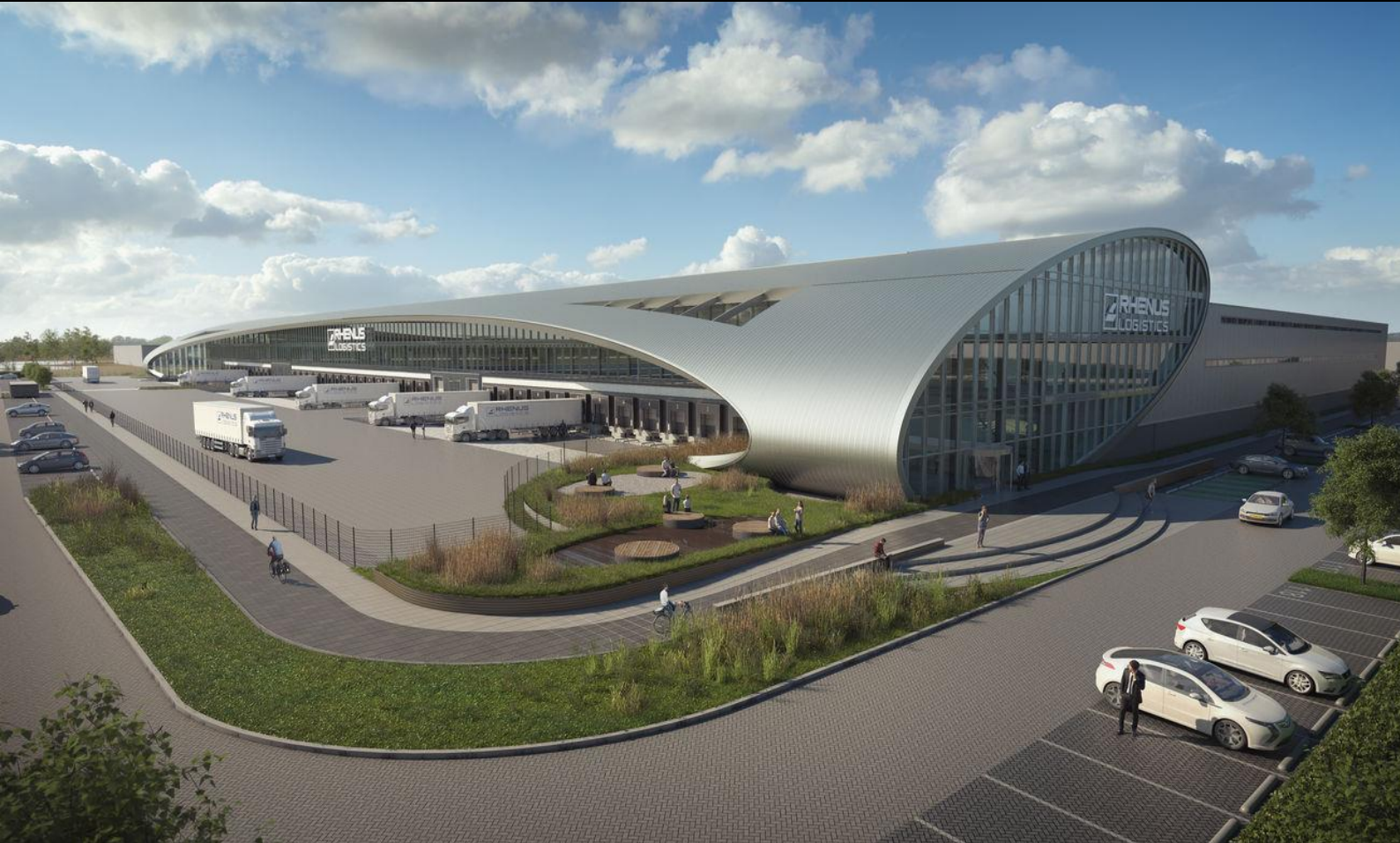


PROPERTY **E**CONOMICS



HORNBY QUADRANT

Project No: 52256

INDUSTRIAL PLAN CHANGE

Date: March 2023

ECONOMIC ASSESSMENT

Client: Calder Stewart

SCHEDULE

Code	Date	Information / Comments	Project Leader
52256.3	March 2023	Report	Tim Heath / Phil Osborne

DISCLAIMER

This document has been completed, and services rendered at the request of, and for the purposes of Calder Stewart only.

Property Economics has taken every care to ensure the correctness and reliability of all the information, forecasts and opinions contained in this report. All data utilised in this report has been obtained by what Property Economics consider to be credible sources, and Property Economics has no reason to doubt its accuracy.

Property Economics shall not be liable for any adverse consequences of the client's decisions made in reliance of any report by Property Economics. It is the responsibility of all parties acting on information contained in this report to make their own enquiries to verify correctness.

Front cover image credit: <https://www.weforum.org/agenda/2019/08/netherlands-greenbuilding-architecture-sustainability/>

COPYRIGHT

© 2023 Property Economics Limited. All rights reserved.

CONTACT DETAILS

Tim Heath

Mob: 021 557713

Email: tim@propertyeconomics.co.nz

Web: www.propertyeconomics.co.nz

TABLE OF CONTENTS

1. INTRODUCTION.....	5
1.1. KEY RESEARCH OBJECTIVES.....	5
1.2. INFORMATION & DATA SOURCES	6
1.3. COLLIERS 2023 INDUSTRIAL LAND REPORT	7
2. PROPOSED PLAN CHANGE	8
3. POPULATION AND HOUSEHOLD GROWTH	10
4. EXISTING INDUSTRIAL LAND SUPPLY AND PROJECTED DEMAND.....	12
4.1. EXISTING INDUSTRIAL ZONE LAND.....	12
4.2. DEMAND AND INDUSTRIAL GROWTH	16
5. KEY INDUSTRIAL SITE REQUIREMENTS	19
6. ECONOMIC COSTS AND BENEFITS.....	22
7. SUMMARY.....	24
APPENDIX 1: INDUSTRIAL BUSINESS CLASSIFICATIONS	25

TABLE OF CONTENTS

LIST OF TABLES

TABLE 1: VACANT INDUSTRIAL LAND PARCELS INCLUDING INFRASTRUCTURE CONSTRAINTS	13
TABLE 2: GREATER CHRISTCHURCH AREA INDUSTRIAL EMPLOYMENT BREAKDOWN	16
TABLE 3: GREATER CHRISTCHURCH INDUSTRIAL LAND SUFFICIENCY BY TERRITORIAL AUTHORITY	18

LIST OF FIGURES

FIGURE 1: IDENTIFIED PLAN CHANGE AREA AND EXISTING DISTRICT PLAN ZONINGS	8
FIGURE 2: MAP OF GREATER CHRISTCHURCH AREA	9
FIGURE 3: GREATER CHRISTCHURCH POPULATION AND HOUSEHOLD PROJECTIONS	10
FIGURE 4: CHRISTCHURCH CITY POPULATION AND HOUSEHOLD PROJECTIONS	11
FIGURE 5: SELWYN DISTRICT INDUSTRIAL LAND	13
FIGURE 6: WAIMAKARIRI DISTRICT INDUSTRIAL LAND	14
FIGURE 7: CHRISTCHURCH CITY INDUSTRIAL LAND	15
FIGURE 8: INDUSTRIAL EMPLOYMENT WITHIN GREATER CHRISTCHURCH BETWEEN 2000 AND 2022.....	17



1. INTRODUCTION

Property Economics has been engaged by Calder Stewart to undertake an economic assessment of a Proposed Plan Change (PPC) to rezone approximately 23ha of rural land to Heavy Industrial Zone (HIZ) in Hornby, Christchurch, under the Christchurch District Plan (CDP).

