43	6	7	9	0	<b>69</b>
<b>Tukairangi Road</b>	32	25	47	9	3	7	6	<b>129</b>
<b>Mapara Road</b>	20	16	51	8	1	2	2	<b>100</b>
<b>Oruanui Road</b>	21	17	116	31	11	14	30	<b>240</b>
<b>Palmer Mill Road</b>	13	7	50	17	10	8	6	<b>111</b>
<b>Whangamata Road</b>	7	7	92	29	9	10	10	<b>164</b>
<b>Broadlands Road</b>	18	6	77	19	6	13	3	<b>142</b>
<b>SH5 Concept</b>	1	4	17	6	1	2	1	<b>32</b>
<b>SH1 Concept</b>	3	1	16	12	5	0	15	<b>52</b>
<b>TD 2050 Areas</b>	9	9	16	4	4	7	11	<b>60</b>
<b>Other</b>	1,387	240	474	149	127	246	631	<b>3,254</b>
<b>Group 1 Subtotal</b>	94	75	399	100	41	50	54	<b>813</b>
<b>Group 2 Subtotal</b>	<b>116</b>	<b>86</b>	<b>509</b>	<b>137</b>	<b>53</b>	<b>65</b>	<b>73</b>	<b>1,039</b>
<b>Total</b>	1,512	335	999	290	184	318	715	<b>4,353</b>

Source TDC, Property Economics

In 2007 Taupō District Council introduced a change to the District Plan (Plan Change 19) that restricted the subdivision of rural lifestyle. Table 4 following outlines the rural lifestyle building consents issues from 2009 to 2019 and shows the relative changes to the level of stock in each area. Over this 12-year timeframe 100 additional building consents have been applied and actioned constituting an increase of over 14% to the existing built stock within the identified areas. This equates to just under 10 per annum on average over the period.

The most significant growth area within the identified areas is Mapara Road with over 25% of all actioned consents. This represents significant growth in this area given that it only accommodates 10% of the existing stock, nearly 40% of which has appeared in the last 10 years.



TABLE 4: TAUPŌ DISTRICT BUILDING CONSENTS (RURAL LIFESTYLE) 2007 TO PRESENT

	Consents Issued (2009-2019)	Actioned Consents (2009-2019)	Existing Stock	Actioned Consents to Existing Stock Ratio
<b>Bonshaw Park</b>	4	3	66	4.5%
<b>Tukairangi Road</b>	23	19	107	17.8%
<b>Mapara Road</b>	33	28	74	37.8%
<b>Oruanui Road</b>	15	14	215	6.5%
<b>Palmer Mill Road</b>	15	15	98	15.3%
<b>Whangamata Road</b>	22	21	146	14.4%
<b>Broadlands Road</b>	16	12	122	9.8%
<b>SH5 Concept</b>	1	1	31	3.2%
<b>SH1 Concept</b>	1	1	43	2.3%
<b>TD 2050 Areas</b>	4	4	29	13.8%
<b>Other</b>	70	54	564	9.6%
<b>Group 1 Subtotal</b>	112	100	706	14.2%
<b>Group 2 Subtotal</b>	<b>130</b>	<b>114</b>	<b>902</b>	<b>12.6%</b>
<b>Total</b>	204	172	1,495	11.5%

Source: TDC, Property Economics

A key indicator of both the District wide demand for this residential product and the potential pressure of competition from outside the District is the relative price of rural lifestyle sites within the District. While there are often significant differences between rural lifestyle sites that can affect temporal trend data it is still relevant to provide context. The relative price changes for rural lifestyle in comparison to other residential product is an indicator utilised in the following section to estimate latent demand. This assumes that there is potential for additional demand for a product that is unmet due to restraining factors that influence supply and price.

The average value for rural lifestyle sales currently exceeds \$500,000 and sits approximately 10 – 15% higher than the average District sales. While land value increases have played a significant role in the growth in this submarket, more recent levels of growth have continued to reflect a latent demand above that in the market in general.

#### 4.1. FUTURE AND CURRENT DEMAND AND CAPACITY

As indicated in the tables above (with proportionately high consent growth) there has been substantial growth in the development of rural lifestyle sites in Taupō over the past 10 years. While these consents would suggest that rural lifestyle sites are increasing as a proportion of total residential product in Taupō, for the purposes of this report, this proportion has been held constant in identifying future demand and capacity requirements as these trends often follow cycles that are longer than 10 years.

Growth in the Taupō market is expected to be relatively subdued with Table 5 showing growth in households over the next 15 years of nearly 1,500 or 10%. Considering these growth levels and the expected composition relating to rural lifestyle Table 5 provides the expected number of lifestyle sites required to 2033.

TABLE 5: ESTIMATED POPULATION AND HOUSEHOLD PROJECTIONS (2038)

	2018	2023	2028	2033	2038
<b>Population</b>	37,200	38,090	38,670	39,010	39,080
<b>Households</b>	15,200	15,831	16,306	16,692	16,958
<b>Household Size</b>	2.45	2.41	2.37	2.34	2.30

Source: Property Economics, Statistics NZ

Table 6 shows expected demand, based on the current planning provisions and level of relative competition of an additional 142 sites in the next 15 years. Additionally, Property Economics have assessed the relative change in the price of differing residential product to estimate latent demand of some 60 additional sites. In total the domestic market is likely to accommodate demand for an additional 200 rural lifestyle sites by 2033.

TABLE 6: ESTIMATED DISTRICT LIFESTYLE DEMAND (2033)

	Existing		
	2023	2028	2033
<b>Latent Demand</b>	62	62	62
<b>District Demand</b>	25	101	142
<b>Regional Demand</b>	0	0	0
<b>Sub-National Demand</b>	0	0	0
<b>Total Demand</b>	<b>87</b>	<b>163</b>	<b>204</b>

Source: Property Economics

Tables 7 and 8 outline the potential 'split' for lifestyle site demand by site size. Table 7 illustrates the demand based on the current proportions exhibited in the market, for both growth expectations and existing latent demand. Table 8 identifies the potential changes through time based on more recent demand composition accepted by the market. This trend illustrates a more prominent level of demand for sites under 5ha. Table 8 is based on a wider regional composition in order to illustrate the potential demand for lifestyle sites with a wider range of options (in terms of location and size).

