

IS Kawerau – Industrial Land Background Study

1. Background

Kawerau is one of the youngest towns in New Zealand, having been founded in 1953 to cater to the Tasman Pulp and Paper mill. The location was selected as the site for the mill due to the ready availability of geothermal energy and water from the Tarawera River, and its close proximity to the large supply of radiata pine from the Kaingaroa forest. Having been carefully planned before construction, the town was built with a multinational workforce in mind due to the range of specialist skills needed to run and operate the mill, that were not then available in New Zealand.

Kawerau was purpose built for heavy industry and in this sense remains unique in the national landscape. With a land area of only 22 km², Kawerau is the smallest territorial authority in New Zealand. This land size and the fact the Kawerau District is itself enveloped by the neighbouring Whakatane District, demonstrate the purpose built nature of the town.

To this end, the Tasman mill complex continues to drive the local economy and is one of the largest employers in the Eastern Bay of Plenty. The mill complex is home to four separate manufacturing companies:

- Norske Skog Tasman (NST)
- Carter Holt Harvey Tasman (CHH)
- Carter Holt Harvey Woodproducts NZ (CHHWP)
- SCA Hygiene Australasia (SCA HA)

Combined, these companies are reported to contribute more than \$1 billion per annum to the New Zealand economy [1]. The combination of Kawerau's purpose built nature, enabling regulatory environment, availability of geothermal energy and other natural resources, and its direct rail link to the Port of Tauranga, make Kawerau the industrial powerhouse of New Zealand's central North Island.

2. Current capacity and activities

Industrial land within the Kawerau District is situated to the north east of the Kawerau Township. Land currently zoned for industrial purposes totals 222 hectares [2] and is comprised:

- 172 hectares for heavy industrial activity
- 50 hectares for light industry, manufacturing and value added enterprise [3].

2.1 Heavy industrial zone

The heavy industrial zone is specific to the Tasman mill complex. Sitting on top of the Kawerau geothermal field, industrial companies within the complex have access to an ample and expanding geothermal supply for both electricity and direct heat use. As a facility purpose built for log processing and value added manufacturing, a direct rail link to the Port of Tauranga runs through the middle of the site, providing efficient transport for export goods. This mix of resources and pre-planned development has created a unique business environment, making Kawerau the logical location for sustainable industrial development.

As stated above, four manufacturing companies operate within the mill complex (see Figure 1) and own the majority of the land from which they operate. Details are as follows: [4]

- **NST** – Newsprint and directory paper milling and manufacture. Owns approximately 118 hectares of industrial zoned land within the site, and further land in the surrounds.
- **CHH** – Pulp milling and manufacture. Owns approximately 39 hectares of industrial zoned land. Includes land for CHHWP operations.

- **SCA HA** – Tissue, base paper and hygiene product manufacture. Owns approximately 14 hectares of industrial zoned land.

All companies own additional parcels of land, but these are zoned for other uses. NST owns almost 70% of the industrial zoned land within the complex and utilises the majority for its core business. However, beyond the core processing and manufacturing components of the four industrial businesses, land is also used for:

- Materials preparation for the wood fibre to be utilised in various industrial processes.
- Log storage to ensure availability of raw materials.
- Clarifier waste treatment for treating a portion of the companies' combined waste.
- Geothermal energy generation, with multiple generators sited within the mill complex. The most notable being Mighty River Power's (MRP) 106 MW plant. This sits on land owned by NST, previously used as a grass airstrip. MRP's access to use this land was part of a commercial deal struck between NST and MRP in order to construct MRP's plant.
- Cooling ponds for discharged geothermal brine. These ponds cool used brine to 85 °C, a temperature at which the brine may be added to the Tarawera River, and relate to the disposal of brine from the first geothermal plants to tap the Kawerau field. Modern plants now re-inject used brine back underground, into the geothermal field.



Figure 1: Aerial view of the Tasman mill complex

2.2 Light industrial zone

Approximately half of the remaining 50 hectares of industrial land is located directly opposite the mill complex, to the south. This land was developed through two industrial parks, with both catering to light industrial use:

- The Kawerau Enterprise Agency (KEA) Industrial Park – comprising approximately 3.6 hectares.
- The Manukorihi Industrial Park – comprising approximately 21 hectares. Individual parcels are now owned by private investors or operating companies.

