

## Appendix 10: Technical Report:

### Social and Economic Effects Assessment, Boffa Miskell

# Nukumarū Station Road Extension

Social and Economic Impact Assessment  
Prepared for South Taranaki District Council

24 April 2017

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Appendix 1: Waitotara & Waiinu Beach Access Realignment Economic Impact Review,  
Property Economics, dated March 2017

## 1.0 Background

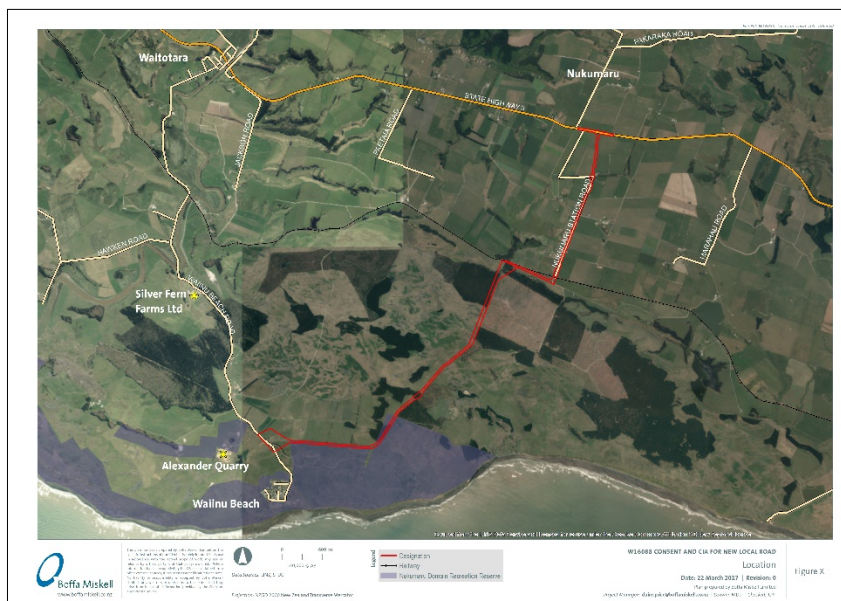
South Taranaki District Council (STDC) are proposing to designate a local road from State Highway 3 to Waiinu Beach, which is effectively an extension to the existing Nukumarū Station Road from State Highway 3 to Waiinu Beach Road. The extended road would become the new access road to the settlement of Waiinu Beach and the section of Waiinu Beach Road south of the Limeworks Bridge. The reason a new alternative local access to Waiinu Beach is proposed, is because the Limeworks Bridge and parts of Waiinu Beach Road are vulnerable to future flood events, and cannot be relied upon as secure road access.

This report contains a social and economic impact assessment on the communities and industry affected by securing a new local access from State Highway 3 to Waiinu Beach via the existing Nukumarū Station Road, and the eventual closure of the Limeworks Bridge.

## 2.0 Study Area

The communities of Waitotara and Waiinu Beach are currently connected via Waiinu Beach Road; a no exit road that intersects State Highway 3 at Waitotara. Nukumarū Station Road is a no exit local road providing direct access for existing farms and households onto State Highway 3. Nukumarū Station Road generally marks the boundary between Whanganui and South Taranaki districts. Refer to Figure 1 for the Location Plan.

The scope of the study is confined to the two existing settlements and associated farming communities in the vicinity of Waitotara and Waiinu Beach, and existing agricultural and manufacturing industries based within these areas.



## 3.0 Methodology

The information gathered for this assessment includes quantitative and qualitative data.

The quantitative information includes the estimated changes in travel times for driving between the settlements and surrounding areas, and the volume of traffic that these travel times will impact. This information was produced by South Taranaki District Council and Traffic Design Group and set out in the traffic assessment report, dated March 2017.

To understand the economic impact to the wider community, but also to individual communities and key activities, particularly the settlement of Waitotara and Silver Fern Farms, an economic analysis was carried out to determine the estimated impacts. This assessment was carried out by Property Economics and set out in report dated March 2017, and attached as Appendix 1 to this report.

Population statistics and other census data from Statistics New Zealand, has been used to generate a basic community profile of Waiinu Beach and Waitotara communities, in conjunction with information set out in the STDC Business Case.

The qualitative data includes information gathered from phone conversations or face to face meetings with key community stakeholders, as well as conversations with attendees at two community meetings (Waiinu Beach, 5<sup>th</sup> December 2016 and Waitotara 26<sup>th</sup> January 2017). This qualitative information has provided an understanding of the key social effects the local community consider important to them, as a consequence of the proposed new road and the likely closure of the Limeworks Bridge.

## 4.0 Communities

### 4.1 Waitotara

Waitotara settlement is located on the northern side of Waitotara River and spans across State Highway 3 on Trent Street. Since 1971 the five yearly census records show a population decline, where the usual resident population recorded in 1971 was 158 and the latest census data in 2013 recorded a usual resident population of 63 people. The wider Waitotara area is home to an additional 249 residents in 102 homes.

Property Economics note the population change between 2001 and 2006; a drop of 35 in the population, coinciding with the extreme flooding in 2004. The report also notes that many homes and the original Waitotara store were badly damaged during that 2004 flood event. Currently, of the 40 houses in the township, five of these remain unoccupied.

The 2013 Census work and labour force data state that 30 people are either in full time or part time employment, 33 people are not in the Labour Force and 6 people are unemployed.

The census data also shows that 55% of the population are adults close to or within the retirement age, which is higher than the whole South Taranaki District proportion of 34%. Refer to Figure 2.

Property Economics also summarise the changes to business activity since 2000, showing how employment in the catchment has changed over time. Employment over 5 separate industries<sup>1</sup> accounted for 33 employees in 2000. This reduced to a total employee count of 6 in 2006, again, post the 2004 floods. The total number has since increased to 9 since 2014.

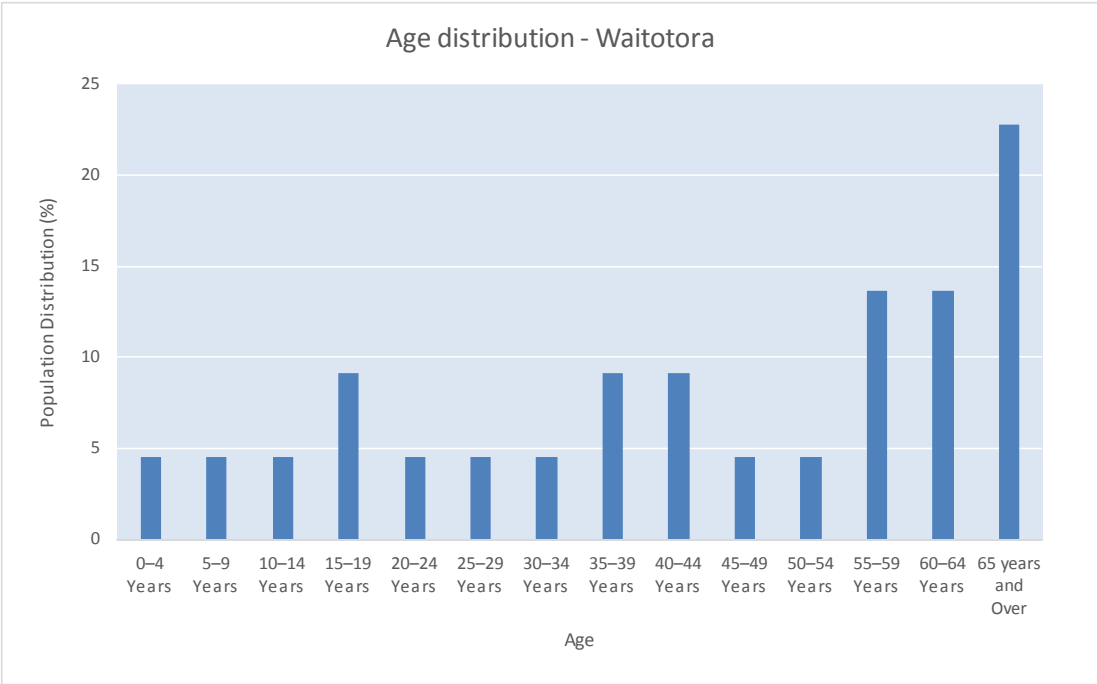


Figure 2 Age distribution – Waitotara, Source Statistics NZ, Census 2013

The commuting statistics and workplace locations for Waitotara workers show that the majority commute to Hawera and the remaining work within Waitotara or at Silver Fern Farms<sup>2</sup>. Refer to Figure 3.

<sup>1</sup> Agriculture, Forestry and Fishing (12), Retail Trade (3), Accommodation and Food Services (3), Transport, Postal and Warehousing (3), Education and Training (12)

<sup>2</sup> An assumption made is that these 6 people commuting to Makakaho are workers of the Silver Fern Farm Abattoir.