**Table 7: ESTIMATED DISTRICT LIFESTYLE DEMAND BY CURRENT COMPOSITION (2033)**

	Existing			
	0.5 - 1ha	1 - 2ha	2 - 5ha	5 - 10ha
<b>Growth Based Demand</b>	21	16	68	37
<b>Latent Demand</b>	9	7	30	16
<b>Total</b>	31	22	98	53

**Table 8: ESTIMATED DISTRICT LIFESTYLE DEMAND BY EXPECTED COMPOSITION (2033)**

	Existing			
	0.5 - 1ha	1 - 2ha	2 - 5ha	5 - 10ha
<b>Growth Based Demand</b>	43	37	43	20
<b>Latent Demand</b>	9	7	30	16
<b>Total</b>	52	44	72	36

As outlined above these estimated demand figures are predicated on the current rural lifestyle provisions in Taupō District. Changes to rural lifestyle provisions can impact upon the competitiveness of this product in the wider Regional and Subnational markets attracting (or restricting) additional participants in the market. Essentially, increasing capacity within the market has the potential to reduce prices which in turn increases the quantity of this product demanded from outside (as well as marginally inside) the District as the relative substitutability of the product with other areas and residential products improves.

A key cohort of the expected growth within the lifestyle market are retirees. This demographic is a growing sector of the market with greater degrees of capital and property wealth, this sector typically require smaller lifestyle sites with lower maintenance requirements. While this is

currently a growing sector of demand for this residential product type, as with all cycles, it is expected that the increasing requirements for the aging population will ultimately move this demand back to the more accessible areas of urban residential product. Thus beyond 2030 it is expected that this sector of demand will not experience the same levels of growth.

While the potential plan change scenarios have not been introduced at this stage, it remains pertinent to outline the potential changes to Demand that could result from the alterations in provisions.

Two scenarios have been assessed including:

**Scenario A:** Providing for a second dwelling on lots smaller than 10ha in: Bonshaw Park, Palmer Mill Road, Whangamata Road, Mapara Road, Tukairangi Road and Oruanui Road.

**Scenario B:** Providing for the subdivision of rural lifestyle lots down to 2ha in: Bonshaw Park, Palmer Mill Road, Whangamata Road, Mapara Road, Tukairangi Road and Oruanui Road.

In terms of market response there is potential for these alterations to result in competitive changes that will increase the relative demand from the wider market. As the potential supply increases, in appropriate areas, so too the relative price is likely to change commensurately increasing the overall demand. Additionally, it is important to note that these scenarios are not mutually exclusive and could be utilised to varying degrees in explicit areas. The distinction between these areas would be fundamentally altered due to productivity rates and the degree to which the productive landscape has already been fragmented. These specific differences would require some additional research specific to potential production in identified areas.

Table 9 following summarises these potential changes as a proportion of the wider market and more specifically the proportion of growth in the wider market (both regionally and sub nationally) that is likely to have a preference for this product.

While there are inevitably some marginal changes to the competitive level of this product, in relation to other residential products, within the local market these are likely to be materially slight and therefore, for the purposes of remaining conservative, no changes to the current proportional 'capture rate' of residential demand has been applied.

This table illustrates that additional demand under Scenario A could be approximately 260 additional rural lifestyle sites over the next 15 years with the more permissive environment attracting an additional 0.4% of the regional market growth and 0.2% of the subnational market growth.



Under the increased flexibility of Scenario B this demand potential rises to an additional 246 regionally (0.8%) and 237 subnational (0.3%). In total Scenario B has the potential to generate demand for an additional 480 rural lifestyle sites by 2033. This additional demand and the corresponding uptake have the potential to generate both economic costs and benefits for the District. While the 'additional' regional demand is likely to primarily lead by retirees, there is an increasing proportion of families seeking lifestyle blocks and additionally requiring access to higher amenity (retail, employment etc). It is expected that beyond 2030 this section of the community will become an increasing component of demand as retiree demand diminishes.

**TABLE 9: ESTIMATED TOTAL DEMAND UNDER SCENARIOS A AND B (2033)**

	Existing			Scenario A			Scenario B		
	2023	2028	2033	2023	2028	2033	2023	2028	2033
<b>Latent Demand</b>	62	62	62	62	62	62	62	62	62
<b>District Demand</b>	25	101	142	25	101	142	25	101	142
<b>Regional Demand</b>	0	0	0	34	89	134	59	165	246
<b>Sub-National Demand</b>	0	0	0	39	100	128	66	186	237
<b>Total Demand</b>	<b>87</b>	<b>163</b>	<b>204</b>	<b>160</b>	<b>352</b>	<b>466</b>	<b>212</b>	<b>514</b>	<b>687</b>

Source: Property Economics

Provision for the above potential demand is not without its economic risks, however. Provision of the additional sections is likely to lower prices and itself stimulate demand. Additionally, as retiree demand decreases there is the potential for the overall nominal level of lifestyle demand to fall resulting in excess lifestyle provision with the associated decrease in productivity (due to the fact that it will impractical to amalgamate sites). This would also result in greater marginal infrastructure costs for Council.

## **5. RURAL LIFESTYLE ECONOMIC COSTS AND BENEFITS (GENERAL)**

Due to its productive potential and the activities it encompasses, the Rural environment is an important economic resource for the Taupō District.

Rural land in the district accommodates a variety of uses and activities which benefit the District economically. Such activities include but are not limited to agriculture, forestry, tourism, recreation and electricity generation and transmission. These uses are inherently dependent on the rural characteristics of the environment such as natural lakes and rivers, large areas of open space, vegetation and an environment free of buildings.

In general, urban development can threaten these characteristics, as well as the amenity and functionality of the rural environment. Consequentially, rural lifestyle development has the potential to result in adverse effects on the rural landscape and its economic potential. It is therefore necessary to evaluate the potential adverse economic impacts of rural lifestyle activities on the rural environment of the Taupō District.

The following section provides an outline of potential general adverse economic effects that may arise from rural lifestyle development in the context of the Taupō District. The assessment is made in the context of Scenarios A and B with particular emphasis placed on the rural lifestyle case concept areas identified by TDC.

### **5.1. INFRASTRUCTURE DEVELOPMENT AND MAINTENANCE**

In part, residential activity is restricted to certain zones due to factors associated with the dispersal of residential activity. Such factors have certain economic costs that not only have an effect on the individual making the decision, but the wider community as a whole. These factors can be defined as social costs and result in individuals not directly related to an action incurring costs related to said action. Whereas an individual participant in a market considers the private benefit of their decision, they do not always consider the social costs.

One such cost associated with rural lifestyle activity are the costs associated building and maintaining the infrastructure network. Dispersed residential activity is generally associated with a greater social marginal cost of infrastructure development and maintenance.

Rural lifestyle activity is low density in character with dwellings being more dispersed and isolated than their higher density urban counterpart. However, rural lifestyle dwellings still require service from infrastructure in the form of power, roading, internet connection, wastewater and water supply.

A characteristic of rural lifestyle living is a lower density of residents per square metre. As the cost of installing and maintaining infrastructure is relatively fixed, this results in higher infrastructure costs per household. This concept applies to both infrastructure development and maintenance.