The subject land represents an extension of the existing HIZ within the same block of land. The applicant seeks to develop this land to achieve a more efficient use of the existing HIZ provision and support the growth of heavy industrial activities within the Christchurch market and to efficiently service the wider Canterbury Region.

This report assesses the industrial demand and supply parameters in the context of both Christchurch City and the wider region. It also reviews the current business capacity assessments to identify the role and position this land will perform in Christchurch's industrial land markets. Finally, this report identifies and discusses the economic costs and benefits and the site's locational attributes in the context of a well-functioning urban environment.

The economic assessment of this report will provide a robust foundation to assist Calder Stewart in determining the economic merits of the PPC from an economic perspective in the context of the RMA and CDP.

1.1. KEY RESEARCH OBJECTIVES

The core objectives of this economic research include:

- Determine the size of the current Greater Christchurch and Christchurch City population base, and forecast this out over the short-, medium- and long-term periods (3-, 10- and 30-year timeframes, respectively) using the Stats NZ Medium and High growth projections.

- Review relevant background material specifically around the proposal and the Greater Christchurch HBA¹, and discuss implications of growth on the industrial sector.
- Quantify and geospatially map the existing industrial land provision within the Greater Christchurch (and Christchurch City as a subset).
- At a high level assess the current level of vacancy in the existing industrial land provision and capacity to accommodate future industrial sector growth, particularly for large lot industrial activity across Greater Christchurch (and the Christchurch City subset).
- Quantify the future industrial land requirements of the Greater Christchurch (and Christchurch City subset) markets over the 3-, 10- and 30-year period based on the industrial sector projections in the HBA.
- Identify and assess the competitive nature of the proposed location against key industrial locational attributes highlighting the positive locational attributes of the block for industrial activity. This includes an assessment of surrounding land uses as factual site context and access to key transport links.
- Provide economic context for the suitability (potential economic costs and benefits) associated with subject land being rezoned for industrial activities, and economic efficiencies.
- Consider the proposal in the context of NPS-UD Policy 8 in respect of will the proposal assist a well-functioning urban environment and any economic opportunity costs associated with the land's rezoning out of sequence. This includes the ability for the infrastructure integration and efficiencies with adjacent / surrounding zones.

1.2. INFORMATION & DATA SOURCES

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

- Business Frame Data – Stats NZ
- Christchurch District Plan – Christchurch City Council
- Household and Population Projections – Stats NZ
- Household Economic Survey Data – Stats NZ
- Housing and Business Development Capacity Assessment 2018 – Greater Christchurch Partnership

¹ *Housing and Business Development Capacity Assessment 2018 – Greater Christchurch Partnership*

- NZ Census (2006, 2013 & 2018) – Stats NZ
- Operative Selwyn District Plan – Selwyn District Council
- Satellite Imagery – Google
- Operative Waimakariri District Plan – Waimakariri District Council
- Proposed Development – Calder Stewart
- Aerial Photography – Google Maps
- National Policy Statement on Urban Development 2020 - MBIE

1.3. COLLIERS 2023 INDUSTRIAL LAND REPORT

Property Economics has examined a Colliers' research report titled "*Christchurch Industrial Land Market*" (dated 17 February 2023), which investigated the amount of vacant industrial land in Greater Christchurch districts. This report was based on a different methodology when measuring vacant industrial land capacity to that utilised in the Greater Christchurch Partnership 2018 report relied on by Property Economics in this assessment. Each report in effect interprets vacant zoned land differently so variances in vacant industrial supply is an expected outcome.

The Colliers methodology considered industrial zoned land that is utilised for yard-based, storage or display activities as occupied irrespective of the level of building GFA on the site and corroborates this with an on the ground site-by-site verification. The Greater Christchurch 2018 HBA treated industrial zone land as vacant or vacant potential dependent on its redevelopment potential, verified through aerial photos and resource consents. Christchurch City Council, whose data informed the Christchurch City component of the Greater Christchurch 2018 HBA, considered industrial zoned sites with a building footprint less than 15% of the site area available for redevelopment.

Property Economics is comfortable with the approaches in both reports as the data in each is compiled for different purposes. The Greater Christchurch HBA is about informing zoned capacity potential over the short-, medium- and long term, while the Colliers report is trying to establish currently available industrial land. The Colliers' report also included new industrial zones post 2018 and sites recorded as vacant in 2018 but have been subsequently developed in the recent 5-year period.

Importantly, the findings of the Colliers 2023 Industrial Land report do not change the findings in this economic report and Property Economics support for the PPC.

2. PROPOSED PLAN CHANGE

Hornby is located geospatially on the south-western fringe of Christchurch, predominantly in between State Highways 1 and 76.

The following figure shows the location of the subject site proposed to be rezoned in context of the surrounding Industrial area. It shows that the subject site directly adjoins State Highway 1 (white line immediately north of the site) and Marshs Road on the southern side of the site.

FIGURE 1: IDENTIFIED PLAN CHANGE AREA AND EXISTING DISTRICT PLAN ZONINGS



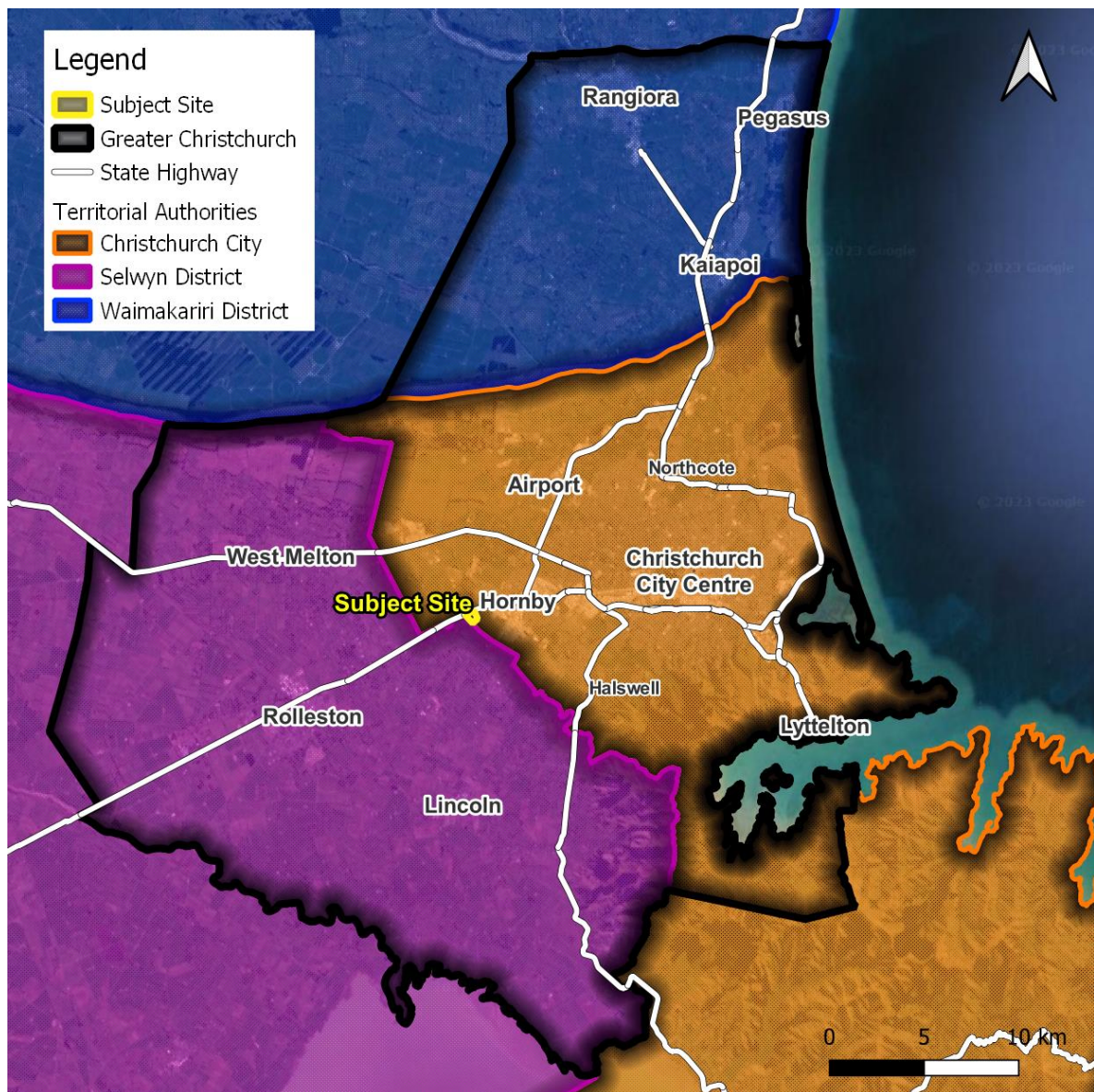
Source: CCC, Property Economics, Calder Stewart