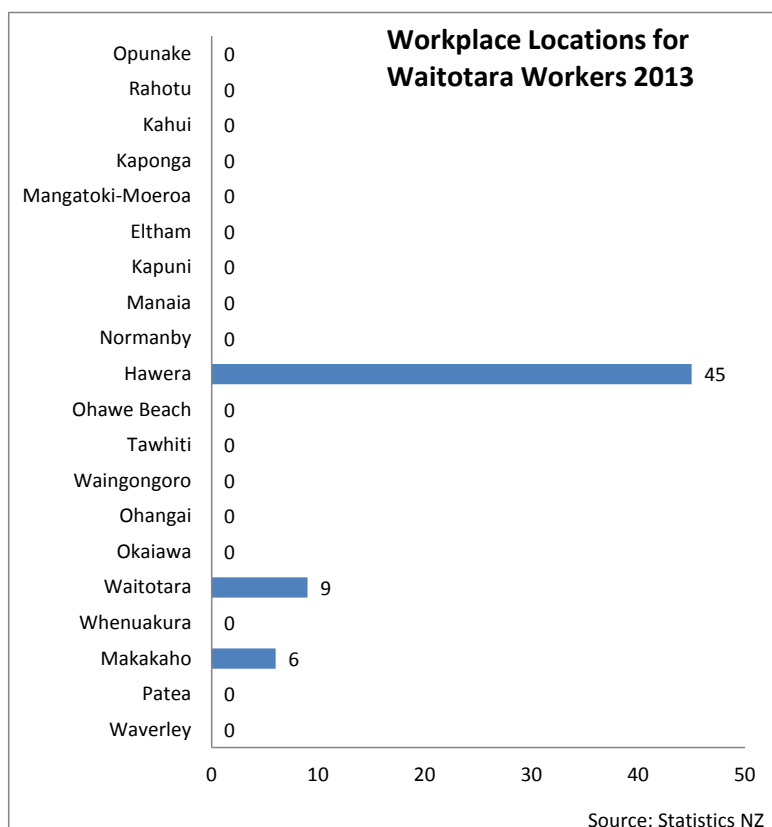


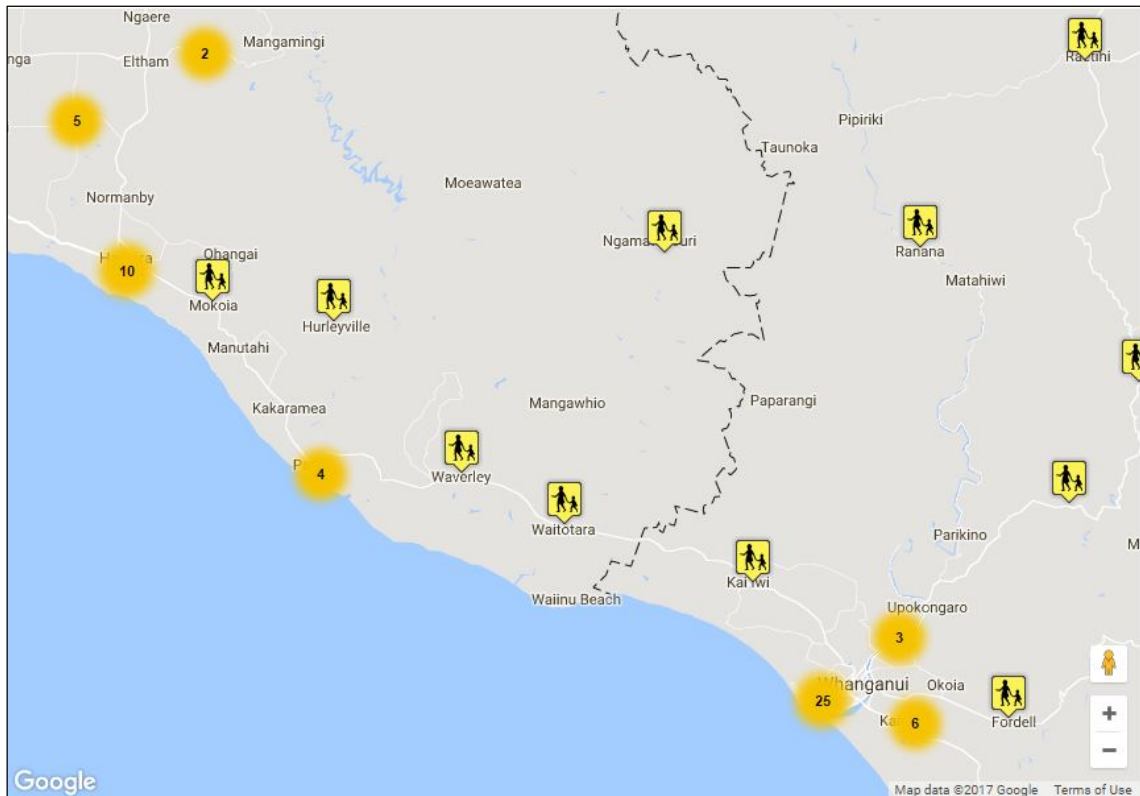
Figure 3 Workplace Locations for Waitotara Workers, Census 2013

Waitotara Primary School (years 1 to 8) is situated on Trent /Severn Street; the northern side of Waitotara and has a roll of 16. The school serves the Waitotara settlement, and the school runs a bus to Waverley to collect students. One student travels from Waiinu Beach to attend this school.

Other primary schools located in proximity to Waitotara include Waverley (Full Primary School), Ngamatapouri School (Full Primary School) and Kai Iwi (Full Primary School). Refer to Map 1 below.

For secondary and intermediate school education, buses collect students from Waitotara and transports them to a number of different schools in Wanganui. The closest South Taranaki school for Waitotara students is Patea Area School (Year 1 – 15) with a bus travelling to the school from Waverley.





Map 1: Schools in proximity to Waitotara and Waiinu Beach, Source Ministry of Education website

Waitotara does not have its own emergency services (NZ Police, Ambulance or Fire service), and relies on call outs to be processed from Waverley or Whanganui, or rescue helicopter from New Plymouth.

The Waitotara Hotel and Store is the only retail activity and provides services such as NZ Post Office boxes for local residents, a meeting place for community gatherings, a bus stop for secondary school students heading to/from Whanganui, and use by the local Waitotara Primary School for Friday lunches.

Waitotara residents and those who live rurally would likely use a larger centre to buy their groceries, or for other required health and professional services. The closest larger rural service towns of Waverley (10.7km), Hawera (55.3km) and Whanganui (33.7km) are likely to be the main centres residents drive to get groceries, as the smaller settlements do not have large supermarkets but rather support smaller 'Four-Square' grocery stores. This statement is supported by Property Economics, who estimate the annual retail spend of \$315,000 generated by Waitotara residents is spread across these three local shopping destinations.

Property Economic also estimate that the "convenience spend", for Waitotara would be approximately \$28,000. This amount is the proportion of economic spend, over the year, used to buy goods and services bought easily, such as on the way home from / to work, or within walking distance from houses/school. Some of this convenience spend would be spent at the Waitotara Hotel/Store.

Overall, during the 1970s when the Waitotara community had access to greater rural industries for job generation, the population peaked at 158. Since that time due to the changing economic conditions and flood events, the population and economic activity has decreased.

## 4.2 Waiinu-Beach

Waiinu Beach community consists of approximately 85 homes and approximately 50% of these are permanently occupied. The remainder are holiday homes, with a number owned by people who reside in Whanganui<sup>3</sup>. The 2013 census data recorded a usual resident population of 72 people and recorded a higher proportion of adults close to or within the retirement age (refer to Figure 4). The population has been relatively stable since 2001, although did peak to 97 in 2006.

STDC have determined that this beachside community is largely a Whanganui based community; where most of the residents travel south to Whanganui for provisions and services rather than north towards South Taranaki's towns. Although comments from the community suggest that some of the retired community at Waiinu Beach prefer to do their shopping, use the library and other amenities in Waverley, rather than Whanganui. Further, there are tradespeople who live and work in Waiinu Beach, and their main source of work is in Waverley.

The residents and visitors at Waiinu Beach would rely on other towns or service centres for goods and services, as the settlement does not have any shops or facilities. Property Economics calculate the Waiinu Beach (and surrounds) a total retail spend of \$2,934,000, with the 'convenience spend' component of \$275,000, which is anticipated to be largely spent in Whanganui or at the Silver Fern Farm on-site café by workers at this plant. However, some of this convenience spend would be spent at the Waitotara Hotel/Store.

There are less than five (5) children aged between 5-9 years, and less than ten (10) children/teenagers. Of these primary school aged children, one is a student at Waitotara Primary School. An assumption made is that the majority of other school aged children attend a school in Whanganui, given the proximity, bus transport and also if parents work in Whanganui and can combine school drop offs/pick-ups. Furthermore, it is possible some child are home schooled.