In the case of Taupō, the relatively low number of households in the district amplifies marginal costs associated with infrastructure. Infrastructure maintenance and development is serviced by rate payers. Given rate payers are few in number, the cost per individual of servicing dispersed rural lifestyle activity rises. In this sense, a cost which is relatively fixed in terms of infrastructure is spread across a relatively small population base, resulting in a greater marginal cost per household in terms of developing and maintaining the infrastructure network.

Additionally, this results in residents in higher density residential areas receiving a proportionally lower quantum of infrastructure related spend allocation.

The concept of diminishing marginal benefit of investment applies to infrastructure development. Greater amounts of investment result in diminishing marginal economic benefits. In the case of rural lifestyle activity, the marginal benefit per unit of infrastructure development is lower than its medium density, urban counterpart.

As previously mentioned, in general rural lifestyle development requires proportionally greater amounts of infrastructure investment than urban areas with greater residential density. If engaging in similar levels of investment in more urban areas, a greater proportion of growth could be sustained with equal investment.

In this sense, investment in infrastructure that facilitates rural lifestyle development generates a diversion of growth. Investment is not used to its full potential and greater marginal economic benefits could be realised if the same amount of infrastructure investment was channelled to locations with a commercial focus or higher residential density.

This economic cost associated with infrastructure development and maintenance is an increasing function of residential dispersal, density and distance from the primary urban area in the District.

## **5.2. LOSS OF PRODUCTIVITY**

Residential subdivision and development on existing rural land generates economic costs associated with lost productivity. Rural land often accommodates economically productive uses including agricultural and horticultural production, pasturing and forestry. Such uses are dependent on open space, soil quality and access to fresh water and transport.

Currently, a limited 5% proportion of New Zealand's land remains available for high value agricultural and horticultural production. As uptake of productive rural land continues for non-productive uses, productive land becomes more valuable and greater pressure is placed on remaining land to maintain its productive use.

Soils in the Taupō District are versatile and have been found to have potential in terms of the aforementioned land uses. When coupled with access to fresh water supply, labour supply, large quantities of open space and relatively close proximity to major New Zealand ports and urban centres, rural land in Taupō is considered an ideal candidate for agricultural, horticultural and forestry-based uses.

These uses are considered to be productive economically and are likely to be disrupted by rural lifestyle development. It is therefore necessary to consider the adverse effects that built form residential development will have on productivity in the District and evaluate the economic effects of lost productivity.

Built form residential development has the potential to reduce soil quality, as well as cause erosion, excessive drainage (of both pollutants and wastewater) and fragmentation of rural land. This has detrimental effects on the soil's current and future potential productive uses and limits the quantum of land available for productive uses, effectively reducing the productive capacity of the Rural Environment.

Erosion, excessive drainage and pollution also have an adverse impact on the amenity and character of the rural environment. This has the potential to adversely impact the Taupō District's tourism industry which is discussed at a later stage of this report.

Issues related to erosion, water runoff and soil quality are also generated as a result of infrastructure development. For example, the loss of topsoils during road construction. Additional infrastructure development and maintenance is often required to facilitate rural lifestyle development, hence generating the identified adverse impacts.

As an economic cost, loss of productivity associated with rural lifestyle subdivision is an increasing function of development density. In this sense, the economic impact will vary dependent on the identified scenario. Productivity losses are likely to be higher under Scenario B due to greater development density and therefore greater land fragmentation and soil disturbance.

Lifestyle blocks could still be considered to have potential productive uses. However, the reality is that the majority of lifestyle block owner's primary source of income is not sourced from their property. In this sense, the productive value of the land would be greater if agricultural, horticultural or forest-based usage were the primary activity.

The productive potential of a rural lifestyle site is often an increasing function of minimum subdividable area.



### **5.3. LACK OF ACCESS TO PUBLIC TRANSPORT, INCREASED TRAVEL TIMES AND CONGESTION**

Rural lifestyle development is a form of urban sprawl. Urban sprawl is often correlated with increased usage of private vehicles and reduced usage of public transport. This has the potential to generate economic costs associated with increased traffic congestion, extended travel times and reduced parking efficiency.

Congestion costs consist of incremental delay, vehicle operating costs (fuel and water), pollution emissions and productivity. Extended travel times are likely to have similar economic impacts and occur in conjunction with and as a result of congestion costs. An increased rate of depreciation of public roads is also associated with increased use of private vehicles.

Economic costs associated with congestion and extended travel times are dependent on existing infrastructure to the residential development, as well as the development's location and density. The extent of the economic cost increases with the isolation and density of residential development and is exacerbated by the quality of the infrastructure network.

For example, a poor infrastructure network in conjunction with a high-density residential development is likely to result in significant congestion costs. An isolated residential development is likely to result in significant economic costs associated with extended travel times.

This is an important consideration in terms of the distribution and location of rural lifestyle property. In terms of the identified concept areas, the economic costs associated with congestion and travel time will vary. The concept areas vary in their distance to the Taupō urban area, in their current rural lifestyle capacity and in their position within the existing infrastructure network.

Therefore, in terms of economic costs associated with travel time and congestion, certain concept areas have the potential to better accommodate built form residential development. The same can be said for each Scenario, with minimum lot size affecting the density and capacity of development in each concept area.

Adverse environmental impacts are also associated with private vehicle usage. Cumulatively, these effects have the potential to have significant adverse effects on the District's rural amenity and character, which is an important economic resource.

The Taupō District relies on its natural environment to drive its tourism industry, which is a primary economic activity generator in the District in terms of expenditure and employment. Therefore, detrimental effects on the natural landscape such as pollution is likely to negatively impact the District's tourism industry.

Public transport networks can assist in avoiding a proportion of these economic costs, however it is often inefficient to extend public transport networks to isolated locations with low population bases. In the case of rural lifestyle development, population is often low density and isolated.

It is unlikely the public benefit generated by a public transport network would in this case be significant enough to offset the cost of installation and maintenance of the network. It should be noted that efficiency and effectiveness of public transport systems is an increasing function of residential density. Therefore, public transport considerations have the potential to change depending on the Scenario adopted.

#### **5.4. ADDITIONAL ECONOMIC COSTS**

Further economic costs associated with urban sprawl include:

- **Adverse economic impacts on existing centres and public goods**

Urban sprawl can generate economic costs surrounding decreased vitality of existing commercial centres and public goods.

Urban centres are often designed in accordance with the existing plan with consideration given to the existing residential environment and infrastructure. Accessibility, amenity and proximity to residential markets are integral to a commercial centre's success.

Extended travel times, lack of access to public transport and traffic congestion facilitates decreased use of commercial centres. In conjunction with lack of proximity to centres, these factors make individuals less likely to visit centres for both retail and employment purposes.