The majority of the site itself is currently zoned Rural Urban Fringe in the CDP with a small Commercial Local centre on the north-western corner and a small community park on the north-east corner (Islington Reserve). Within the Rural Urban Fringe along the State Highway 1 boundary, and part of the Marshs Rd boundary, is a linear run of residential properties. The land to the South of the site is part of the Selwyn District and also has a rural zoning (i.e., Rural – Inner Plains).

For the purposes of this assessment, the focus is placed on the Greater Christchurch Area, the extent of which is shown on the figure below. The Greater Christchurch Area encompasses to the main urban centres of Christchurch City and surrounding townships in the Selwyn and Waimakariri District which together comprise the bulk of the wider Christchurch economic market for residential, commercial and industrial purposes.

The Greater Christchurch Area excludes most of the Bank's Peninsula and more rural Waimakariri and Selwyn areas which, although it is a part of subject territorial authorities have a very dispersed population, a rural rather than urban focus and is more remote than the neighbouring townships within the identified Greater Christchurch Area.

FIGURE 2: MAP OF GREATER CHRISTCHURCH AREA



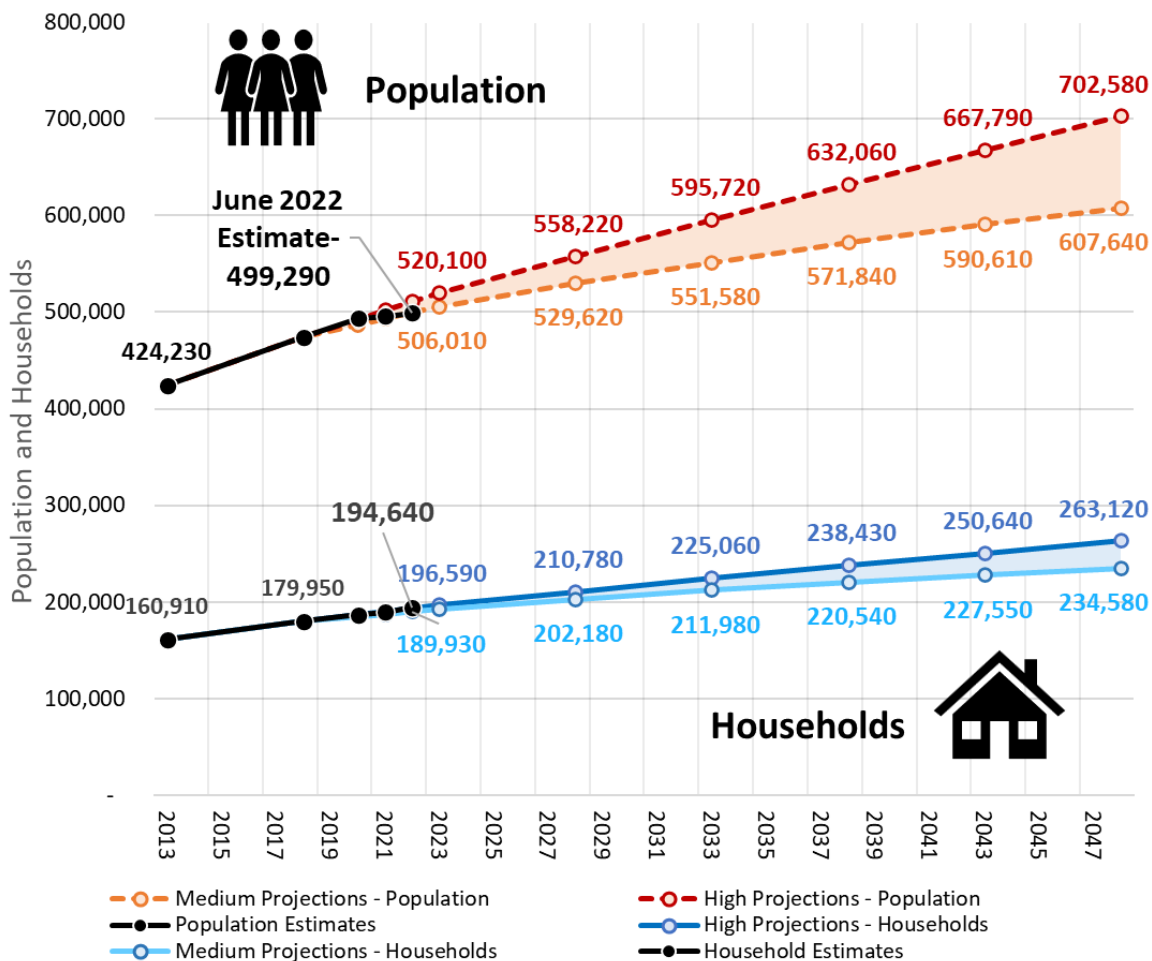
Source: Property Economics, Google Maps

3. POPULATION AND HOUSEHOLD GROWTH

A key driving factor in industrial land demand is population growth within its primary market. The figure below shows the population and household growth projections for the Greater Christchurch Area based on the latest estimates and projections (June 2021) sourced from Stats NZ.

As indicated in the following figure, the 2022 population estimate for the Greater Christchurch area is nearly 500,000 residents, or about 10% of New Zealand's population.