Of the Waitotara Primary School staff, two (2) staff members live at Waiinu Beach, travelling via Waiinu Beach Road, the Limeworks Bridge and Waitotara to get to and from the school.

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<sup>3</sup> STDC, Business Case for Implementation, Access to Wai Inu Beach Community Nukumarū Station Road Extension, 1 June 2016, page 20

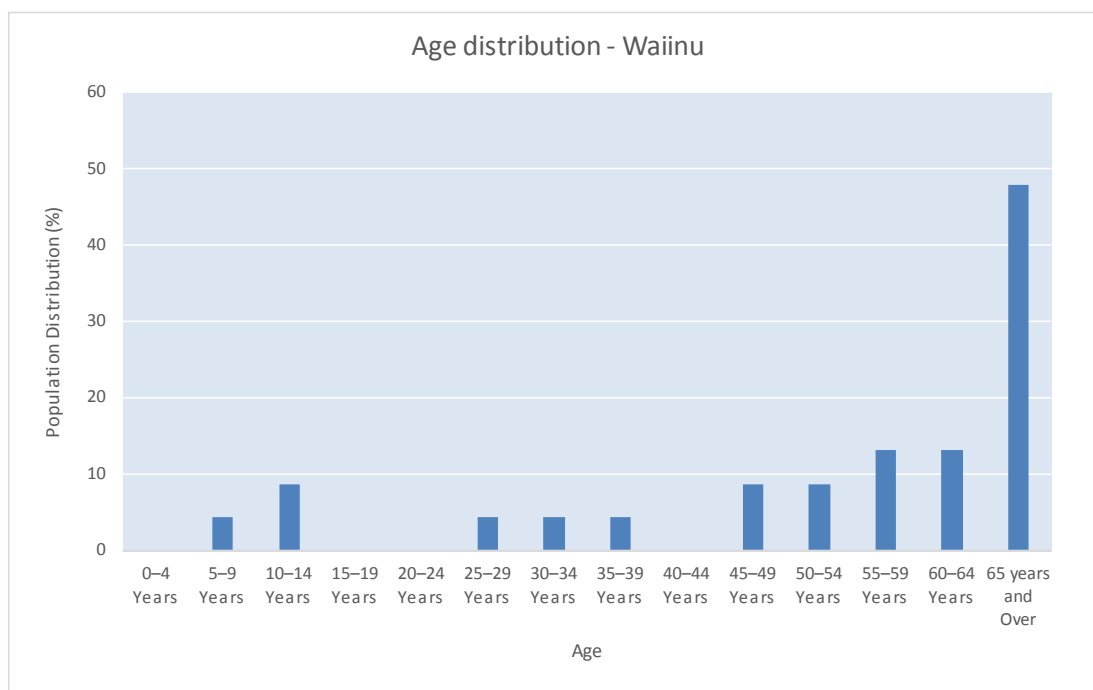


Figure 4 Age distribution - Waiinu Beach, Source Statistics NZ, Census 2013

### 4.3 Industry

Silver Fern Farms operates a meat processing plant within the rural farming environment, on Waiinu Beach Road south of the Limeworks Bridge. Silver Fern Farms Abattoir employs approximately 350 people, 85% of whom are residents of the Whanganui area and the remaining 15% live in South Taranaki, including Waitotara<sup>4</sup>. The Abattoir generates approximately \$400,000 of local revenue per week, in the form of wages, salaries and other immediate local spending within South Taranaki and Whanganui districts. The Abattoir typically runs on a seasonal basis from July to May and operates on two shifts; a day shift 5.50am to 4.35pm and a night shift 5.00pm to 3.00am. Most workers' car pool to get to work and there is a meeting point at Waitotara that is used by many. Access to the processing plant is currently via Waitotara and Waiinu Beach Road, therefore the majority of staff would travel this route and either start or pass through the Waitotara settlement. The plant manager confirms that a secure access route is critical to any form of future investment in the plant for Silver Fern Farms.

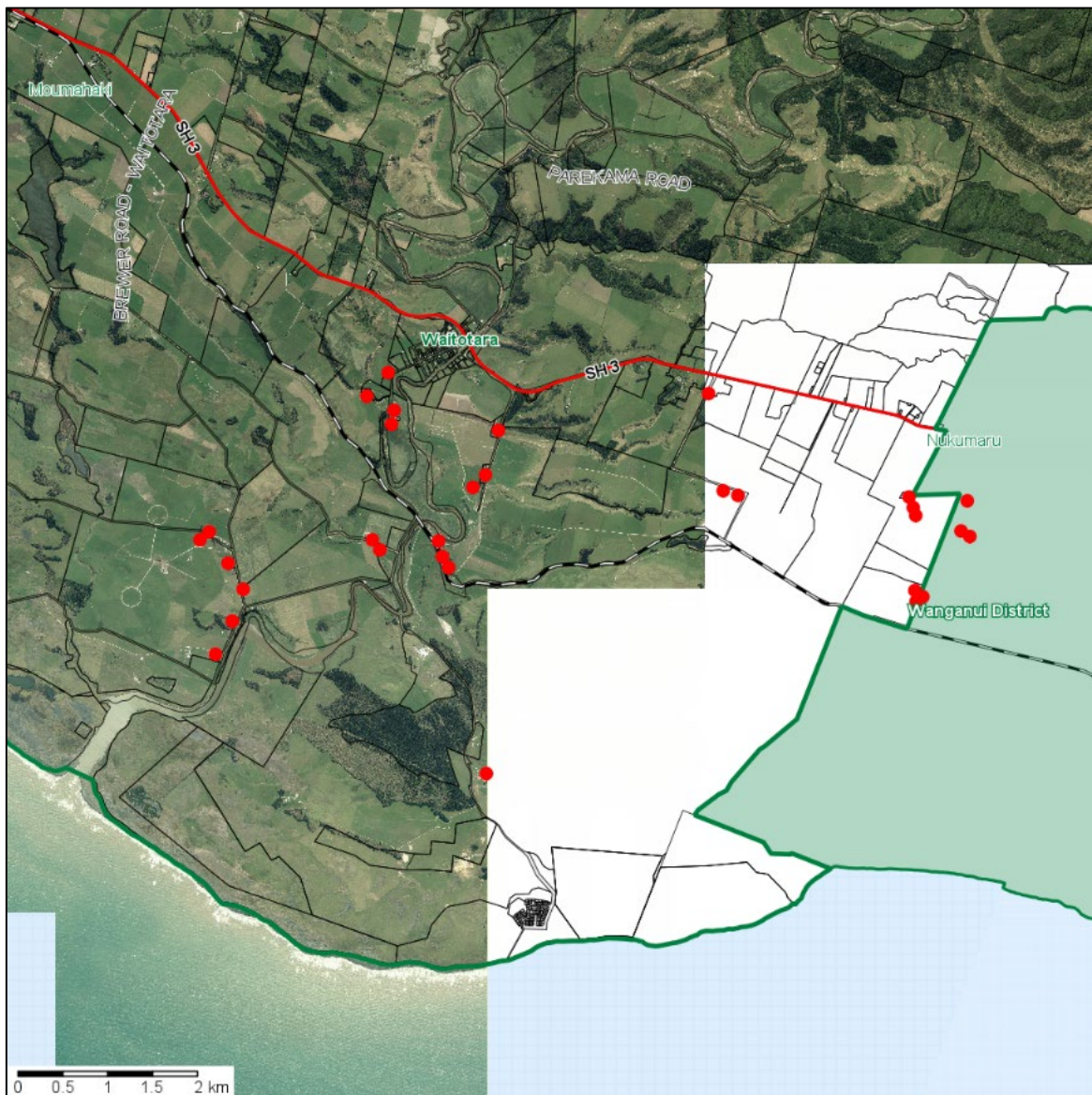
The Richard Alexander Quarry is located approximately 1.3km from Waiinu Beach with access off Waiinu Beach Road south of the Limeworks Bridge. This activity employs three to five staff and is a key supplier to the Whanganui and Waitotara areas, for shellrock, topsoil, and agricultural lime. Of these two markets, the majority of business is north – to Waverley and beyond, rather than south towards Whanganui. Access to the Quarry is currently via Waitotara and Waiinu Beach Road, therefore all staff would travel this route and either start or pass through the Waitotara settlement.

<sup>4</sup> Conversation with Silver Fern Farms Plant Manager, 25/01/2017

## 4.4 Farming and Forestry

### 4.4.1 Rural Dwellings

Using Council's GIS data, the general pattern and distribution of rural dwellings near Waitotara, Waiinu and Nukumarū can be shown spatially. The information shows that rural dwellings are distributed in clusters alongside existing local roads such as Hawkens Road, Waiinu Beach Road (at Waitotara), Jacksons Road, Paetaia Road and Nukumarū Station Road. Few rural dwellings are situated south of the Limeworks Bridge, on Waiinu Beach Road.