Similarly, rural lifestyle development reduces access to public goods such as schools and healthcare. Public service networks are more efficient economically when serving higher density residential development and are often characterised by strong economies of scale.

Hence an economic cost arises from having to service a wider residential area, such as what would be observed under intensified rural lifestyle development.

- **Adverse economic impacts on the tourism industry**

Built form residential development also facilitates erosion and water and pollutant runoff into Taupō District's lakes and rivers. In this case water pollution is generated and a higher risk of ground water contamination is introduced.

Rivers and lakes are a particularly sensitive component of the district's rural character and the tourism industry is an integral component of the Taupō District economy. This industry largely relies on the cleanliness and aesthetic of the district's rivers and lakes.

Pollution of these rivers and lakes could therefore inflict adverse economic impacts on the tourism industry through deterring visits associated with tourism and the use of rivers and lakes for tourism related activities.

Visual / Aesthetic impacts on the landscape must also be considered. Buildings are visually obtrusive to the natural landscape, negatively impacting its rural character and amenity. This is particularly important in terms of the Taupō District which relies on the amenity and character of its Rural Environment for economic purposes.

Tourism and migration to the district is often dependent on the amenity and visual aesthetic of the natural landscape. A less visually appealing environment is likely to have adverse impacts on the District's ability to draw visitors and migrants.

As with other economic costs, these adverse impacts are directly proportional to the scale and infrastructure requirements of the rural lifestyle development. Therefore, economic costs will vary between the assessed scenarios. Also, in terms of visual and aesthetic impacts, economic costs will also vary with the location of the residential development.

## **5.5. ECONOMIC BENEFITS**

Contrasting social costs are social benefits, economic impacts that benefit the wider community as a whole as a result of a decision.

The primary economic benefit of allowing for additional rural lifestyle development in the district is the private benefit associated with an individual's decision. However, there are also several social benefits. These may arise as a result of an individual decision positively impacting the wider community economically.

In the case of rural lifestyle product in the Taupō District, these benefits primarily stem from an improved residential product which is likely to generate a competitive advantage for the district. The result of this competitive advantage is likely to be a higher demand for rural lifestyle property in the District and increased economic activity stemming from the resulting inflow of residents.

One factor that influences competitive advantage is price. Increased supply of rural lifestyle product will have the effect of pushing down its price. Proportionally lower prices in a desirable location are likely to provide the Taupō District with a competitive advantage over neighbouring districts in terms of rural lifestyle property.

Additionally, further rural lifestyle subdivision is likely to provide more appropriate residential product and greater choice in the market. Rural lifestyle living is often desirable; however, this desirability is often proportional to the size of the lot. Relatively small rural lifestyle lots are often more attractive due to them still possessing rural lifestyle character and amenity while being easier to maintain. While there is a growing market for larger 5ha – 10ha rural lifestyle blocks due to the increased feasibility for smaller land based production (e.g. avocados, aquaculture, olives etc), this is a decreasing proportion of the market, with sites sized between 2,500sqm and 20,000sqm increasing in attractiveness.

In this sense, rural lifestyle subdivision improves the attractiveness and appropriateness of the District's rural lifestyle product and provides greater choice to the market, further improving the aforementioned competitive advantage.

The primary benefit associated with this increased demand for rural lifestyle property comes in the form of increased employment and economic activity generation in the district. Each of the aforementioned factors is likely to have the effect of boosting demand for rural lifestyle product and generating an inflow of residents into the district over and above what would be seen in a Current Provisions growth scenario.

The additional population will provide a base for increased business activity a general improvement in the existing economic environment. This increase in economic activity is the primary benefit resulting from the competitive advantage generated by the improvements in price, availability and quality of rural lifestyle product.

As with social costs, the extent of these social benefits is dependent on the scenario adopted and the extent of rural lifestyle development. Scenario B is likely to provide a greater economic benefit than Scenario A due to the increased choice and greater impact on supply it provides. However, as addressed in the economic costs section of the report, economic costs under Scenario B are likely to be more significant than economic costs under Scenario A.

The remainder of this report where possible quantifies the identified economic costs and benefits of rural lifestyle subdivision in the context of the Taupō District. Additionally, we address counterfactuals to the identified economic costs and how certain areas effect the extent of the costs and benefits. Ultimately, the net cost or benefit that results under each scenario is established.

## 6. SCENARIO CAPACITY AND ECONOMIC IMPACTS

Table 10 following outlines the rural lifestyle development capacity under both the identified scenarios A and B (as well as the Current Provisions). While each scenario results in a differing product (Scenario A the potential for additional housing units and scenario B the potential for additional sites), the table breaks down both the potential for additional sites and dwellings under these scenarios.

Currently it is estimated that, within the identified areas there are 36 'vacant'<sup>1</sup> sites, while under the current provisions an additional 90 rural lifestyle sites could be subdivided.

Scenario A would retain this level of subdivision potential but increase the dwelling capacity due to 2 dwellings being permitted on a rural lifestyle site under 10ha. Considering the vacant and potential new sites, scenario A would allow for an additional 828 dwellings on rural lifestyle sites throughout the identified areas.

It is important to note, given the demand generated in the preceding section, that while this product is not favoured by the market this allowance would provide increased capacity. This while increasing the per site cost of rural lifestyle sites (due to the increased flexibility and realisation of housing) it is likely to ultimately reduce the cost per dwelling (in terms of the land component) and increase the overall price competitiveness of the rural lifestyle product in Taupō.

Scenario B allows for the subdivision of sites down to 2ha and therefore significantly increases the capacity of rural lifestyle sites within the District. Table 10 shows that the potential capacity within the identified areas allows for an additional 1,596 sites (above the current level of vacant capacity). This level of change is likely to have a material impact on the ability and willingness of the market to subdivide these properties and in turn markedly increase the potential demand for rural lifestyle sites within these areas (outlined in the previous section).