FIGURE 3: GREATER CHRISTCHURCH POPULATION AND HOUSEHOLD PROJECTIONS



Source: Stats NZ; Property Economics

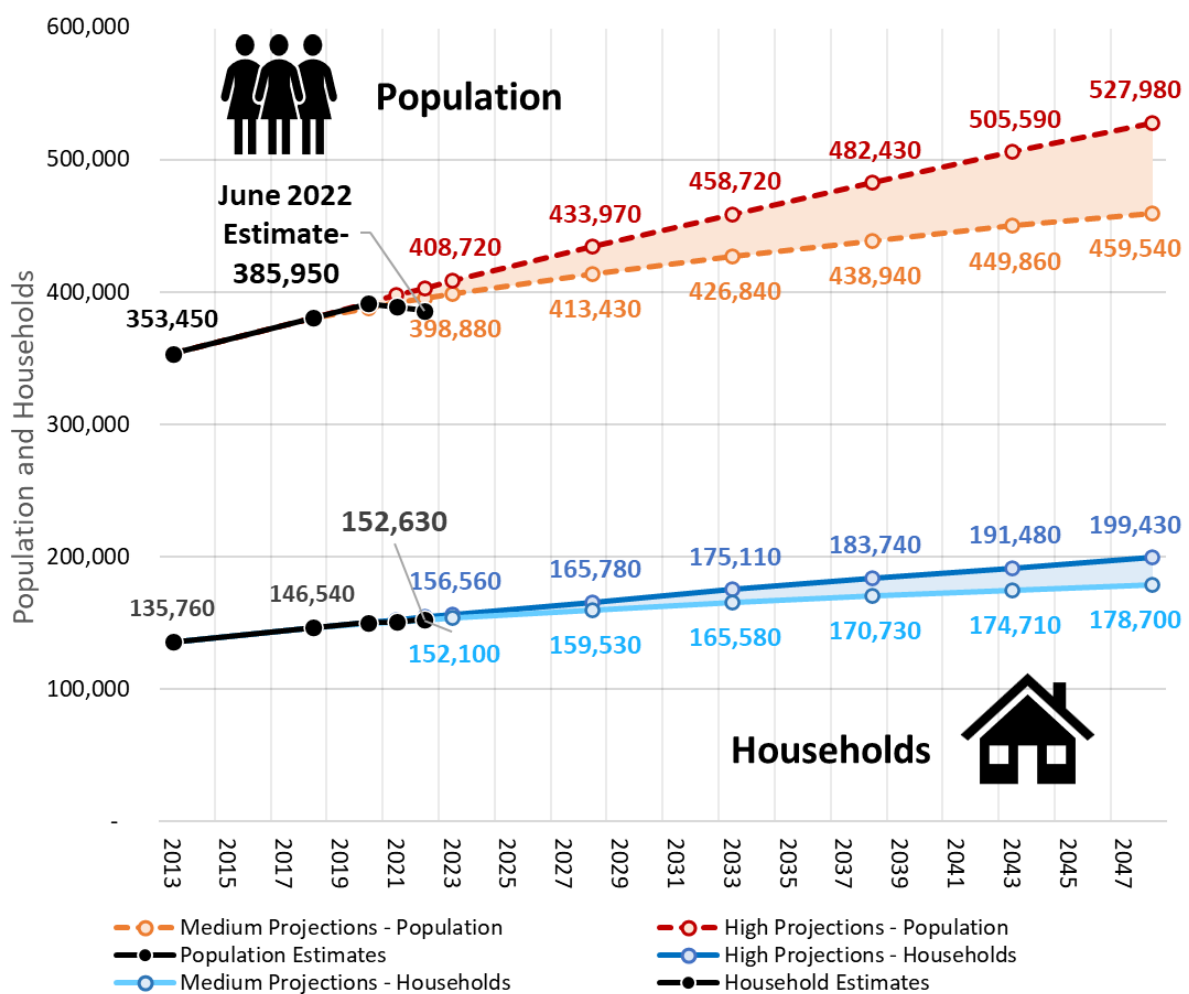
Although Christchurch experienced strong growth of 2.2% per annum between 2013 and 2020 during its earthquake recovery, the growth over the last couple of years has been slower at only 0.6% per annum. This aligns the growth rate closer to the Medium growth projection. However, it is not considered prudent to base a projection on just a couple of recent years. Taking a more appropriate 10-year reflection on growth means the projected growth for the Greater Christchurch market is likely to sit in between the Medium and High growth series.

Under the Medium projection, the Greater Christchurch population is anticipated to grow to around 608,000 residents by mid-century. This represents growth of almost 22% or an additional 108,000 residents.

The number of additional residents within the Greater Christchurch area is almost 100,000 more under the High Projection with growth of over 200,000 residents over the next 30-year period. This represents growth of 41% above the 2022 base, or an average annual growth rate of 1.32%.

The following shows the population and household projections specifically for Christchurch City, the territorial authority where the PPC is situated and a subset of the Greater Christchurch market. This shows that the falling population base within Christchurch City over the last couple of years is responsible for the growth slow-down across the Greater Christchurch market as a whole.

FIGURE 4: CHRISTCHURCH CITY POPULATION AND HOUSEHOLD PROJECTIONS



Source: Stats NZ; Property Economics

4. EXISTING INDUSTRIAL LAND SUPPLY AND PROJECTED DEMAND

This section outlines the existing supply of Industrial land within the Greater Christchurch Area against projected demand as outlined in the HBA.

Tier 1 Councils such as Christchurch are required by the National Policy Statement – Urban Development (**NPS-UD**) to publish a HBA every few years. This document outlines the balance of both supply and demand for Residential and Business Capacity within a territorial authority (or Greater Christchurch in this instance) and outlines pathways to ensuring the respective area can sufficiently accommodate projected growth over the short-, medium-, and long-term.

The last HBA undertaken for Christchurch was published in March 2018 making it almost five years old. Property Economics, therefore, examines the results of this capacity assessment and then at a high level assesses how this demand and supply balance may have changed over the last five years.

An updated assessment is expected to be published within the first quarter of this year (2023) and it may become relevant to update this section of the report during the plan change process, albeit the economic justification for the PPC is not reliant on the industrial land sufficiency proposition of either Christchurch City or Greater Christchurch.

4.1. EXISTING INDUSTRIAL ZONE LAND

The following three figures show the distribution of existing industrial zoned land within the Christchurch City, Selwyn and Waimakariri Districts.

In all cases, most of the industrial activity is centred around the State Highway network. There are several Heavy Industrial areas around Christchurch with Hornby having the largest concentration of HIZ land. In this regard, the subject site connects seamlessly with a well-established HIZ area and infrastructure.

The following table summaries the distribution of Vacant Industrial Land as assessed in the aforementioned 2018 HBA. This determines Christchurch City has plan enabled capacity for an additional 934ha of Industrial Activities, of which 226ha was constrained by infrastructure with no plans to provide the infrastructure by 2048. This leaves just over 700ha of vacant land available over the long term.

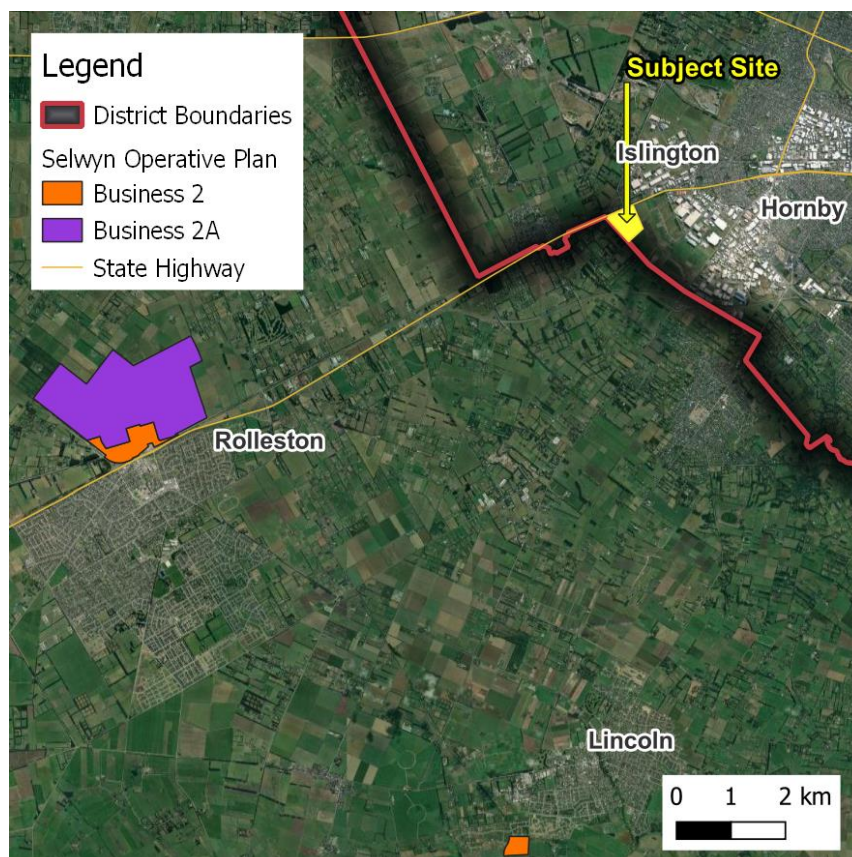
In Selwyn and Waimakariri there was a further 350ha of vacant industrial land with the potential for this to be as high as 433ha depending on different approaches to assessing capacity. None of this land was noted as being constrained by infrastructure. Most of this vacant land in Selwyn is in the Business 2A zone in Rolleston. This area is where the subject site will likely compete with in attracting businesses.