Map 2 Distribution of Rural Dwellings based on STDC's GIS information and Census data



#### 4.4.2 Farming and forestry operations

Longview Farms Ltd is a large farm extending from State Highway 3 south to the coast; it operates three farms on the one property, two dairy farms and a coastal beef and sheep farm. Access to the coastal beef and sheep farm is via Waitotara and Waiinu Beach Road.

There are two farming operations with activities on both sides on the Waitotara River. Kim Richardson is a dry stock operation and own property just south of Waitotara village on SH3 and lease a block on the southern side of the Limeworks Bridge. Duncan Wilson owns dry stock and dairy properties with blocks on both sides of the Limeworks Bridge. Mr Wilson farms the coastal leasehold block in conjunction with the dairy farm to the north of the bridge.

Ironsand forest is a forestry block situated immediately south of Silver Fern Farms. Current access to the block is via Waitotara and Waiinu Beach Road.

Refer to Map 3 for a representation of the farming and forestry operations that are undertaken in close proximity of the Limeworks Bridge.



Map 3 Farming & Forestry Operations either side of the Waitotara Bridge, Source: David Pearce, 19/01/2017

#### 4.4.3 Rural recreation/community/social areas or facilities

There are no immediate recreation or community facilities in the area. The nearest facilities would be the Waverley Golf Club, Waverley Racing Club, and Waverley Gun Club. It is understood that some of the Waverley golf club members live at Waiinu.

## 5.0 Assessment of Effects

The following assessment describes the actual or potential social and economic effects on the local community as a result of a proposed new local road from State Highway 3 to Waiinu Beach.

### 5.1 Effects on Waiinu Beach settlement from the new alternative local road

The route of the new local road via Nukumarū Station Road avoids any river or stream crossings and proximity to flood risk areas of the Waitotara River. The construction of the new local road will shorten the travel distance between Waiinu Beach to Whanganui by 4.2km. Whanganui is the nearest main centre to Waiinu Beach, and a secure, reliable road that is closer to this township would have positive economic and social impacts for the majority of the residents and visitors at Waiinu Beach.

There is one primary school student who travels from Waiinu to Waitotara Primary School. Based on the estimated travel distances and times calculated in the Technical Report – Traffic Assessment, this student would experience a longer travel distance of 14.8km to get to/from school, compared to the existing 7km journey. Travel time would extend from 7 minutes (each way) to 11 minutes to continue going to Waitotara Primary School. This student (and household) will have a marginally longer school day.

The longer travel distance may deter future households from choosing to send their children to Waitotara Primary School. However, there are many choices for schooling in the area and travel is required for all of them if a student lives at Waiinu Beach. There are many different reasons for choosing a particular school, and travel time is only one factor. To this end, it is uncertain whether the future roll of the Waitotara Primary School will be adversely affected by longer travel times incurred for those living at Waiinu Beach. The additional travel will adversely affect one (1) household, yet it is considered that the security of access provided with the alternative road would outweigh the cost of the extra travel distance.

Similarly, Waiinu Beach residents who work, shop, and use amenities in Waverley, shall have a longer travel distance (and cost) to continue to do these things. Despite the adverse effect from the extra time and cost of travelling the new route via Nukumarū to get to Waverley, it is considered that the security of access provided with the alternative road would outweigh these costs.

As highlighted in the STDC Business Case, the costs associated with longer travel distances and times needs to be weighed up against the costs of insecurity of the current access over the Limeworks Bridge.

Overall, it is considered that the adverse social and economic effects on Waiinu Beach community are more positive than negative, for the majority of residents and visitors.

## 5.2 Effects on Silver Fern Farms, Alexander Quarry, Longview Farm

### 5.2.1 Silver Fern Farms

The STDC Business Case outlines in Section 6.2.1 of the report that security of access for Silver Fern Farms is important for the meatwork production, logistics for transport, refrigeration and time restrictions to market. A future flood event on the Waitotara catchment could disrupt the only access to the meat processing plant.

The economic cost to Silver Fern Farms from the temporary closure of the plant while access is regained is significant. Previous closures as a result of the 2004 and 2013 Waitotara River flooding have threatened the commercial viability of the abattoir. Property Economics estimate the indicative costs due to closure to be \$60,000 per annum, but note that the real risk is the closure due to reduced feasibility and certainty<sup>5</sup>.

According to the STDC Business Case, the local revenue generated by the Silver Fern Farm meat processing plant is approximately \$400,000 per week. This local revenue is in the form of wages, salaries and other immediate local spending within South Taranaki and Whanganui districts. Consequently, the temporary or permanent closure of the meat processing plant would have significant economic and social costs on the local communities, and wider South Taranaki and Whanganui districts.

A substantial upgrade to the abattoir is planned, yet without secure road access this proposed investment will not be made.

On this basis, the proposed road via Nukumaru would have positive social and economic effects on the immediate and wider community as it would enable Silver Fern Farms to further develop the site and continue to provide employment for local people and processing site for locally farmed animals.

### 5.2.2 Alexander Quarry

The STDC Business Case describes that there could be positive and negative economic impacts on the Alexander Quarry from the new alternative local road. Currently the shell rock market for Richard Alexander Contractors is north of Waitotara and the new road would increase the travel distance and time, therefore increase transport costs. Conversely, the travel distance to Whanganui would reduce and transport costs to service established markets there would decrease. Notwithstanding these changes to travel distances and times, a secure local access to enable any transport, even via a longer route for some transactions, would allow the business to continue to operate should any future flood event disrupt the Limeworks Bridge or other at risk areas along Waiinu Beach Road.

Overall, the proposed road via Nukumaru Station Road would have positive economic and social effects on the Alexander Quarry as it would provide secure local access to enable the business to continue operating and provide employment for local people.

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<sup>5</sup> Section 4.2, Property Economics, Waitotara & Waiinu Beach Access Realignment Economic Impact Review, March 2017

### 5.2.3 Longview Farm

The majority of the new road extension to Nukumar Station Road would be within the eastern edge of Longview Farm. There is support from the landowner of the property and the land within this farm required for the road. The longer road frontage created by this extended road improves accessibility to the farm with opportunity for multiple new access points. This improved accessibility potential increase opportunities for land use change which could increase the productivity of the farm.

The potential closure of the bridge would impact on the coastal beef and sheep farm operation which is currently accessed from Waiinu Beach Road with an extra 7 km travelled several times a week to the Waverley service centre, extra daily travel for some of the staff and, the inconvenience of having to block access from Waiinu Beach Road to their farm tracks to stop locals driving through their farm.

Despite some changes in the way the coastal beef and sheep farm would operate, the proposed road via Nukumar Station Road would have positive economic and social effects on the Longview Farm as it would provide secure local access to enable the farm to continue operating.

## 5.3 Effects on farms divided by the Waitotara River

Some landowners at the Waitotara community meeting on the 5<sup>th</sup> December 2016 raised the issue that the closure of the Limeworks Bridge would remove access between farming units. As described in Section 4.4 of this report, there are two farming operations on both sides on the Waitotara River which use the Limeworks Bridge to move between the two farming units.

Kim Richardson is a dry stock farmer who owns property just south of Waitotara village on SH3 and leases a block on the southern side of the Limeworks Bridge. It is understood that the Richardson family do not run farm machinery between these two blocks, or use the Limeworks Bridge to drive livestock. However, travel to the coastal block via Waitotara and the Limeworks Bridge occurs daily to check stock and the water supply. The additional travel distance incurred by using the proposed Nukumar Station Road would increase daily costs in time and petrol, yet the secure access provided by the proposed road would enable these daily checks on stock to occur which is the greater benefit. On this basis the adverse economic and social effects are considered to be less than minor on the Richardsons farming operation.

It is understood that Duncan Wilson farms his coastal leasehold block in conjunction with the dairy farm to the north of the bridge. A large proportion of the dairy herd are wintered on the coastal block and every year are walked over the Limeworks Bridge. In addition, during the winter/spring tractors and farm bikes are run between the two farms, via Waitotara and Waiinu Beach Road, to attend to stock and feeding out. The proposed road via Nukumar Station Road would require the transportation of the wintered dairy herd via truck, rather than over the bridge. The closure of the bridge would be an increased financial cost to the farming operation.

Overall, the extra distance created by using the proposed Nukumar Station Road instead of the Limeworks Bridge would increase daily costs in time and petrol. Yet the secure access provided by the proposed road would enable these daily checks on stock to occur which is the greater benefit. On this basis the adverse economic and social effects are considered to be less than minor on the farming operations described above.

Ironsand forest is a forestry block situated immediately south of Silver Fern Farms. Current access to the block is via Waitotara and Waiinu Beach Road. Secure access provided by the



proposed road would enable the future harvesting of the forestry in approximately four years' time.