KEA was established in 1985, with its purpose being to ensure Kawerau remains a sustainable community by developing and maintaining robust economic and social structures in the town [5]. KEA is self funding, with revenue coming from the rental of commercial and industrial premises, as

well as the sale of industrial land. To this end, MRP acquired five of the KEA Industrial Park's eight lots when readying itself for the development of its 106 MW power station.

Land within the two industrial parks (see Figure 2) is used for the following purposes:

- Engineering products – sales, maintenance and servicing
- Training and education
- Heavy engineering – fabrication, refurbishment and onsite maintenance and servicing
- Light and electrical engineering
- Recycling – catering to waste from industry
- Sawmilling – Sequal Lumber operates a mill producing dimensional lumber for both domestic and export markets

Much of the activity within the lighter industrial area caters to servicing the mill complex. Kawerau is home to several world-class engineering companies, which have gained invaluable experience and expertise through decades of ensuring the machinery within the mill complex remains operational.



Figure 2: KEA and Manukorihi industrial parks

A further 25.5 hectares of land lying directly opposite the mill complex, to the east, is zoned for industrial use under the Operative Kawerau District Plan [1]. This applies to a corridor of land approximately 100 metres wide, which runs adjacent to State Highway 34 (SH34) [1]. This land however, is not currently used for industrial purposes and because of its long, thin shape it is not considered to be a desirable proposition for development [1].

3. Current utilisation and availability

Of the land zoned for industrial use there is limited vacancy beyond the 25.5 hectare undeveloped plot, offering a relatively small buffer of industrial land availability. Kawerau was built on and remains suited to heavy industry, with applicable businesses typically requiring large tracts of land from which to run their operations [2].

Although the mill complex houses a range of current businesses, there are a number of pockets of unutilised or under-utilised land suited to further heavy industrial activity. NST, being the predominant landowner, has earmarked up to 30 hectares of land to be made available to third parties looking to establish industrial operations. These potential brown-field development sites are marked below in Figure 3.



Figure 3: Norske Skog Tasman, potential land for development [6]

As brown-field sites these offer operators the opportunity to take advantage of established land parcels already allocated to heavy industry, and which under the Operative Kawerau District Plan are designated 'Industrial 1' zoning, meaning there is no maximum height restriction among other enabling provisions [1]. In addition to this, potential lessees would benefit from the existing infrastructure and synergies of being located within an existing industrial complex. The individual sites, their potential available areas and approximate dimensions are detailed in Table 1.

Ref	Description	Dimension (m x m)	Area (m2)	Leased	Term	Expiry
A	Training Centre car park	60 x 60	3,600	N	-	
B	West side of Fletcher Ave	160 x 100	16,000	N	-	
C	East Bay Bark	550 x 70	38,500	Y	Annual	31/08/14
D	Onepu Workshops	90 x 90	8,090	Y	Monthly	
E	Number 4 Store		12,370	N	-	
F	Old Wood Prep & sawmill	50 x 160	8,000	N	-	
G	Materials Processing yard	230 x 120	27,600	Y	Annual	
H	Northern 1/2 of airfield		100,000	N	-	
I	Old Silica Plant compound	115 x 50	5,750	N	-	
J	Plateau Barks compost		60,000	Y	Annual	
K	Ex Industrial traders site		24,000	Y	Annual	

Table 1: Norske Skog Tasman, details of potential land for development [6]

In addition to land available for heavy industrial use, KEA has lots 6 and 7 of the KEA industrial park available for sale. The combined size of the lots is approximately 1 hectare and they are suited to light industrial use and/or engineering support.

4. Future expansion

The Kawerau District is unique in that it has a surplus of infrastructure capacity [7]. With a current population of around 7,000 people, the town has infrastructure in place to cater for a population of 15,000 [7]. In addition to this, the Kawerau District Council (KDC) is financially secure, carrying no debt, and offers an enabling regulatory environment geared towards heavy industry. KDC also sets funds aside under its operational procedure to fund future asset replacements [7].

With Kawerau being the hub for heavy industrial activity in the eastern Bay of Plenty, KDC is allocating further land for industrial use to help meet anticipated future demand within the region. In recent years Kawerau has seen a resurgence in geothermal energy projects, along with various upgrades to facilities within the mill complex. Upgrades have related to adopting geothermal stream for direct industrial use and opportunities to create cleaner and more efficient operations.