TABLE 1: VACANT INDUSTRIAL LAND PARCELS INCLUDING INFRASTRUCTURE CONSTRAINTS

Area	Short term 2018-2021	Medium term 2021-2028	Long term 2028-2048
Christchurch			
plan-enabled capacity	934	934	934
constraints	327	226	226
net serviced capacity	607	708	708
Selwyn			
plan-enabled capacity	245-272	245-272	245-272
constraints	14	0	0
net serviced capacity	231-258	245-272	245-272
Waimakariri			
plan-enabled capacity	109-161	109-161	109-161
constraints	0	0	0
net serviced capacity	109-161	109-161	109-161
Greater Christchurch			
plan-enabled capacity	1,288-1,367	1,288-1,367	1,288-1,367
constraints	341	226	226
net serviced capacity	947-1,026	1,062-1,141	1,062-1,141

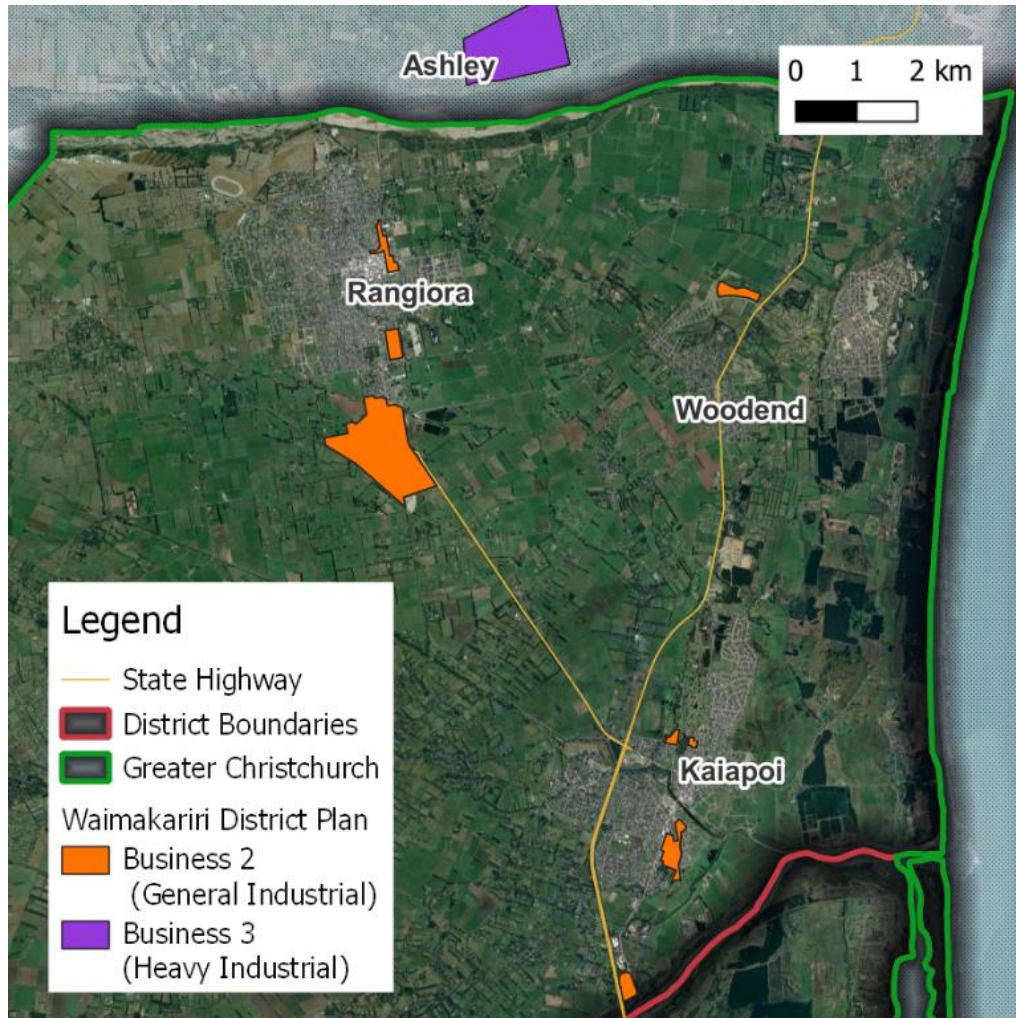
Source: Housing and Business Development Capacity Assessment March 2018 pg. 31