## 5.4 Effects on the Waitotara settlement

A new local road via Nukumarū Station Road and potential closure of the Limeworks Bridge will change the way people currently travel to and from Waiinu Beach, Silver Fern Farms, Alexander Quarry and farms situated on the south side of the Waitotara River. Those travelling to the aforementioned destinations will no longer travel through the Waitotara township.

### 5.4.1 Waitotara Hotel/Store

Currently the Waitotara township has a hotel/store that offers food and beverages, and a selection of groceries and equivalent to a local convenience store. It is the last retailer before Waiinu Beach. Waiinu Beach residents or visitors, holiday makers, local farmers, and workers travelling to Silver Fern Farms, Alexander Quarry are likely to, at times, use the hotel/store for its convenience as they are passing through Waitotara. The frequency of these customers is unknown.

The closure of the Limeworks Bridge would eliminate the regular and chance 'drop in' custom from through traffic of the hotel/store in Waitotara and would have an economic impact on the hotel/store. The Hotel proprietor estimated that they would lose up to 40% of their trade from Silver Fern Farm workers, holiday makers and Waiinu Beach residents. Based on this information, the economic impact of the bridge closure would be significant on this one business.

Property Economics have assessed the economic costs and benefits on the Waitotara township as a consequence of the new road access being provided to Waiinu Beach via Nukumarū Station Road, instead of Waiinu Beach Road and Waitotara. The assessment concludes that there will be impacts on the trade of the Waitotara Hotel/Store because of the loss of through-traffic customers from Silver Fern Farms, beach goers/visitors to Waiinu, and loss of convenience spend for residents at Waiinu. The assessment concurs with the anecdotal information provided by the Hotel/Store owner; that a 40% impact would be reasonable to presume.

### 5.4.2 Travel time for those commuting from Waitotara

Employees of Silver Fern Farms residing north of the Limeworks Bridge in Waitotara, Waverley and those who live rurally, would travel an additional 12.7km (approximately 9 minutes in additional travel time) via the Nukumarū Station Road Extension, compared to their current journey. The additional travel time would generate economic and social costs on those workers, from the increased cost in mileage, and a longer work day. The increase in costs could be mitigated through the continued culture of carpooling, where the costs of extra travel is spread over workers. The increased time and cost on a daily commute is recognised, yet the benefit of secure local road access to Silver Fern Farms would give better certainty that the abattoir will continue to operate and provide jobs. When weighing up the costs and benefits, it is considered that the adverse economic and social effects are less than minor on this group of workers and outweighed by the benefits of local employment opportunities.

#### 5.4.3 Waitotara Primary School

The Waitotara Primary School has students from Waitotara and surrounding rural area. The proximity to Whanganui and Waverley gives many households the choice of multiple primary schools for their children to attend. As stated earlier, one student and two staff members from Waiinu Beach travel to Waitotara Primary School. These three (3) people would be affected by an increase in travel distance of 7.1km (a total of 14.8km) as a result of the new road via Nukumarū Station Road compared to their current travel distance of 7.7km than via the Limeworks Bridge and Waitotara.

The additional travel distance could dissuade other Waiinu Beach households from sending their children to Waitotara Primary School, which would be an adverse effect on the school. However, extra travel time would be one of many other factors in determining schooling therefore the direct impact from the change in route and travel time is considered to be less than minor on Waitotara Primary School.

The proposed new road via Nukumarū Station Road, will not adversely affect the school bus run from Waverley to Waitotara Primary School.

#### 5.4.4 Conclusion on Waitotara

The most significant change to the Waitotara township from the new road via Nukumarū Station Road is the loss of through traffic. Particularly if and when, the Limeworks Bridge eventually closed due to irreparable damage and safety concerns. The reduced market is likely to have a significant adverse economic effect on the Waitotara hotel/store, and there would be indirect effects on the wider Waitotara township community from the potential closure of the only remaining retailer / shop in Waitotara. For some, the loss of the Waitotara Hotel/store would indicate the further decline of the town and a result in the loss of a community focal point.

However, when considering the social and economic effects from secure and reliable road access to Waiinu Beach and Silver Fern Farms (being a major employer of Waitotara residents), there are benefits for the wider community including Waitotara. For example, maintaining Silver Fern Farm operations which are fundamental to the economic well-being of the wider community. Without safe and reliable access (or perceived unsafe access), visitors and locals may decide to go elsewhere and bypass Waiinu Beach and Waitotara collectively. Therefore, the Nukumarū Station Road Extension project enables safe and secure access to Waiinu Beach, and the increased reliability of access would mean visitors and locals are more likely to visit and explore the area as an entirety.

Maintaining the Limeworks Bridge and Waiinu Beach Road access for as long as possible will avoid the immediate severance between Waiinu Beach and Waitotara settlements. A transition period where communities can use both routes and have a strategy in place, should the Limeworks Bridge need to be closed, would mitigate the adverse social and economic effects on Waitotara in the short-term.

### 5.5 Effects on emergency services from the changed alignment

Emergency services (Police, Ambulance and Fire) are stationed at Waverley, Patea, Hawera and Whanganui. Any emergency calls for Waitotara, Waiinu Beach or Nukumarū would be

serviced by any one of these stations, depending on availability of resource and who can be the quickest to respond.

The proposed new road via Nukumarū Station road would add on a further 7.4km to any emergency response vehicle from Waverley, Patea or Hawera. The distance from Whanganui would be shorter via the proposed road.

In speaking to Alan Hickford from the Waverley Fire Brigade (18<sup>th</sup> January 2017), he considers having good reliable access to Waiinu Beach and surrounds is the most important aspect for all the emergency services. The extra kilometres that would be added by the proposed Nukumarū Station Road extension, from Waverley (Fire and Police) or Patea (Ambulance) will add on time, but that this extra time is outweighed by the new road and its reliability, particularly during civil defence emergencies such as a flood.

Overall, the proposed road via Nukumarū Station road would have positive effect on the emergency services covering the Waiinu area.

## 5.6 Timing and Mitigation

The main adverse social and economic effects arising the Nukumarū Station Road extension project are not directly associated with the extended road. Rather, they arise as a consequential effect from the future closing/removing of the Limeworks Bridge. The construction and operation of the new road via Nukumarū Station Road brings positive social and economic effects to the wider community, and many local people welcome its development. The construction and operation of the new Nukumarū Station Road Extension can commence in the short term. Meanwhile, STDC-Engineering Services are committed to keeping the Limeworks Bridge operational for as long as practicable. This means, as long as it is safe to use without major expenditure, and to extend the life of the bridge by allowing light vehicle and foot/stock traffic across it for as long as practicable. The Traffic Assessment Report explains in Section 3.2 that while both routes are operational there is likely to be an intermediate/transition period where vehicles to/from the south (Waiinu to Whanganui) use the Nukumarū Station Road Extension. Whereas those travelling north to Waitotara, Waverley and Hawera would continue to use Waiinu Beach Road and the Limeworks Bridge.

This transition period would give the community time to adjust to the changed local road network. Further, if and when a flood event on the Waitotara River damages the Limeworks Bridge and/or sections of Waiinu Beach Road so they are impassable, then Nukumarū Station Road can be operating and security of access maintained and relied upon. Managing the potential closure of the Limeworks Bridge will be an important mitigating factor, whereby STDC – Engineering Services shall need to develop a planned closure programme and communication with the local community so people can prepare for closure. For example, restricting the use of heavy vehicles on the Limeworks Bridge may extend its period for remaining open following the opening of the Nukumarū Station Road extension.

## 5.7 Conclusion

The reliability of the local access via Waiinu Beach Road and the Limeworks Bridge is uncertain due to its vulnerability to flood events. The proposed Nukumarū Station Road Extension project would provide a new secure and reliable road access. Ideally both routes would operate at the

same time, providing route choice depending on which is most convenient for individuals, and also time in which to plan for any potential bridge closure.

The above assessment identifies the different communities affected by the proposed new road (and potential closure of the Limeworks Bridge), and describes the likely social and economic impacts.

The Waitotara township is likely to experience reduced trade as a consequence of less through traffic in the town and access to less convenience spend. Yet, Waitotara also benefits at a broader economic level on the safe and reliable road access provided for by the Nukumarū Station Road Extension project particularly in respect of providing residents access to the main employer in the local area.

The Waiinu Beach community, Silver Fern Farms, other rural businesses, landowners and residents south of the Limeworks Bridge benefit from a secure local road that connects them to State Highway 3. Additionally, the support of the operations at Silver Fern Farms safeguards a fundamental component of the local economy<sup>6</sup> which has broader economic benefits for the Waiinu, Waitotara, Waverley, Hawera and Whanganui communities.