With an abundance of natural resources in the immediate and surrounding areas, Kawerau is the logical location to house further industrial operations – offering businesses the opportunity to adopt green principles and utilise renewable resources and geothermal energy. Opportunities include the manufacture of products such as bio-fuels, adding further value to wood fibre, or capturing and processing a range of waste streams to create new products.

To assist with the anticipated future demand, KDC and the neighbouring Whakatane District Council (WDC) agreed to transfer 164.4 hectares of rural land from the Whakatane District to Kawerau District (see Figure 4 – boundary extended from red line to blue line) [8]. The reason for the boundary adjustment was to facilitate the rezoning of an area of land to provide for future industrial development. This Reorganisation Scheme was approved by the Minister of Local Government and came into effect 9 March 2011. All land subject to the boundary change is owned by the Putauaki Trust, a Maori land owning entity related to the prominent local Ngati Awa Iwi.

KDC proposes to rezone a total area of 171 hectares of land located within the new district boundary [1]. Under this plan change approximately 113 hectares is to be rezoned 'Industrial' and a further 58 hectares 'Rural Lifestyle' [1]. As the land subject to this plan change is located within the Kawerau District, activities and development can be managed solely by KDC under a single district plan.

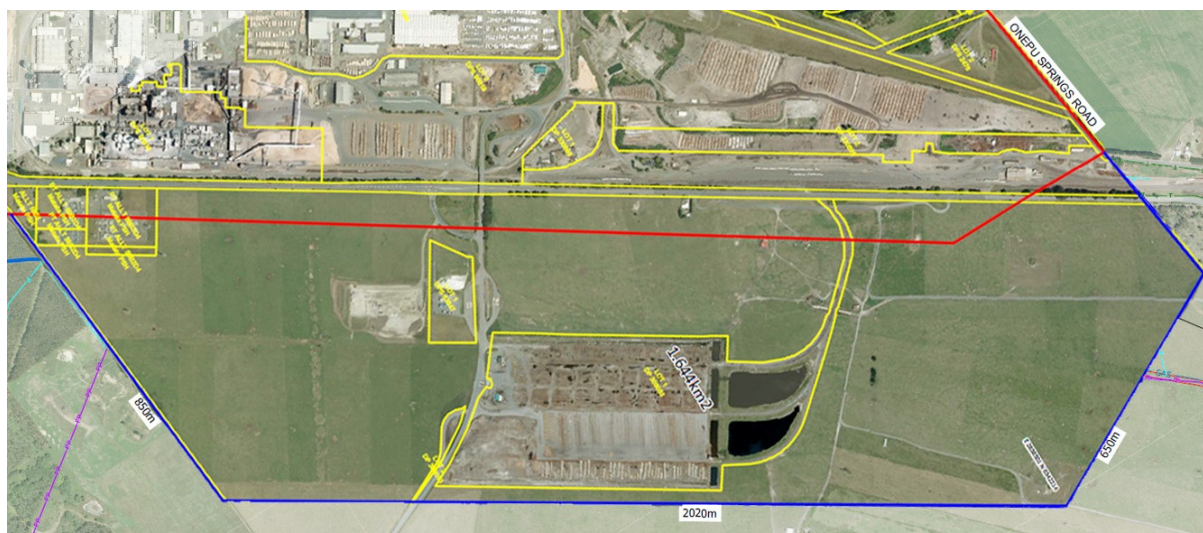


Figure 4: Kawerau District boundary extension [9]

The 25.5 hectares of vacant land currently zoned Industrial is subject to this plan change and can be identified in Figure 4 as the corridor running between the mill complex and the red line indicating the Kawerau District boundary prior to the plan change.

The main features of the plan change include: [1]

- Rezoning of 113 hectares of land as Industrial
- Rezoning of 58 hectares of land as Rural Lifestyle
- Establishing fixed points of access between SH34 and the Industrial zoned land
- Establishing a fixed future crossing place within the site over the existing rail siding which connects the mill complex with the 'super skid' logging yard
- Providing for the future extension of wastewater and water supply infrastructure by the Putauaki Trust to service future land use activities within the Industrial zone
- Establishing appropriate objectives, policies, rules and assessment criteria for future development within the Industrial and Rural Lifestyle zones.