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<sup>1</sup> A site is considered vacant lifestyle if it is under 100ha and does not have any registered improvement value according to the TDC rating database



TABLE 10: SCENARIO CAPACITY DEVELOPMENT POTENTIAL

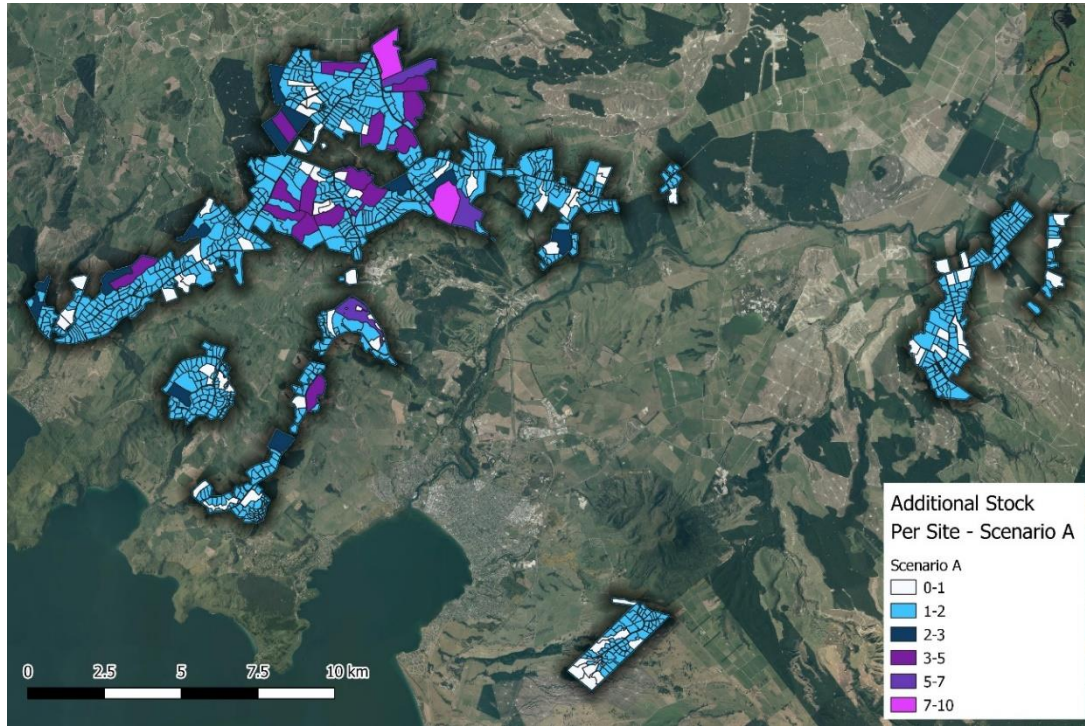
	Existing		Scenario A		Scenario B	
	Sites	Occupied	Potential Additional Sites	Potential Additional Dwellings	Potential Additional Sites	Potential Additional Dwellings
<b>Bonshaw Park</b>	69	68	0	60	82	83
<b>Tukairangi Road</b>	129	124	13	131	186	191
<b>Mapara Road</b>	100	97	3	102	95	98
<b>Oruanui Road</b>	240	223	52	263	675	692
<b>Palmer Mill Road</b>	111	107	6	106	189	193
<b>Whangamata Road</b>	164	158	16	166	333	339
<b>Broadlands Road</b>	142	134	3	137	216	224
<b>SH5 Concept</b>	32	32	2	31	49	49
<b>SH1 Concept</b>	52	45	50	94	375	382
<b>TD 2050 Areas</b>	60	51				
<b>Other</b>	3,254	915				
<b>Group 1 Subtotal</b>	<b>813</b>	<b>777</b>	<b>90</b>	<b>828</b>	<b>1,560</b>	<b>1,596</b>
<b>Group 2 Subtotal</b>	<b>1,039</b>	<b>988</b>	<b>145</b>	<b>1,090</b>	<b>2,200</b>	<b>2,251</b>
<b>Total</b>	4,353	1,954				

Source: Property Economics

This capacity is geospatially illustrated in Figures 3 and 4 following, indicating the identified areas and the potential location of capacity under each scenario.

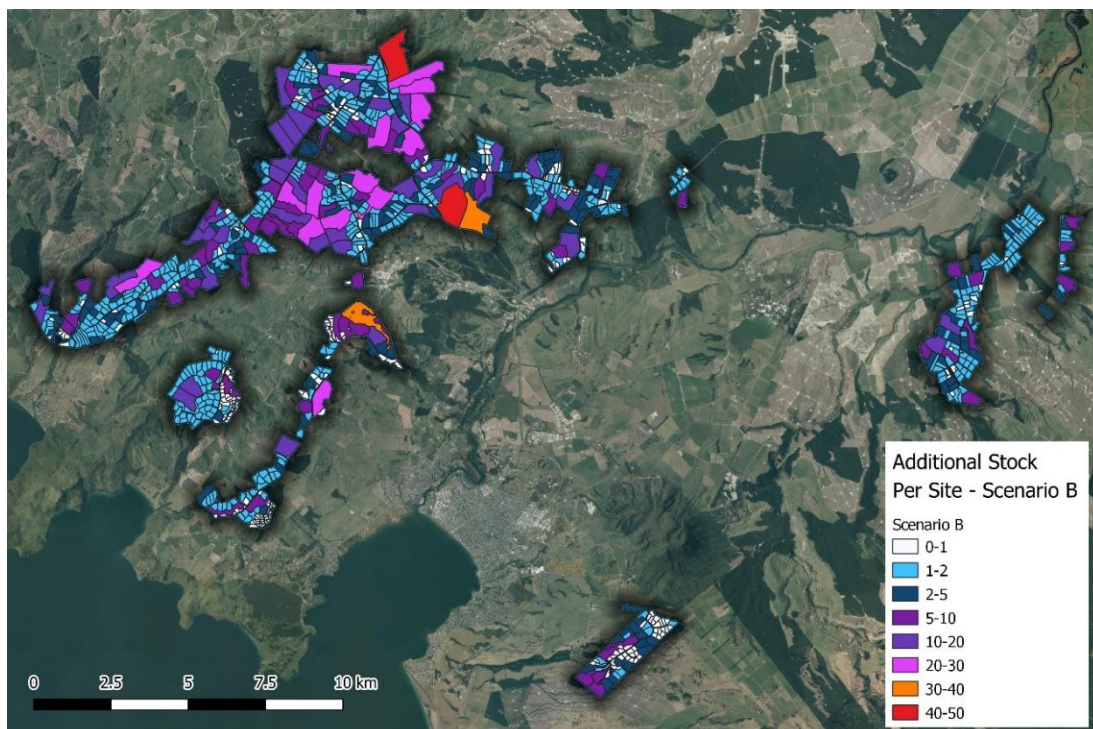
Under both scenarios the Oruanui Road area accommodates the primary level of growth, from 32% under scenario A to 43% under scenario B.

FIGURE 3: SCENARIO A CAPACITY DEVELOPMENT



Source: Property Economics, Taupo District Council

FIGURE 4: SCENARIO B CAPACITY DEVELOPMENT



Source: Property Economics, Taupo District Council

As indicated, generally, above rural lifestyle development has the potential to result in both economic benefits and costs for the Taupō District economy and community. While some of these impacts can be estimated and quantified many remain a value judgement for the community as qualified impacts.

Table 11 provides a summary of the quantifiable economic impacts of additional rural lifestyle development. The remainder of this section addresses these impacts, along with other qualified impacts, in greater detail.