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<sup>6</sup> Section 5, Property Economics, Waitotara & Waiinu Beach Access Realignment Economic Impact Review, March 2017



# Appendix 1: Waitotara & Waiinu Beach Access Realignment Economic Impact Review, Property Economics, dated March 2017

# PROPERTY **E**CONOMICS



## **WAITOTARA & WAIINU BEACH ACCESS REALIGNMENT ECONOMIC IMPACT REVIEW**

**Project No:** 51642

**Date:** March 2017

**Client:** South Taranaki District  
Council

## SCHEDULE

Code	Date	Information / Comments	Project Leader
51642.3	March 2017	Report	Phil Osborne

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## **1. INTRODUCTION**

Property Economics have been engaged by South Taranaki District Council to provide an economic impact review on the local communities of Waitotara and Waiinu Beach in relation to the proposed extension of Nukumara Station Road and the closure of the Lime Works Bridge.

Currently, traffic turns off SH3 at Waitotara and passes through the town to access Waiinu Beach, Silver Fern Farms and Richard Alexander Quarry. The proposed extension of Nukumara Station Road would create a new connection to SH3, and with the Lime Works Bridge closed, would be the only access towards the coast. Although Waitotara township would retain the business of the township, losing the through-traffic would have a significant economic impact. This report will examine those potential impacts on the different parties within this area and determine a net economic position.

### **1.1. KEY RESEARCH OBJECTIVES**

The main objectives of the research and analysis is to:

1. Estimated economic costs / benefits in terms of increased/decreased travel times
2. Estimated economic costs to the Waitotara town in terms of reduced patronage and spend as well as any other reduction in commercial profile
3. Estimated value for improved efficiency and certainty for commercial activity with specific reference to Silver Fern Farm operations.
4. Expected local net economic position

### **1.2. INFORMATION & DATA SOURCES**

Information has been obtained from a variety of data sources and publications available to Property Economics, including:

- Census Population Data – Statistics NZ
- Business Frame Data – Statistics NZ
- Retail Expenditure Model – Property Economics
- Proposed Roothing Layout – South Taranaki District Council

## 2. EXISTING ECONOMIC ENVIRONMENT

### 2.1. WAITOTARA TOWNSHIP

Waitotara township is approximately thirty minutes' drive north-west of Whanganui on State Highway 3 (SH3). It is in a floodplain at the bottom of a valley and the Waitotara River runs along its eastern side.

The township is the gateway to Waiinu Beach and the Silver Fern Farms abattoir, so benefits from considerable through traffic, with around 19% heavy vehicles. Unfortunately, the combination of geography has been the cause of severe flooding through the township historically and currently, most recently in 2015 when the whole town was evacuated.

There is a strong sense of community and, despite the flooding, residents are keen to stay so long as their homes are inhabitable. Unfortunately, four homes were found to be no longer fit for living following the latest flood.

The township's population at last census (2013) was 70 in 31 households; 3 more than 2006, but had dropped 35 from 2001. This is likely to be a result of the extreme flooding in 2004 when many homes and the original store were badly damaged (at which point the local sustainable spend was estimated to be in the order of 25% higher). The wider Waitotara area is home to an additional 249 residents in 102 homes, see Appendix 1.

TABLE 1: WAITOTARA POPULATION

Waitotara	2001	2006	2013	2016	2018
Population	105	67	70	64	60
Households	46	30	31	29	27
Household Size	2.27	2.26	2.27	2.24	2.21
Population Growth (p.a.)		-8.64%	-5.63%	-3.04%	-3.04%
Household Growth (p.a.)		-8.50%	-5.61%	-2.55%	-2.55%

Source: Property Economics

There is minimal business activity within the immediate local Waitotara area as indicated by Table 2 which outlines the changes to employment in the catchment.

TABLE 2: WAITOTARA EMPLOYMENT COMPOSITION (EC – EMPLOYEE COUNT)

	2000	2006	2008	2014
A Agriculture, Forestry and Fishing	12	0	0	0
B Mining	0	0	0	0
C Manufacturing	0	0	0	0
D Electricity, Gas, Water and Waste Services	0	0	0	0
E Construction	0	0	0	0
F Wholesale Trade	0	0	0	0
G Retail Trade	3	0	0	0
H Accommodation and Food Services	3	3	3	3
I Transport, Postal and Warehousing	3	0	0	0
J Information Media and Telecommunications	0	0	0	0
K Financial and Insurance Services	0	0	0	0
L Rental, Hiring and Real Estate Services	0	0	0	0
M Professional, Scientific and Technical Services	0	0	0	0
N Administrative and Support Services	0	0	0	0
O Public Administration and Safety	0	0	0	0
P Education and Training	12	3	3	6
Q Health Care and Social Assistance	0	0	0	0
R Arts and Recreation Services	0	0	0	0
S Other Services	0	0	0	0
<b>Total All Industries</b>	<b>33</b>	<b>6</b>	<b>6</b>	<b>9</b>

Source: Property Economics

## CURRENT RETAIL AND HOSPITALITY ACTIVITY

There is no town centre as such due to its particularly small size; there is just the one store which is part of the hotel and pub building. This sits on the main street approximately 200 metres off SH3. Due to this distance, most of its patrons are residents or employees who turn off at Waitotara to get to the Silver Fern Farms abattoir. Beachgoers and Waiinu residents also turn off SH3 here.

Annual retail spend generated by Waitotara residents is estimated at approximately \$315,000. This spend is spread across the resident's local shopping destinations, particularly those near work, including Whanganui, Hawera and Waverley. The convenience spend portion of this would be approximately \$28,000.

TABLE 3: WAITOTARA ANNUAL RETAIL SPEND

TOTAL RETAIL SPEND (\$M)				
	2013	2016	2018	2023
Food retailing	0.122	0.118	0.116	0.123
Clothing, footwear and personal accessories retailing	0.020	0.020	0.019	0.020
Furniture, floor coverings, houseware and textile goods retailing	0.013	0.012	0.012	0.013
Electrical and electronic goods retailing	0.017	0.016	0.016	0.017
Hardware, building and garden supplies retailing	0.036	0.035	0.034	0.036
Pharmaceutical and personal care goods retailing	0.012	0.012	0.011	0.012
Department stores	0.025	0.024	0.024	0.025
Recreational goods retailing	0.013	0.012	0.012	0.013
Other goods retailing	0.018	0.017	0.017	0.018
Food and beverage services	0.049	0.048	0.047	0.050
<b>Total</b>	<b>0.324</b>	<b>0.315</b>	<b>0.309</b>	<b>0.327</b>
<b>Convenience Spend (17%)</b>	<b>0.029</b>	<b>0.028</b>	<b>0.028</b>	<b>0.029</b>

Source: Property Economics

## 2.2. WAIINU BEACH

Waiinu Beach is the small coastal area directly south of Waitotara. This area includes the community located on the coast as well as the Silver Fern Farms Abattoir and the Richard Alexander Quarry.

TABLE 4: WAIINU BEACH POPULATION

Waiinu Beach	2001	2006	2013	2016	2018
Population	75	97	75	75	75
Households	35	46	35	36	36
Household Size	2.12	2.12	2.12	2.08	2.06
Population Growth (p.a.)		5.25%	0.00%	0.00%	0.00%
Household Growth (p.a.)		5.25%	0.00%	0.50%	0.50%

Source: Property Economics

TABLE 5: WAIINU EMPLOYMENT COMPOSITION

Waiinu Beach	2000	2006	2008	2014
A Agriculture, Forestry and Fishing	0	0	0	9
B Mining	0	0	0	0
C Manufacturing	290	390	150	280
D Electricity, Gas, Water and Waste Services	0	0	0	0
E Construction	0	9	9	3
F Wholesale Trade	0	0	0	0
G Retail Trade	0	0	0	0
H Accommodation and Food Services	0	0	0	0
I Transport, Postal and Warehousing	0	0	0	0
J Information Media and Telecommunications	0	0	0	0
K Financial and Insurance Services	0	0	0	0
L Rental, Hiring and Real Estate Services	0	0	0	0
M Professional, Scientific and Technical Services	0	0	0	0
N Administrative and Support Services	0	0	0	0
O Public Administration and Safety	18	18	9	9
P Education and Training	0	0	0	0
Q Health Care and Social Assistance	0	0	0	0
R Arts and Recreation Services	0	0	0	0
S Other Services	0	0	0	0
<b>Total All Industries</b>	<b>308</b>	<b>417</b>	<b>168</b>	<b>301</b>

Source: Property Economics

### Waiinu Beach Community

Waiinu Beach is a popular spot for swimming and camping and was home to 75 residents at last census. The population peaked in 2006 with 97, which had grown from 75 in 2001. There are 85 homes, however, only half are permanently occupied with the remainder being holiday homes, mostly belonging to Whanganui residents. As such, the size and potential spend of the settlement fluctuates considerably over summer.

The settlement has no shops, so the retail expenditure generated is spent out of the area, some at the closest shop in Waitotara, and most near work locations including Whanganui.