5. Putauaki Trust Structure Plan

As the sole owner of land within the proposed new industrial zone, Putauaki Trust is creating a structure plan to be used as the guiding framework for development of the land. A range of specific standards are proposed for each area which will be reflected in new rules for the Industrial and Rural Lifestyle zones [1]. This will ensure the land is developed in an integrated, holistic and orderly manner, and in accordance with the Trust's commercial values. Figure 5 displays the proposed land changes and areas available for future development.

All land subject to the plan change will come under the structure plan - the key features being: [1]

- Defined access points to SH34 to provide access to all new activities within the new industrially zoned area. McKee Road will remain open to provide access to existing established activities, including the super skid, forestry interests to the east of the Plan Change land, and the mill complex (via the existing over bridge). All other access to and from SH34 will be restricted to the location of the access points defined on the structure plan.
- A defined level crossing location to provide access across the railway siding which serves the super skid site. This crossing will be an 'at grade' crossing controlled by a light and barrier system. All future development will take account of the maintenance of this connection.
- Establishment of a landscaped buffer area along the state highway frontage and along external boundaries of the structure plan site to maintain a high standard of visual amenity from outside of the structure plan area, particularly from SH34.

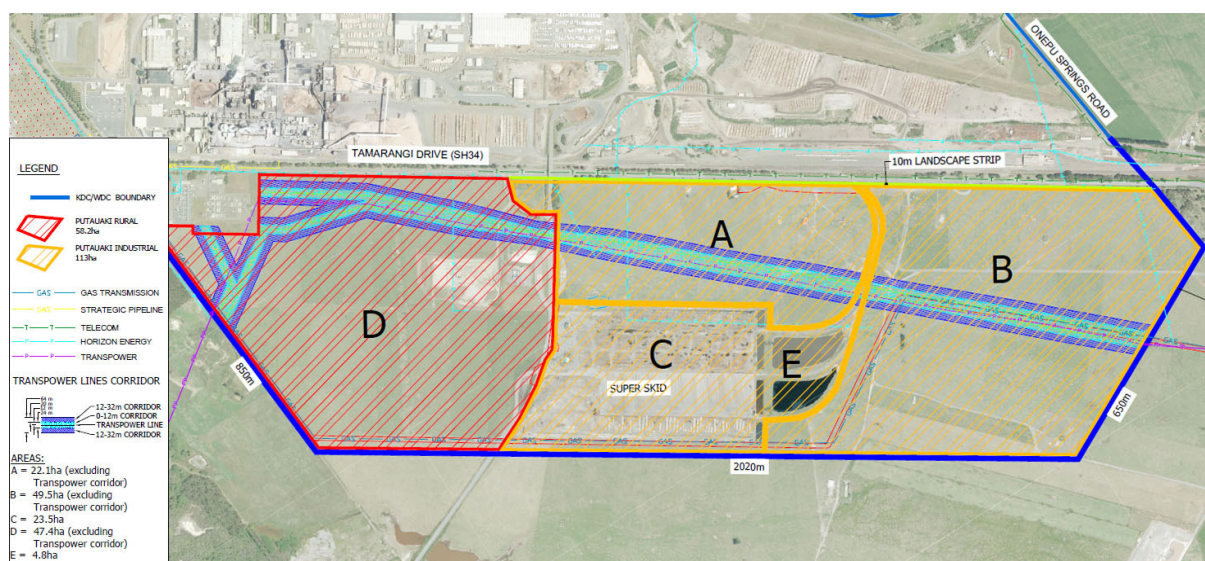


Figure 5: Kawerau District, proposed industrial land plan change [1]

KDC proposes to rezone areas A, B, C and E, as shown in Figure 5, to 'Industrial Area 3' [10]. This zone largely mirrors the provisions of 'Industrial Area 2' but contains some specific and important distinctions around consistency with the Putauaki Structure Plan. Further information on industrial zone rules and descriptions is available from KDC.

All access to areas A and B will be directly from the state highway. Access to area C, which is occupied by the 'super skid' log yard through a long term lease from Putauaki Trust, will remain unchanged via McKee Road.

Area D will be rezoned to Rural Lifestyle but with some important differences. These will only apply to this area and not other Rural Lifestyle zoned land in the Kawerau District. Dwellings will not be a permitted activity, but rural activities including log storage will be [10].