**TABLE 11: QUANTIFIABLE ECONOMIC COSTS AND BENEFITS**

	<b>Economic Benefits</b>	
	Scenario A	Scenario B
Additional Retail Expenditure p.a.	\$7.95m	\$14.8m
Additional Employment	185	355
Total Value Added p.a.	\$17m	\$33m
	<b>Economic Costs</b>	
Value of Lost Productivity	\$3.1m	\$4.1m

Source: Property Economics

### *Economic Benefits*

There are several economic benefits resulting from the provision of rural lifestyle sites for Taupō including

- Increased choice (this allows for a variety of residential living situations that afford members of the community greater levels of satisfaction depending on their preferences)
- Increased wealth. The provision of rural lifestyle sites is likely to elevate the value of rural land beyond its primary use. While this has the potential to reduce its productive use value it increases its capital value providing greater wealth within the District
- Increase economic activity. The potential for rural lifestyle provision to attract greater level of population growth leads to greater levels of economic activity.

- a) **Current Provisions:** The potential increase in activity under the current provisions is difficult to assess. This activity forms part of the current economic environment and as such the level is ultimately set at zero.
- b) **Scenario A:** As outlined in the preceding sections this change has the potential to increase the attractiveness and therefore demand for rural lifestyle in the Taupō District. While this may marginal impact the residential living choices of the existing and future residents, its primary impact is likely to be in attracting additional, specific, growth from outside the District. This has been estimated at 260 additional households.

Several factors have been included in the assessment of the resulting economic activity including: higher average property values, the typical household structure, average labour force participation rate.

Additionally, the value of spend generated by these new households does not wholly correlate with the value 'added' to the Taupō economy. In order to assess this Tables 12 and 13 outline the Districts employment composition as well as its employment ratio, indicating the average proportional retention rate of economic activity by sector.

- i. Additional retail expenditure: \$7.95m per annum
- ii. Additional Employment: 185 additional jobs
- iii. Total Value Added: \$17m per annum

TABLE 12: TAUPŌ DISTRICT EMPLOYMENT COMPOSITION

	2000	2006	2008	2016	2017	2018	Net Growth (2000-2018)
A Agriculture, Forestry and Fishing	1,618	1,442	1,596	1,945	1,857	2,016	398
B Mining	12	160	153	156	156	136	124
C Manufacturing	1,133	1,295	1,228	1,266	1,207	1,183	50
D Electricity, Gas, Water and Waste Services	190	145	165	330	337	367	177
E Construction	593	1,068	1,267	1,067	1,164	1,263	670
F Wholesale Trade	251	245	293	334	336	375	124
G Retail Trade	1,670	2,060	2,053	1,946	1,994	2,104	434
H Accommodation and Food Services	2,273	2,530	2,471	2,476	2,581	2,498	225
I Transport, Postal and Warehousing	521	609	660	525	554	653	132
J Information Media and Telecommunications	302	195	172	74	82	75	-227
K Financial and Insurance Services	126	174	194	142	139	152	26
L Rental, Hiring and Real Estate Services	242	306	354	444	453	442	200
M Professional, Scientific and Technical Services	423	554	593	759	821	810	387
N Administrative and Support Services	240	349	334	324	313	311	71
O Public Administration and Safety	541	762	864	746	674	778	237
P Education and Training	929	896	1,061	1,136	1,084	1,102	173
Q Health Care and Social Assistance	682	872	856	1,022	995	986	304
R Arts and Recreation Services	286	432	461	534	494	497	211
S Other Services	329	424	422	458	508	507	178
<b>Grand Total</b>	<b>12,361</b>	<b>14,518</b>	<b>15,197</b>	<b>15,684</b>	<b>15,749</b>	<b>16,255</b>	<b>3,894</b>

Source: Property Economics, Statistics NZ



TABLE 13: TAUPŌ DISTRICT EMPLOYMENT RATIOS (2018)

	National ANZSIC %	TD %	TD Ratio
A Agriculture, Forestry and Fishing	5%	12%	2.29
B Mining	0%	1%	3.53
C Manufacturing	10%	7%	0.70
D Electricity, Gas, Water and Waste Services	1%	2%	3.06
E Construction	8%	8%	1.02
F Wholesale Trade	5%	2%	0.45
G Retail Trade	10%	13%	1.34
H Accommodation and Food Services	8%	15%	2.04
I Transport, Postal and Warehousing	4%	4%	0.96
J Information Media and Telecommunications	2%	0%	0.29
K Financial and Insurance Services	2%	1%	0.38
L Rental, Hiring and Real Estate Services	2%	3%	1.76
M Professional, Scientific and Technical Services	8%	5%	0.60
N Administrative and Support Services	5%	2%	0.36
O Public Administration and Safety	6%	5%	0.87
P Education and Training	8%	7%	0.80
Q Health Care and Social Assistance	11%	6%	0.57
R Arts and Recreation Services	2%	3%	1.60
S Other Services	3%	3%	0.95

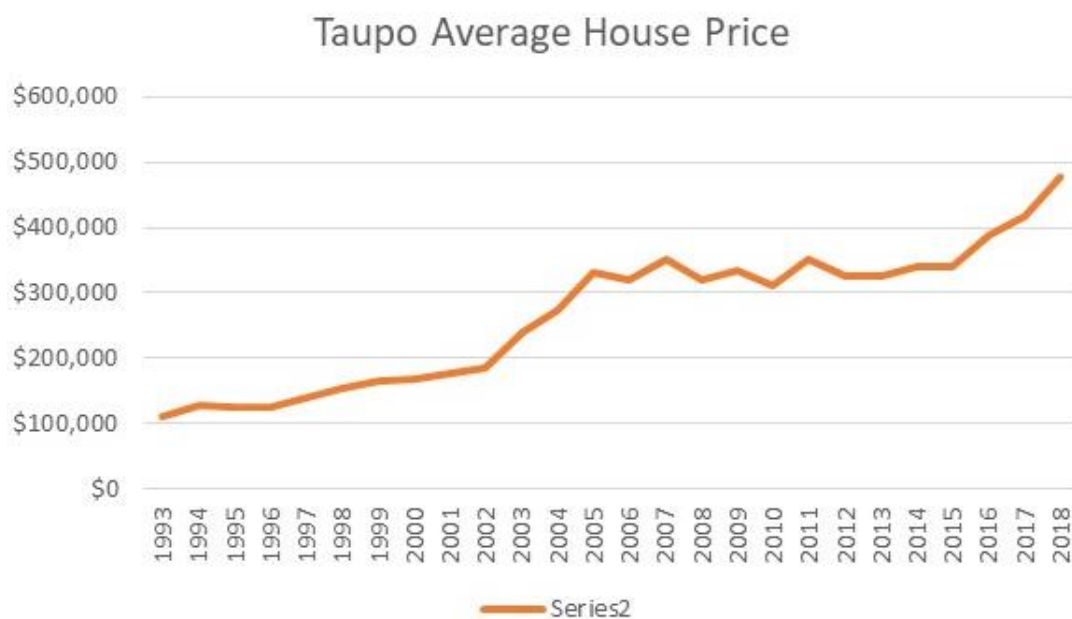
Source: Property Economics

- c) **Scenario B:** Also has the potential to increase the attractiveness and therefore demand for rural lifestyle in the Taupō District. This has been estimated at 480 additional households. A contributing factor to the assessment of economic activity here is the fact that the greater provision for rural lifestyle is likely to impact upon relative prices and therefore change the economic composition of the migrating demand.