Property Economics notes the Population used in Calibre report states “85 homes (or an estimated 200 residents)”. This may include peak summer visitors pg. 1 of their report – Appendix A of the STDC Business Case.

### Silver Fern Farms Abattoir

This plant is located approximately halfway between Waitotara township and Waiinu Beach. It employs around 350 staff, approximately 85% of which are Whanganui-based residents, which work in two shifts (5:50am to 4:35pm and 5pm to 3am<sup>1</sup>). Peak processing season is November to March with closure each June.

<sup>1</sup> Boffa Miskell Report Page 5

This business is the area's largest employer and generates approximately \$400,000 per week in local revenue. This in turn, generates meaningful retail spend potential and greatly bolsters the area's expenditure.

### Richard Alexander Quarry

The limestone quarry is located approximately 1km north-west of the Waiinu settlement and approximately 6.5km south of Waitotara township. It provides for a variety of local industries. It has only 3 staff and, having run for around 30 years, has a limited productive timeframe.

## 2.3. CURRENT RETAIL AND HOSPITALITY ACTIVITY

There are no stores in the area so this annual spend will primarily find its way out of the area to major centres. The considerable volume of employees of Silver Fern Farms dwarfs the local resident spending, their portion is likely to be spent primarily in Whanganui where approximately 85% of their staff reside. They would also spend a considerable amount at the onsite cafeteria. The table below outlines the spend associated with both the residents and the employee spend that would typically locate in association with the business.

The level of local convenience spend is significantly higher (\$275,000) than that found in Waitotara and even with the local cafeteria it is likely to be a significant source of sales for the Waitotara store. Changes in the roading network that impact this source of revenue are likely to have significant impacts on the overall sales of the Waitotara store.

TABLE 6: WAIINU BEACH ANNUAL RETAIL SPEND

TOTAL RETAIL SPEND	2013	2016	2018	2023
Food retailing	1.036	1.103	1.151	1.254
Clothing, footwear and personal accessories retailing	0.171	0.182	0.190	0.207
Furniture, floor coverings, houseware and textile goods retailing	0.108	0.115	0.120	0.130
Electrical and electronic goods retailing	0.143	0.153	0.159	0.173
Hardware, building and garden supplies retailing	0.303	0.323	0.337	0.367
Pharmaceutical and personal care goods retailing	0.102	0.109	0.113	0.123
Department stores	0.213	0.227	0.236	0.257
Recreational goods retailing	0.108	0.115	0.120	0.130
Other goods retailing	0.153	0.163	0.170	0.185
Food and beverage services	0.419	0.446	0.465	0.507
<b>Total</b>	<b>2.755</b>	<b>2.934</b>	<b>3.060</b>	<b>3.335</b>
<b>Convenience Spend (17%)</b>	<b>0.247</b>	<b>0.263</b>	<b>0.275</b>	<b>0.299</b>

Source: Property Economics

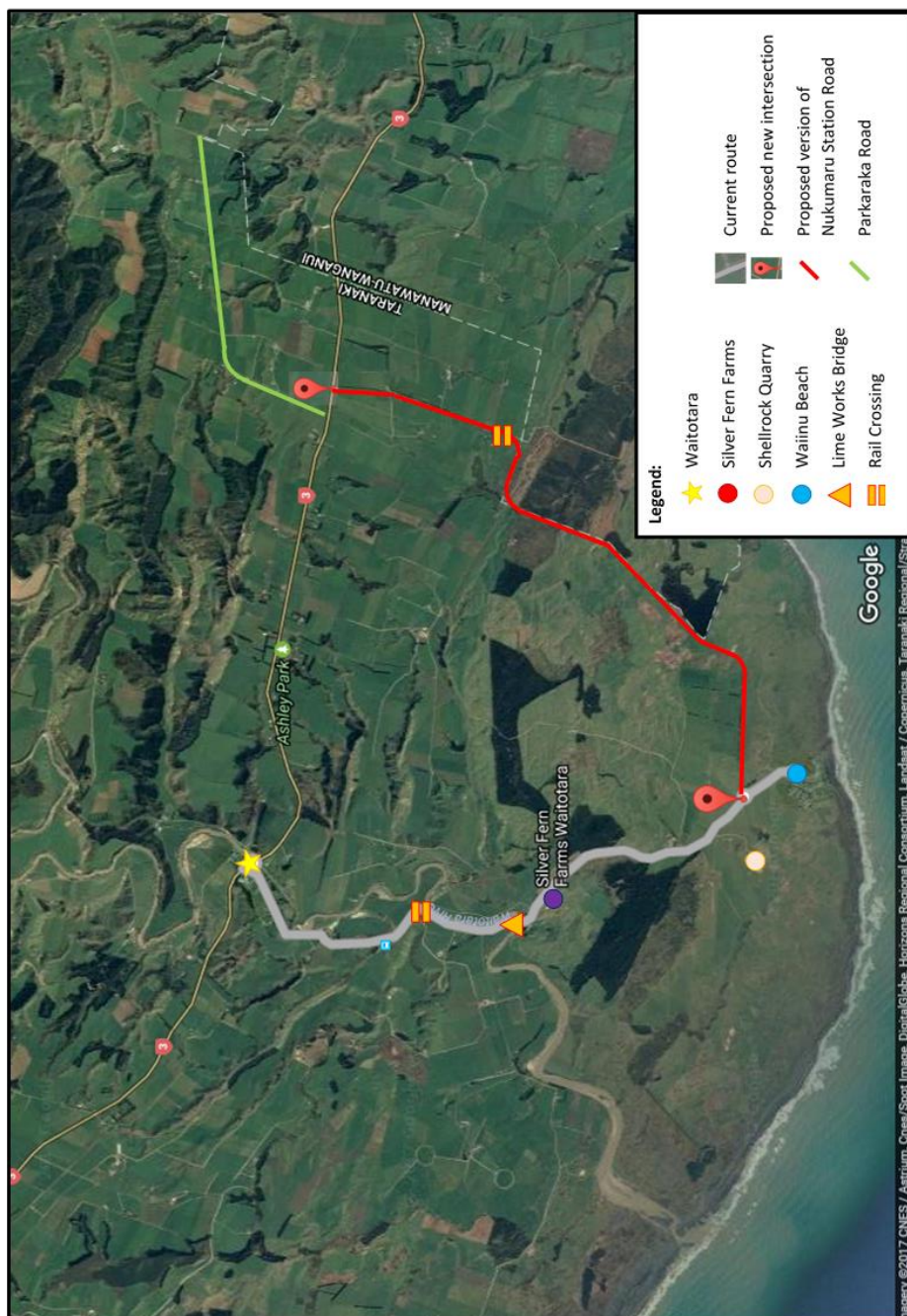


### 3. EXPECTED CHANGES

The Lime Works bridge is unreliable which represents a significant risk to residents and the commercial establishments, particularly Silver Fern Farms and Richard Alexander Quarry.

As illustrated below, the proposed changes include extension and modification of the existing Nukumaru Station Road to provide an alternate and reliable route, negating the reliance on the Lime Works bridge. This alternate route will however remove the through traffic that Waitotara township currently enjoys.

FIGURE 1: PROPOSED ROADING CHANGES



## 4. POTENTIAL ECONOMIC IMPACTS RESULTING FROM CHANGE

The proposed new roading layout is likely to result in both economic costs and benefits. This section of the assessment outlines these potential impacts and where pertinent quantifies their relative weights.

There are several impacts of the new roading layout that will have economic impacts. These include:

- Changes in travel times
- Changes to the reliability and safety of access
- Changes in commercial profile
- Changes in overall accessibility

These changes are likely to impact different parties in dissimilar ways with some parties being negatively impacted while others benefit.

The proposed roading changes will have various impacts upon the local settlements and businesses.

The primary positive impacts are:

- A reliable and safe roadway for Waiinu Beach residents and businesses
- Decreased travel times for Waiinu Beach to/from Whanganui
- Decreased travel times for Silver Fern Farm staff and truck drivers to/from Whanganui
- Decreased travel times for Richard Alexander Quarry truck drivers to/from Whanganui

The primary negative impacts are:

- Loss of through-traffic and profile for the Waitotara store/hotel/pub
- Increased travel times for Waiinu Beach to/from Waitotara (closest store)
- Increased travel times for Silver Fern Farm staff and truck drivers to/from the north-west
- Increased travel times for Richard Alexander Quarry truck drivers to/from the north-west

Table 7 highlights the differences in travel times from various destinations under the current and proposed roading network.

TABLE 7: TRAVEL TIMES

Travel Times:	Volume*	Current		Proposed	
		km	min	km	min
Waiinu Beach – Waitotara	150	7.7	7	14.8	9
Waiinu Beach – Waverley	150	18.5	16	25.5	16
Waiinu Beach – Whanganui	150	41.7	36	42.6	36
Silver Fern Farms – Waitotara	330	4.3	6	17	14
Silver Fern Farms – Waverley	330	15	13	27.7	21
Silver Fern Farms – Whanganui	330	38.3	32	39.4	33

\*Leaving Waiinu/Silver Fern Farms. Approximate VPD during peak seasons.