After allowing for the Transpower Lines Corridor, under which no development make take place, land available for use within each area is:

- Area A: 22.1 hectares
- Area B: 49.5 hectares
- Area C: 23.5 hectares
- Area D: 47.4 hectares
- Area E: 4.8 hectares

Area E is a provision for waste ponds from the super skid site and is tied in with area C. This leaves areas A and B, a total of 71.6 hectares, available for immediate industrial development. A little over 13 hectares of land is restricted from development due to the Transpower lines corridor. This is the distribution path for high voltage lines within New Zealand's electrical grid and as such must be free from encumbrance. A range of factors make the northern most area (areas A and B) suitable for future industrial development. These include its flat topography, availability of access to SH34 and the East Coast Main Trunk Railway (ECMT), and the ability for the land to be serviced with all necessary reticulated urban services [1].

While Putauaki Trust will apply for resource consents to establish both areas A and B, a staged approach will be used, developing area A first and allowing Putauaki Trust to: [11]

- Secure road access for the industrial subdivision from the outset of the development
- Gauge demand for land area
- Strategically plan the next stages of the industrial development

This staged approach, in keeping with the Putauaki Trust Structure Plan, will allow Putauaki Trust to assess demand and work with prospective tenants to better offer the characteristics desired for their particular operations. As a larger piece of land, area B also offers greater expansion capacity to be applied once demand has been assessed and development commenced on area A.

Referring back to Kawerau's infrastructure surplus, Putauaki Trust proposes to obtain water from KDC and also deliver wastewater back to KDC's waste water treatment facilities. Extensions to the existing reticulated mains will be required and will most likely come from Fletcher Avenue, which is the current closest location of the existing water mains [1]. Stormwater will be directed to ground on site as the land has strong soakage characteristics, making on-site soakage a feasible means of stormwater disposal [1].

6. Further infrastructure considerations

The ECMT is located to the west of SH34 and provides a direct service between the mill complex and the Port of Tauranga. There is also a rail siding which services the super skid site. This is located on

private land and passes under SH34 via an underpass beneath the state highway [1]. It is used approximately three times per day for the loading of processed logs.

In order to better utilise the rail infrastructure, Sequal Lumber has approached Putauaki Trust with a proposal to establish further rail sidings on the new industrial site. A further rail siding could potentially allow for direct connection between other applicable tenants and the Port of Tauranga. In addition to this, multiple additional rail sidings may provide further opportunity around hosting a logistics and distribution hub within the Kawerau District, servicing the eastern Bay of Plenty [10].

Kawerau District is focused on the attraction and retention of value added industries that seek to utilise forestry, renewable energy resources, its geographic location and other enablers as catalysts for creating a competitive advantage as an industrial location. The demand for what Kawerau can offer industrial businesses is a crucial consideration for having satisfactory reserves of land for industrial expansion. In simple terms the Kawerau economy, more so than most economies, will be driven by the provision of industrial land rather than the need to provide business land for expected growth [1].

As a pre-planned town with surplus infrastructure, the mix of newly zoned industrial land and maximisation of potential brown-field developments would not necessarily require substantial new hard infrastructure to be deployed in the Kawerau District. Rather, it may involve some realignment of planned hard infrastructure and increased open space [7]. New industry will allow Kawerau to grow into and fully utilise its infrastructure provisions, offering a cost effective and ready made solution for industrial businesses.

References:

- [1] Bloxam Burnett and Oliver Ltd, Putauaki Trust Land Rezoning, Kawerau. Plan Change to the Operative Kawerau District Plan. Prepared for Kawerau District Council, December 2011.
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- [6] Information pack provided by Norske Skog Tasman.
- [7] Business and Economic Research Limited (BERL) 'The State of Readiness of the BOP's Local Government Infrastructure for Growth' prepared for the Bay of Connections Governance Group, August 2011.
- [8] Whakatane Beacon, www.whakatanebeacon.co.nz/cms/news/2011/04/art10009135
- [9] Map of proposed Kawerau industrial boundary realignment. Whakatane District Council.
- [10] Putauaki Trust memorandum 'Putauaki Trust industrial subdivision project – Report 1', dated 18 January 2012.
- [11] Putauaki Trust memorandum 'Kawerau industrial plan change – Integrated traffic assessment', dated 16 January 2012.

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Disclaimer: This study was undertaken to provide interested parties with background information on industrial land as it relates to Kawerau and the Industrial Symbiosis Kawerau initiative. Such information is not intended to provide parties with all necessary details on which to base potential commercial decisions.

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