- iv. Additional retail spend: \$14.8per annum
- v. Additional Employment: 355 additional jobs
- vi. Total Value Added: \$33m per annum

- **Amenity Value:** While much of this value is inherent in the price of the property there is some value in increased accessibility to the rural landscape through the community's ability to live in it. This is of course countered by the potential impact of rural development on the value of the landscape itself (particularly visual landscape) to the wider community.
- **Housing:** House prices in the Taupō District have followed the national trend of rapid growth over the past 5 years. With growth of over 30% this growth has placed substantial pressure on affordability within the District. The provision of additional capacity within the District (although in itself generating greater demand) is likely to redress some of this current and future pressure on house prices. Given the substantial capacity increase under Scenario B this is the most likely to impact upon prices in the District.

FIGURE 5: TAUPŌ DISTRICT HOUSING PRICES (2018)



Source: Property Economics, Taupo District Council

## Economic Costs

There are a variety of well documented economic costs associated with rural lifestyle development. As this product has become increasingly popular the potential economic impacts have become increasingly overt. This is primarily due to the cumulative impact of this form of development rather than the marginal costs associated with individual sites.

Additionally, the specific costs, and also site-specific costs, are the result of significant value differences between visual amenity and productive value.

- **Productivity:** While not necessarily District specific there is a significant quantum of research regarding the level of lost productivity resulting from the subdivision of rural land. Rural lifestyle, particularly, is land extensive and so has the real potential to impact upon an economy's productivity.

Nationally over 880,000ha is currently utilised for lifestyle purposes. Within this there is a significant range of impacts on productivity with a clear demarcation between 10ha blocks and under. While these groupings are large, typical 10ha lifestyle blocks have increasingly found a productive niche with crops such as olives and avocados requiring lower economies of scale, while owners also require a lower return on land than typical commercial models.

However, small blocks from 10ha down have a decreasing propensity for productive use, with this diminishing to an average of almost zero under 2ha (with some minimal land-based home business still viable).

Additionally, the dominance of dairy in the Waikato Region means that the counterfactual position in terms of land productivity, is higher in Taupō than the national average (however dairy farming is very land extensive and so is unlikely to occur on smaller sites).

- Current Provisions:** Currently only 12% of what have been designated as rural lifestyle sites are over 10ha, however this in turn makes up over 60% of the total land area for this use and is likely to remain relative productive (at approximately 67%). The remaining 40% of land utilised currently falls markedly in terms of productivity to as low as 7%. This translates to a productive loss (in terms of direct GDP) to the Taupō economy of \$3.1m per annum<sup>2</sup>.
- Scenario A:** Slightly more difficult to assess due to the fact that this scenario does divide up larger, more productive, blocks but does add increased difficulties due to the additional dwelling. In terms of land area utilised this

<sup>2</sup> This excludes the flow on losses attributable to this loss of activity within the economy, which is likely to be over 100% more in total.

would only marginally increase the figure above, but the potential sensitivities around the household living could reduce this further.

- c) **Scenario B:** Has the potential to significantly change the rural lifestyle landscape. However, it is pertinent to assess the level of affects based on the potential uptake rather than the capacity. Additionally, the impact on productivity will be dependent on which blocks are divided, with larger blocks exhibiting greater production than the smaller sites. Having considered location and site size it is estimated that the productive loss resulting from, potentially, a further 480 rural lifestyle blocks of 2ha is likely to be an additional \$1m per annum.

- **Infrastructure and Economic Efficiencies:** A key planning and economic consideration with regard to rural lifestyle development is the impact on the efficiencies associated with a more consolidated urban form. Rural lifestyle development represents a form of residential dispersal that potentially has costs that are generated beyond the land use itself.

This dispersal of growth has the potential to not only increase the operational costs for those living in these locations but also redirects growth away from areas that would potentially exhibit greater degrees of efficiencies (lower marginal costs) if this growth were accommodated in a more consolidated form.

Consolidated residential activity, in itself, provides greater choice both in terms of product and the supporting services that are sustainable. The critical mass created through the additional households has the potential to increase local amenity through increased retail viability, employment and agglomeration benefits.

The presence of infrastructure capacity is a fundamental consideration in the community cost of this form of development. Recent studies<sup>3</sup> have indicated that the dispersal of the residential population has a direct impact on the costs of infrastructure with fringe locations costing between 30 – 50% more for necessary servicing and 13% more for maintenance.

Additionally, the marginal cost on existing infrastructure capacity is directly proportional to the redistributed population. This implies that, if there were sufficient capacity within the existing Taupō urban infrastructure to accommodate the 777 households currently on lifestyle blocks, this would reduce the marginal cost of provision by 4% across the District.

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<sup>3</sup> *The cost of residential servicing, The Centre for International Economics 2015 (CIE)*

The extended distance from employment and service facilities also means that these lifestyle sites create additional costs. While part of this is covered in individual decisions and represents the price residents are willing to pay for this lifestyle there is also a community cost involved with increased congestion and a reduced ability to provide effective and efficient public transportation.

- **Tourism:** The tourism market is a major contributor to the District economy and is in large part due to the quality of the natural landscape. While it is difficult to assess the potential impact on this value as a result of rural lifestyle development it is pertinent to consider this activities impact on the natural landscape and the potential for this impact to flow on to the value tourism plays in the local economy.

Tourism spend in 2018 was over \$650m with it contributing 14% of nearly \$280m to the Districts GDP.

### *Potential Risks and Benefits*

There remain a number of potential risks to the Taupo District economy through the current rezoning of lifestyle sites to meet future and potential demand in the market. As identified above either zoning or signalling to the market that identified areas will be considered for lifestyle development is likely to attract an additional value to the land (as a proportion of the higher land use activity value). This higher value has the potential to render the land unfeasible for its current productivity value.

This ultimate can led to two outcomes. If the proportion of the increased value attributable to the land currently is low enough, it can lead to what is essentially land banking with land sitting productivity with that potential land use value offset by the future development gain. If the market, however, seeks to obtain too high a price for the development potential initially the land could retain some productive value as it remains in its current use.