#### 4.1. WAITOTARA COMMUNITY AND COMMERCIAL ACTIVITIES

The Waitotara store currently supplies convenience retail to local residents, visitors and business related parties (primarily Silver Fern Farms). The potential costs associated with the new roading network for this community centre around the impact on this store as well as additional drive times to Silver Fern Farms for Waitotara residents.

The expected impacts on store trade result from decreases in through-traffic customers for Silver Fern Farms, beach goers to Waiinu; and in convenience spend for residents at Waiinu.

Given the representative size of each of the markets and the proportional impact of diverting traffic from past the Waitotara township, it is expected that the anecdotal information provided by the store owner, of a 40% impact is reasonable to presume.

Given these changes to the roading network it is expected that the convenience store at Waitotara will be accommodated within a market that is in the order of 50% smaller with associated impacts on sales.

If the Waitotara store were to no longer remain viable the residents of Waitotara would more likely utilise Waverly or Wanganui for their convenience needs. This would not necessarily 'add' to travel but reduce the number of trips taken for these provisions.

The benefits that attribute to the Waitotara community are improved access to the south as well as more secured holiday traffic. These benefits result from an overall improved (primarily through reliability) access for the local residents through their local catchment as well as improved perception of reliable access for the wider community and visitors. While there are direct economic costs for the community associated with loss of access through the bridge being unpassable there are further costs associated with the ongoing perception of this loss. This in turn is likely to impact the economic efficiency and competitiveness of the Waitotara area.

#### **4.2. SILVER FERN FARMS ABATTOIR**

The operations of Silver Fern Farms is a key contributor to the local economy. It not only supports around 350 jobs locally but provides for the efficient operations of businesses both in support and those who provide inputs (cattle). The viability of these operations run a fine line with regard to feasibility. Stoppages due to the unreliability of the Lime Works Bridge are likely to play a key role in the longevity of these operations and the resulting economic contributions.

Indicative costs due to closure are estimated at \$60,000 per annum. However, the real risk is the closure due to reduced feasibility and certainty.

There are costs relating to these operations as employees and business movements face an increased travel distance of 3km.

#### **4.3. RICHARD ALEXANDER QUARRY**

Given the nominal level of employment movement relating to this business the costs and benefits are more likely to balance in the longer term (although this timeframe is tempered by the capacity existing in the quarry). The potential costs relating to this business are increased travel time to the market in the north-west, while the benefits are highlighted by decreased travel times to market in Whanganui.

#### **4.4. WAINU BEACH COMMUNITY**

This community is wholly reliant on access along the existing road with the inability to access this resulting in real issue with regard to isolation and an inability to meet basic needs.

The benefits to this community relate to reliable access as well as the potential for increased visitor numbers through this accessibility.

The costs to this community relate to the increased travel time to Waverly as well as the potential increase due to the lack of feasibility around the Waitotara store.

## 5. NET ECONOMIC POSITION

Repair or replacement of the Lime Works bridge has been deemed not practical, so a long-term, reliable alternative is required. The proposed extension and modification of Nukumarū Station Road is both practical and cost effective, and offers limited negative impacts on local communities and business.

As outlined above the impacts fall under 4 main issues:

- Changes in travel times
- Changes to the reliability and safety of access
- Changes in commercial profile
- Changes in overall accessibility

The additional travel time costs for primarily the Waiinu community and Silver Fern Farms are in the order of \$70,000 per annum (the vast majority of this falling on Silver Fern Farms). While the distance impacts for employees from Waitotara are the greatest, the volumes are minimal.

The benefits of increased safety have not been measured as part of this assessment but remain an important factor in the balance of impacts. The improved reliability for the business operations within the Waiinu Beach catchment are fundamental in terms of the community's economic well-being. Aside from the benefit to the Silver Fern Farms operations of approximately \$60,000 per annum the safeguarding of these operations is crucial to the local community for employment.

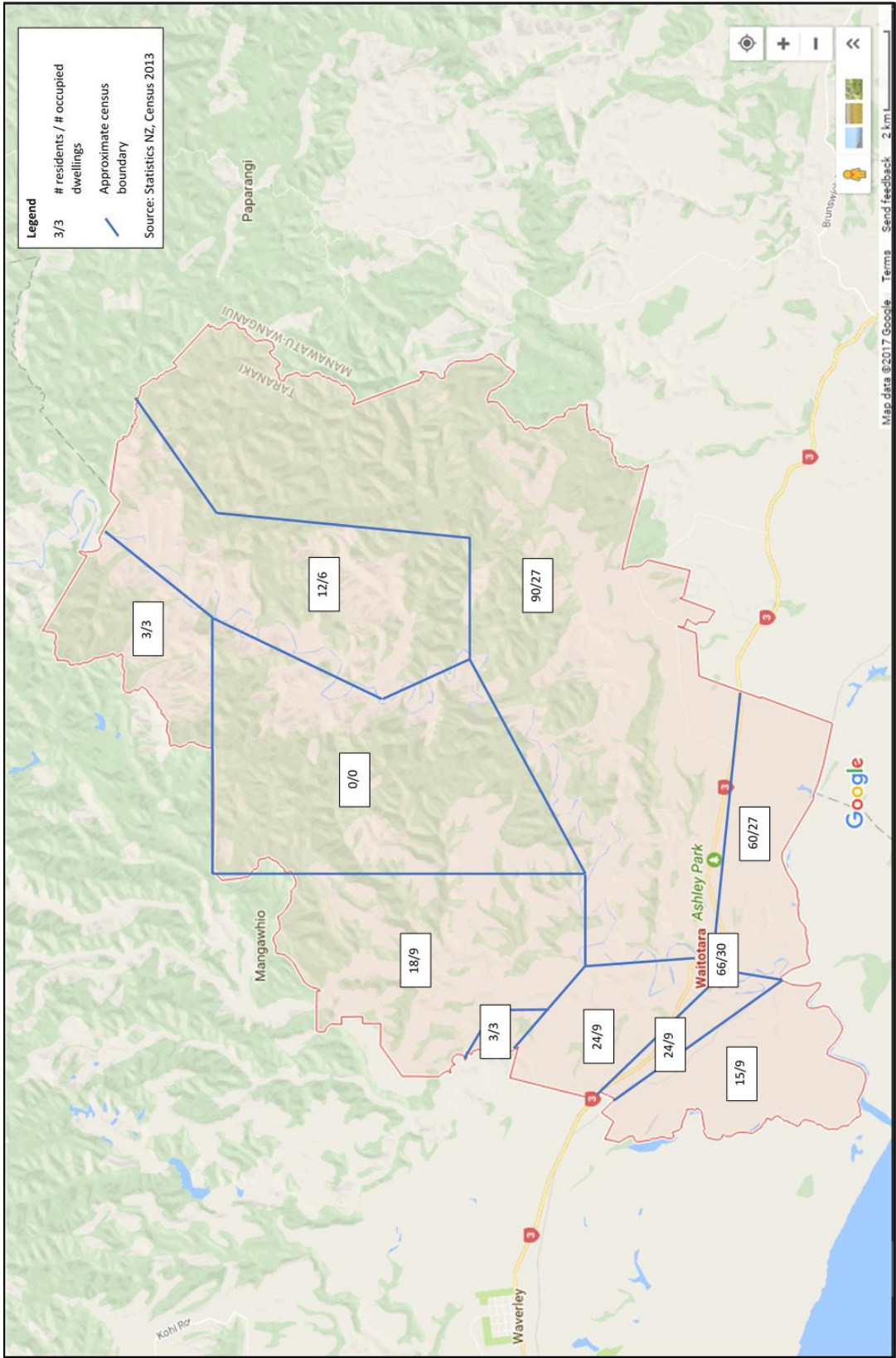
In terms of the improved reliability for Waiinu Beach residents, this is conservatively assessed at \$4,000 per annum with the potential for improved visitor numbers through increased reliability of access.

In terms of the direct local impacts the result of the new roading network is likely to result in minimal effects with increased travel time and decreased profile for Waitotara being offset against improved and reliable accessibility. Additionally, the support of the operations at Silver Fern Farms safeguards a fundamental component of the local economy. These costs and benefits are additional to any financial considerations with regard to the construction costs of the new road or the remediation costs associated with the Lime Works Bridge.

It is important to note, the Lime Works Bridge may continue to provide access for some time and therefore the negative impacts would be delayed or reduced, while the positive benefits would impact as soon as the proposed roading works have been completed. It is our position that these works should be carried out as soon as possible for the benefit of the local residents, businesses and tourists.



# APPENDIX 1: WAITOTARA POPULATION MAP – 2013 CENSUS



Source: Property Economics