FIGURE 5: SELWYN DISTRICT INDUSTRIAL LAND



Source: Property Economics, CCC

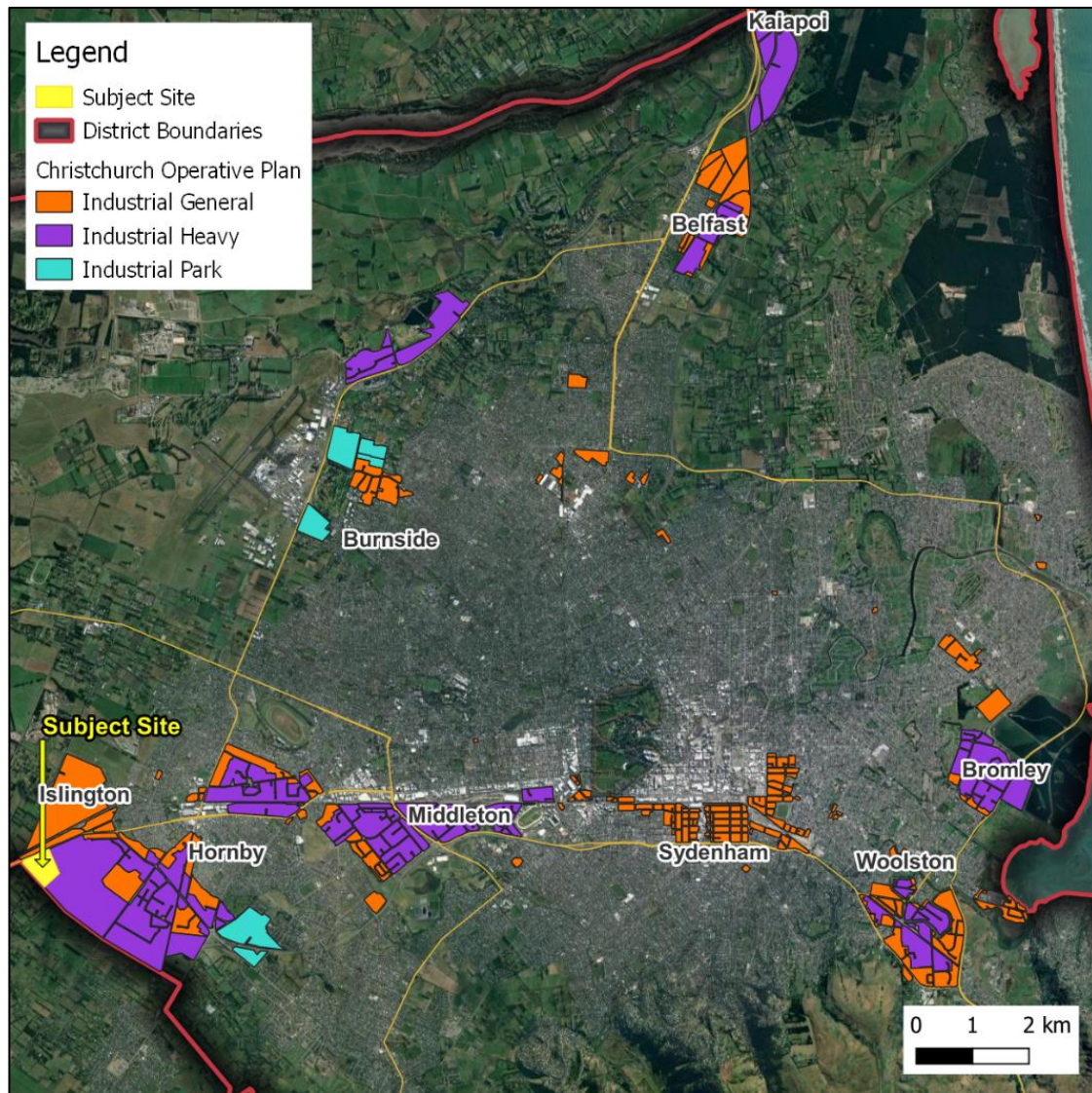
FIGURE 6: WAIMAKARIRI DISTRICT INDUSTRIAL LAND



Source: Property Economics, WDC

It is worth noting that Waimakariri has a large heavy industrial zone land provision just north of the Greater Christchurch boundary. This does not appear to be included in the Greater Christchurch figures but clearly would support the Greater Christchurch, and in particular Waimakariri, markets.

FIGURE 7: CHRISTCHURCH CITY INDUSTRIAL LAND



Source: Property Economics, CCC

Christchurch has the dominant provision of industrial zoned in Greater Christchurch and the majority of the vacant provision. This excludes the industrial provision that can be accommodated within the Christchurch International Airport Limited land holdings, which if included would boost Christchurch industrial land provision and dominance further.

It is clear to see the dominance of the HIZ in south-west Hornby and the limited amounts of residential activity around the area. This is a benefit for HIZ land as it mitigates against potential reverse sensitivity effects of HIZ activities on residential activity.

4.2. DEMAND AND INDUSTRIAL GROWTH

In order to better understand the recent growth in the industrial economy in Greater Christchurch and identify the likely future industrial land requirement, the following table and figure break down the Industrial Employment by District and sector within the Greater Christchurch area over the last 22 years based on ANZSIC06² categorisation system.

Note that a portion of “industrial” employees work within other more commercial (office) arms of a business, potentially in other locations, e.g., employees in the sales branch of electrical companies are coded in the Electricity, Gas, Water and Waste Services sector. Despite being in an industrial sector, these employees are technically not industrial employees for this analysis as they do not absorb industrial land or GFA. As such, Property Economics has proportioned each industrial sector according to employee type to better differentiate between employee types to better reflect the actual number of industrial employees. These ratios are shown in Appendix 1.

TABLE 2: GREATER CHRISTCHURCH AREA INDUSTRIAL EMPLOYMENT BREAKDOWN

ANZSIC Sector	2000	2008	2010	2018	2022	Nominal Growth	
						2000-2022	2018-2022
 A - Agriculture, Forestry and Fishing	278	296	282	352	377	99	25
 B - Mining	17	21	22	23	21	4	-2
 C - Manufacturing	29,428	29,960	26,552	25,781	25,305	-4,123	-476
 D - Electricity, Gas, Water and Waste Services	196	327	348	446	527	332	81
 E - Construction	7,892	14,115	11,983	25,568	25,307	17,415	-261
 F - Wholesale Trade	9,719	12,042	11,582	13,537	13,891	4,172	354
 I - Transport, Postal and Warehousing	11,303	10,979	9,520	10,947	8,948	-2,355	-1,999
 L - Rental, Hiring and Real Estate Services	1,081	1,485	1,363	1,763	1,486	405	-276
Total Industrial Employment	59,914	69,226	61,652	78,417	75,863	+15,949	-2,554
Total All Sectors	169,550	211,884	201,781	240,834	246,852	+77,302	+6,018

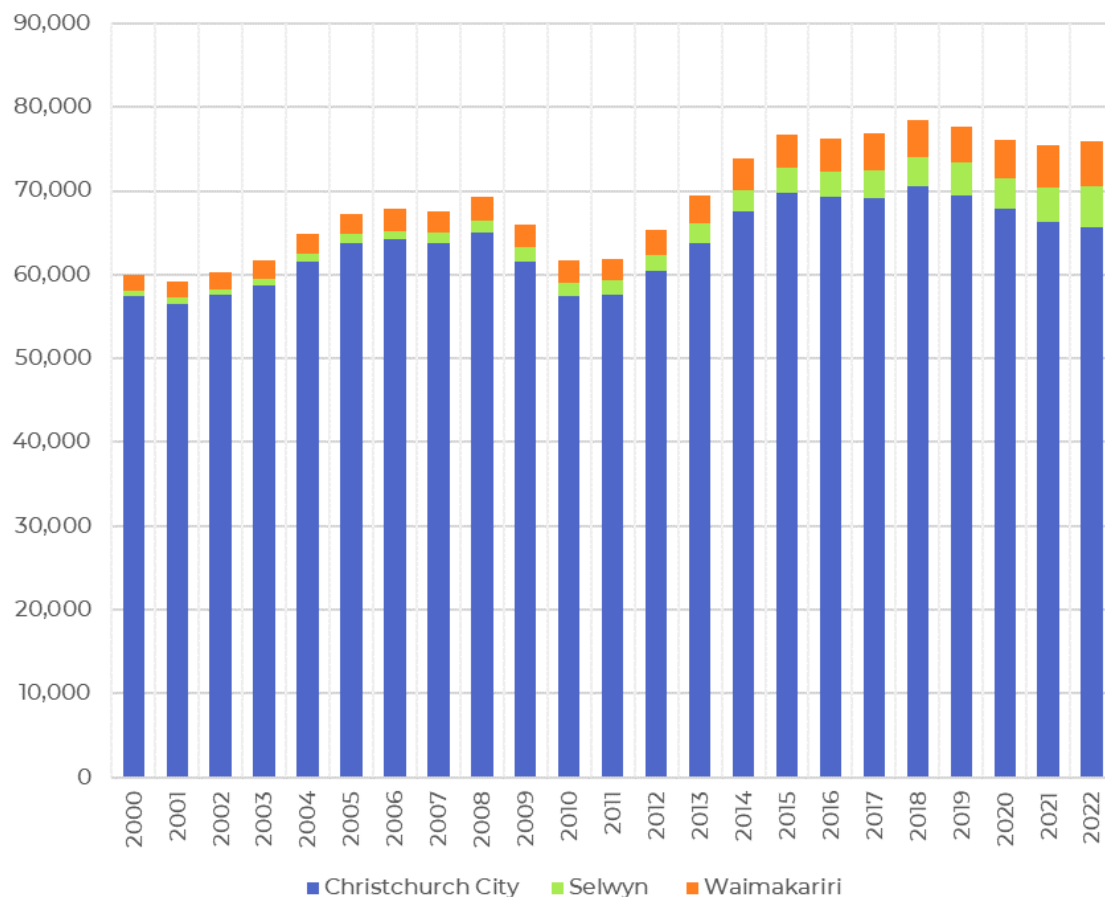
Source: Property Economics, Stats NZ

The following figure shows that over the last few years Industrial Activity within Christchurch City has declined but increased in both Selwyn and Waimakariri Districts. Specifically, the Selwyn and Waimakariri Districts have collectively grown by 2,311 industrial employees between 2018 and 2022, meaning the decrease of 2,554 employees shown in the preceding table is in fact a decrease of 4,865 employees for Christchurch City itself.