Signalling or zoning excessive levels of lifestyle capacity to meet future demand (while to a degree facilitating that demand) can lead to a reduction of productivity that is not offset if that demand does not eventuate

A further concern to the market of significant rezonings or greater provision of lifestyle development under the plan, is its potential negative impact on price. While a key component of this form of residential product is a longterm lifestyle offering, the stability of this products price can play a role in the overall economy.

Increased supply, or even potential supply, for future growth can significantly impact on price. Significant shifts in the price of future and existing lifestyle blocks (which typically have a higher land component) can increase uncertainty in the market leading to a marked loss of capital for existing owners impacting upon spending, but more importantly capital formation and potential local investment.



Additionally, the decreasing site costs have the potential to compete against more urbanised residential options increasing the potential for urban residential demand to shift out rural increasing marginal infrastructure costs and decreasing the potential amenities resulting from a consolidated urban form.

While the '*supply it and they will come*' philosophy has a certain validity to it (if it is not supplied the potential for this growth is lower), there are inherent risks associated with the over provision of lifestyle blocks with Taupo that must be weighed carefully against potential benefits.

## 7. CONCLUSION

Table 14 summarises the position of each of the 6 identified rural lifestyle areas. A larger version of this table is shown in Appendix 1. This includes the potential capacity under each scenario as well as the position of infrastructure within these areas. As identified most areas rely on on-site provision of water and wastewater.

TABLE 14: SUMMARY OF RURAL LIFESTYLE CAPACITY AND POTENTIAL PROVISION

	Capacity			Existing Subdivision	Infrastructure					Suitability		
	Current	Scenario A	Scenario B		Waste Water	Roading	Water	Proposed	Constraints	Scenario A	Scenario B	Issue
<b>Bonshaw Park</b>	1	60	83	68	Onsite	Medium	Drinking Water	Drinking Water	6	5	4	Water
<b>Tukairangi Road</b>	18	131	191	124	Onsite	Medium / Low	Whakaroa Council supply / onsite	None	4	6	5	Roading
<b>Mapara Road</b>	6	102	98	97						7	9	Significant recent development
<b>Oruanui Road</b>	69	263	692	223	Onsite	High	Onsite / no additional Link Road Water Company Ltd capacity	None	3	7	8	Water / Limited recent development
<b>Palmer Mill Road</b>	10	106	193	107	Onsite	High	Onsite	None	3	7	7	Non - specific
<b>Whangamata Road</b>	22	166	339	158	Onsite	Medium	Onsite	None	3	6	7	Roading
<b>Total</b>	<b>126</b>	<b>828</b>	<b>1,596</b>	<b>777</b>								

Source: Property Economics

As outlined above there are significant differences between the areas and the capacity resulting from each scenario. Both Oruanui and Whangamata Roads have considerably higher capacity under Scenario B with Mapara Road showing a slight drop due to the average site size being smaller.

In terms of the potential impact on infrastructure under each scenario, there is physically little difference (in terms of subdivision versus an additional dwelling). This is due to the impact being created through activity and households rather than titled ownership. However, Scenario B provides for greater potential capacity in some areas that may exhibit infrastructure restrictions.

Essentially, potential demand can be met under either scenario if all areas are subjected to the change, however this change should be assessed against absolute infrastructure capacity (rather than the qualified case studies), this may result in a proportional mix within areas.

In terms of available infrastructure assessments Mapara Road should be a priority for potential subdivision (due to the fact that it does not result in increased capacity, between the scenarios and still provides an alternative choice for the market), while Oruanui Road should be targeted under Scenario A as the total impact is lower and the impact on the larger productive sites in this area would be less.



Both scenarios illustrate the potential for 'overprovision' of lifestyle development resulting in dispersed development and losses that would be unnecessary when providing for the projected 240 additional households within the identified areas. It is also important that the market is provided suitable (demanded) product. As such the provision for additional dwellings is less likely to be accepted by the market.

## 8. APPENDIX 1: SUMMARY CAPACITY TABLE

	Capacity		Existing Subdivision	Waste Water		Rooding		Infrastructure		Proposed		Constraints		Suitability			
	Scenario A			Scenario B		Scenario A		Scenario B		Scenario A		Scenario B		Scenario A		Scenario B	
	Current	Scenario A		Current	Scenario B	Water	Waste Water	Water	Waste Water	Water	Waste Water	Water	Waste Water	Water	Waste Water	Water	Waste Water
<b>Boneshaw Park</b>	1	60	83	68	Onsite	Onsite	Medium	Drinking Water	Drinking Water	Drinking Water	Drinking Water	6	5	4	4	Water	
<b>Tukairangi Road</b>	18	131	191	124	Onsite	Onsite	Medium / Low	Whakaroa Council supply / onsite	Whakaroa Council supply / onsite	None	None	4	6	5	5	Rooding	
<b>Mapara Road</b>	6	102	98	97									7	9	9	Significant Recent Development	
<b>Oruanui Road</b>	69	263	692	223	Onsite	Onsite	High	Onsite / no additional Link Road Water Company Ltd capacity	Onsite / no additional Link Road Water Company Ltd capacity	None	None	3	7	8	8	Water / Limited Recent Development	
<b>Palmer Mill Road</b>	10	106	193	107	Onsite	Onsite	High	Onsite	Onsite	None	None	3	7	7	7	Non-specific	
<b>Whangamata Road</b>	22	166	339	158	Onsite	Onsite	Medium	Onsite	Onsite	None	None	3	6	7	7	Rooding	
<b>Total</b>	126	828	1,596	777													

Appendix 1 highlights the development factors for lifestyle properties in each of the identified areas and measures these against each of the potential scenarios for suitability. There are a number of subject and objective factors that comprise the overall recommendations in the report, from this table they include:

- The current level of development within the area as a proportion of capacity. This gives some indication of the markets preferences given the limitations of current capacity and indicates firstly that development here is feasible and secondly that there exists a proportional level of market demand. Subsequently each scenario results in differing capacity levels which provides additional indicators to suitability given the areas ability to meet future demand while limiting impacts and marginal relative (as a function of the identified constraints) infrastructure costs. Additionally, 'suitability' is comprised of current 'localised' changes to land values indicating increased demand in some areas relative to capacity, as well as this representing relative amenity levels. While this is not included as a function, each area is given a relative value for this factor which is included in the overall suitability 'rating'.
- Each of the areas is critique in terms of its current level of infrastructure capacity and suitability (ease of infrastructure provision and potential cost to the individual or developer). Future proposed infrastructure developments are considered in alleviating these constraints or improving the over feasibility. Once again, each area is given a relative rating with 1 representing high infrastructure constraints and potentially higher development costs compared to a 10 that has significant infrastructure capacity and proposed investment leading to lower longterm and potentially development costs.