² Australia New Zealand Standard Industrial Classification 2006

The largest drop between 2018 and 2022 has been in the Transport, Postal and Warehousing section which dropped by almost 2,200 employees in Christchurch City, only 200 of which has been picked up by the Selwyn and Waimakariri districts (resulting in loss of 2,000 for the Greater Christchurch Area).

FIGURE 8: INDUSTRIAL EMPLOYMENT WITHIN GREATER CHRISTCHURCH BETWEEN 2000 AND 2022



Source: Property Economics, Stats NZ

The graph and table above show that although the industrial employment dropped following the 2008 Global Financial Crisis, the Christchurch earthquake rebuild resulted in the construction sector doubling from just under 12,000 in 2010 to a peak of over 26,900 employees in 2015. Although this, as expected, settled back to 23,400 by 2020, this still represents robust sectorial growth over the period. There has been growth of over 1,000 employees in the Construction Sector within the Selwyn and Waimakariri districts over the same period to show the benefits were across Greater Christchurch and not limited to Christchurch City

As previously indicated, Greater Christchurch captured most of the population and household growth within the region over recent years. This have fuelled construction sector employment growth to offset the post-rebuild employment loss between 2018 and 2022 in the Construction Sector. This equated to only 261 employees as 2022.

The COVID-19 pandemic also played an influence in employment losses over 2020 and 2021 in particular, but the market bounced back again in 2022 during the post-COVID residential market surge.

Finally, the Manufacturing Sector has been declining in employment as a general trend across the country. Put simply, New Zealand is struggling to be competitive in the manufacturing sector relative to other manufacturing location options overseas, particularly for large-scale international operations. Although some of this indicates a loss in production or business moving overseas, a portion of this decline in employment is the result of manufacturing activities pivoting to rely more heavily on capital investment automations that reduce human capital / employment requirements. Consequently, this industry, despite declining in total employment is not necessarily declining in land requirements or productivity

The following table (which was published as Table 22 in the HBA) compares the projected demand and supply for each Territorial Authority over the Short-, Medium-, and Long-Terms. This shows that the projected growth totalling 637ha for the Greater Christchurch area is well below the estimated vacant supply of over 1,000ha, even after accounting for infrastructure constraints. It also shows that there is sufficient zoned capacity in all of the three districts, with Waimakariri being the only district that comes close to its forecast demand reaching its level of current supply.

This means that additional industrial land in the PPC is not required for Greater Christchurch to meet current estimated levels of sufficiency over the 30-year period (2018 – 2048).

TABLE 3: GREATER CHRISTCHURCH INDUSTRIAL LAND SUFFICIENCY BY TERRITORIAL AUTHORITY

Area	Short term 2018-2021	Medium term 2021-2028	Long term 2028-2048
Christchurch			
Demand	89	32	482
Supply ³⁸	607	708	708
Sufficiency	518	676	226
Selwyn			
Demand	27	29	53
Supply	231-258	245-272	245-272
Sufficiency	204-231	216-243	192-219
Waimakariri			
Demand	90	71	102
Supply	109-161	109-161	109-161
Sufficiency	19-71	38-90	7-59
Greater Christchurch			
Demand	206	132	637
Supply	947-1,026	1,062-1,141	1,062-1,141
Sufficiency	741-820	930-1,009	425-504

Source: Housing and Business Development Capacity Assessment March 2018 pg. 36

5. KEY INDUSTRIAL SITE REQUIREMENTS

Policy 8 of the NPS-UD states the following:

Local authority decisions affecting urban environments are responsive to plan changes that would add significantly to development capacity and contribute to well-functioning urban environments, even if the development capacity is:

- *unanticipated by RMA planning documents; or*
- *out-of-sequence with planned land release*

The proposed development is an example of a plan change that is unanticipated by any RMA planning documents. Nevertheless, when we compare the characteristics of the site to key industrial site requirements, we find that there are a number of factors making an industrial zone, and in particular a HIZ, a logical and economically appropriate land use for the site that contributes to a well-functioning urban environment.

The location decision process of many industrial businesses is often complex and specific to each business and its operational requirements. There are however a set of key locational criteria that gives an understanding of the factors affecting business location, albeit to varying degrees. These can be used to assess the suitability of the subject site as an Industrial location. Some of the more critical characteristics from an industrial location perspective include.

- **Undisrupted water and electricity supply.** Note for some businesses the escalating price of electricity translates into lower profit margins. Black-outs and power surges are costly occurrences for businesses, especially if generators need to be hired. Seamless access to power and water is critical to the industrial sector to reduce risk and manage costs which are crucial to remaining competitive.
- **Digital capability.** Access to the latest digital technology is increasingly important. Many businesses now require uninterrupted digital access, with an increasing proportion of businesses becoming technologically reliant. This also helps future-proof the business location.
- **Close proximity / good access to transportation network.** This is important for staff getting to work, clients / reps visiting premises, and the efficient distribution of goods. Sites (or locations) adjacent to major arterial roads are preferred and often receive a premium in the market in more built-up urban areas. All activities that have a distribution / logistical focus prefer these locations.
- **Proximity to an appropriate labour supply.** For many industrial businesses access to labour is an important consideration in their location decision making processes, especially for manufacturing businesses where access to semi-skilled labour is vital.

- [Location of customers / target markets \(domestic and international\)](#). This has a strong influence on location depending on whether the business is servicing a localised market, a regional market or the national or international market. For those servicing the national and international markets and those businesses that have large transport costs, locations in close proximity to arterial roads, motorways, train lines and airports are preferable.
- [Location of suppliers](#). This can be especially important for businesses that have significant raw material inputs and freight costs.
- [Room for potential expansion and growth on the site](#). For most businesses relocating is a very expensive exercise, and for businesses with significant capital investment in their manufacturing operations (factory, plant and machinery), it is preferable to have a high level of certainty that they will be able to operate from the site for an extended period of time to ensure they achieve a return on their investment. Thus, having the ability to expand their operation to allow for business growth onsite is important. It's an important consideration for businesses who want to mitigate long term risks on their capital investment.
- [Land and property costs](#). This is a key criterion in the location decision of almost all businesses, particularly those that operate on low margins.
- [Level of congestion in peak times](#). This is becoming increasingly important, as it can have a significant influence on businesses heavily reliant of delivery of goods. In many main centres, for example, this is now a major consideration where time delays and trucks getting caught in traffic is having significant flow-on implications for company logistics and their ability to service clients to the level required.

Having assessed the subject PPC site against some of these key industrial location criteria, the subject site is considered suitable for industrial activities for the following reasons:

- The subject site is located directly adjacent to State Highway 1 allowing immediate access both north and south along State Highway 1 and is also directly adjacent to Marshs Rd which connects directly onto State Highway 76 and the Christchurch Southern Motorway. Furthermore, the site is located within 200m of the train line and is only around 12min drive from Christchurch International Airport. This means the subject site is well positioned to service the Greater Christchurch market, and broader domestic and international markets.
- The subject land is adjacent to the existing HIZ provision in the wider Hornby area. This creates travel efficiencies for workers and business logistics, and creates a lot of infrastructure efficiencies. HIZ land is notoriously difficult to find locations to rezone given the potential for reverse sensitivity effects to be generated. This last remaining pocket of land in between the existing HIZ and State Highway 1 represents a pragmatic and sensible zoning over the long term and supports creating a well-functioning urban environment.

Any alternative zones / land uses are likely to be adversely affected by the Heavy Industrial land already zoned adjacent to the site in the future.

- Following on from the preceding point, the subject site extends an existing Heavy Industrial Zone. The industrial activities at the site therefore would have ready access the existing industrial network and benefit from the positive agglomeration effects of heavy industrial activities clustering together (e.g., economies of scale in access to infrastructure which would reduce the marginal cost of infrastructure to Christchurch residents). The rezoning of this site would provide greater growth and expansion opportunities to heavy industrial activities that locate within the area.
- The site being on the fringe of Christchurch is well positioned to attract business that supplies / supports local agricultural activities
- The area is already well-established hub for large manufacturing and distribution / logistics businesses. For example, Foodstuff's and Woolworths Distribution Centres and Sleepyhead manufacturing are located within 1 minute drive of the site.
- The site is surrounded by existing roads to the north and south that already accommodate heavy industry vehicle movements. The PPC would utilise this existing infrastructure making the PPC a more efficient use of existing infrastructure capacity. Another benefit of the PPC location is that it would not require heavy vehicle truck movements through residential or more urbanised areas where adverse effects can be more pronounced. The PPC location would minimise any reverse sensitivities resulting from additional industrial truck movements.
- The site has a flat landform which is suitable to large scale industrial buildings and development. A flat landform makes the business location more competitive and feasible for development, and provides greater flexibility for buildings to expand in the future, futureproofing the large scale capital investment in these industrial properties.

Overall, the PPC would provide for a competitive and appealing heavy industrial location within the city and Greater Christchurch that positively contributes to a well-functioning urban environment over the long term in the context of the NPS-UD Policy 8.

6. ECONOMIC COSTS AND BENEFITS

The following section outlines some of the high-level economics costs and benefits of the PPC.

POTENTIAL BENEFITS

- + **Safeguards Land from Unsuitable Development:** As mentioned earlier, from an economic perspective, the site is considered an appropriate location to accommodate future heavy industrial activities. It complements the existing adjacent HIZ and represents a natural extension of the HIZ for this small remaining parcel in the wider HIZ block.

As such, although the land is not required to meet industrial land demand sufficiency over the next 30 years, Councils are not restricted to considering only a 30-year timeframe. Significant infrastructure investment for HIZ land requires consideration up to 50 years to provide market investment and infrastructure certainty.

Ultimately the loss of this land for HIZ over the longer term could create incompatible land uses. The PPC '*rounds out*' the HIZ for the wider block and secures this HIZ precinct by mitigating potential for reverse sensitivity effects from alternative land uses.

- + **Enablement of Economies of Scale and Industrial Agglomeration Effects:** The subject site adjoins the existing HIZ. As such, the proposed provision of industrial activities would gain benefits and efficiencies working within the same environment and clustering with similar businesses.
- + **Efficient Use of Infrastructure:** The PPC would promote the efficient use of existing infrastructure and future infrastructure investment given the site's proximity to the existing heavy industrial activities and urbanised areas.

This means that any activity on the subject site would be able to '*plug into*' the existing infrastructure and mitigate the requirement for significant additional public infrastructure investment. This reduces the marginal cost of infrastructure for the Christchurch community over time.

- + **Encourages Investment:** Zoning the subject site for Heavy Industrial activity would encourage (larger scale) capital investment in the area by securing the entire block as a HIZ location and future proofing the area to provide more market certainty on the activity that will be established in the area.

The PPC also provides growth opportunities for heavy industrial activities further entrenching the location as a HIZ hub to the benefit of the Christchurch economy. The PPC would also enable Christchurch to have a more competitive HIZ location to better compete for HIZ activities with Selwyn's IPort and Izone industrial area.

- ➕ **Potential for Downward Pressure on Industrial Land Prices:** With additional industrial land supply for heavy industrial activities, the average industrial land price within the City could fall and make the City a more competitive location to establish an industrial business.

Additional industrial land capacity, if at an appropriate (infrastructure and economically efficient) location, would also reduce the likelihood of industrial land banking and one developer controlling industrial land prices.

POTENTIAL COSTS

- ➖ **Potential to Undermine Existing Vacant Land Capacity:** Zoning additional vacant HIZ land has the potential to detract growth from the existing zoned industrial land capacity. The impact however is likely to be small given the quantum of vacant industrial land relative to the projected demand. That is, the level of vacancy is already at the point in which development is likely to be dispersed and the addition of the subject site is unlikely to create any noteworthy additional inefficiencies around the timeline for the development of industrial areas.
- ➖ **Generation of Some Adverse Environmental Effects (Relative to No Additional Business Activities at the Subject Site):** New industrial development at the subject site may have adverse off-site effects on adjacent or nearby rural properties and environment. These may be effects such as noise, visual effect of new industrial buildings, odour, dust, and traffic. The adjoining roading network to the north and south currently acts as a natural buffer to mitigate some of the adverse environmental effects by providing some distance between the land uses
- ➖ However, these roads are already utilised by heavy industrial vehicles and will be increasingly so as the adjacent HIZ land is developed. The additional environmental effects as a result of the PPC above the existing effects baseline would likely be insignificant from an economic perspective.

7. SUMMARY

This report has outlined the key economic issues surrounding the proposal to rezone 23ha of rural land to HIZ on the urban fringe of Hornby, Christchurch.

The HBA released for the Greater Christchurch Area in 2018 shows that there is more than sufficient vacant industrial land to meet projected demand over the next 30 years. Although it has been around 5 years since this assessment, the level of sufficiency was such that the balance of industrial land sufficiency is unlikely to have changed materially in that time.

However, HBA sufficiency is not considered the primary consideration in this instance. HIZ land is difficult to rezone and service given the significant infrastructure requirements. The subject piece of land represents a small natural extension of an existing HIZ block that would provide significant infrastructure and serviceability efficiencies for HIZ activities. It is the last remaining area within a wider HIZ block, is very well connected to key transport routes and is easily accessible to rail and the airport for domestic and international deliveries.

Property Economics considers the land to be a practical extension of the existing HIZ as it safeguards any incompatible activities being developed on the site that may affect the operations of the existing HIZ area.

Given the significant infrastructure investment developed around the subject site already for the existing HIZ provision it is not anticipated that the PPC would require a significant level of additional publicly funded infrastructure investment. As such the economic benefits of the PPC including agglomerations benefits, more competitive business location and land prices and market certainty would likely outweigh the economic costs.

Furthermore, the level of vacant industrial land available in the market means the site is unlikely to undermine the development timeframe of industrial areas in the Greater Christchurch wider market.

APPENDIX 1: INDUSTRIAL BUSINESS CLASSIFICATIONS

Property Economics utilises the 2006 Australian and New Zealand Standard Industrial Classification (ANZSIC) as guidance, whereby businesses are assigned an industry according to their predominant economic activity.

Industrial activities in general refer to land extensive activities, it includes part of the primary sector, largely raw material extraction industries such as mining and farming; the secondary sector, involving refining, construction, and Manufacturing; and part of the tertiary sector, which involves distribution of manufactured goods. The employees work for the following sectors are considered an industrial sector employee:

- 10% of Agriculture, Forestry and Fishing
- 10% of Mining
- Manufacturing
- 30% Electricity, Gas, Water and Waste Services
- Construction
- Wholesale Trade
- Transport, Postal and Warehousing
- 40% Rental, Hiring and Real Estate Services