URBAN ECONOMICS

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Economic Cost Benefit Analysis of: The Yards Industrial Centre, Queenstown Lakes

PREPARED FOR

The Cardrona Cattle Company Ltd

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1. Executive Summary

- The study area (refer to section 3) has a supply of 158 hectares of industrial land, of which 31 hectares are vacant. The majority of vacant land in the study area is located in Cromwell (16 hectares) and Wanaka (14 hectares). Queenstown has 1 hectare of vacant land, making it practically impossible for new industrial businesses to find suitable land to establish their operation.
- Queenstown has the most expensive industrial land in New Zealand, at $1,460/m^2 ($14.6 million per hectare). This is due to the shortage of vacant land. Wanaka has relatively expensive land, at $790/m^2 and Cromwell has the least expensive land at $430/m^2. In general terms, industrial land in an efficient market will have a price of $200-250/m^2.
- Within the study area, there is currently a demand for 174 hectares of industrial land. This equates to 31m^2 of industrial land per capita. This ratio is broadly consistent with other major centres across NZ. There is a disproportionate distribution of industrial land within the study area, with Cromwell having 195m^2 per capita, Wanaka having 23m^2 per capita, and Queenstown having 6m^2 per capita. This is placing significant pressure on the Queenstown market, and also to a lesser extent on the Wanaka market.
- Within the study area, there is demand for a further 35 hectares of industrial land over the next decade. This will continue to place pressure on the district's industrial land market.
- Queenstown currently has a demand for 99 hectares of industrial land, however, only has a total supply of 24 hectares. This indicates Queenstown has a shortage of 75 hectares, and that by 2031, this shortage will increase to 92 hectares.
- The majority of the population in Queenstown Lakes is concentrated around Queenstown to the West of the site, Wanaka to the North and Cromwell to the East. The central point of the population point is derived from a weighted population average is approximately halfway between Queenstown and Cromwell. The proposed industrial centre is in close proximity to the central point of the population point, indicating it would be an efficient location for firms seeking to service the wider study area market from one location. The location would be particularly efficient for firms that service the wider district from one location.
- The 2008 GFC saw a drop off in new commercial buildings consented in the Otago Region, and the region has yet to recover to its per-GFC peak. This suggests that the shortage of low-priced vacant industrial land has impacted the growth of the industrial sector in the Otago Region. Since 2018 the Otago Region has experienced a decline in industrial building consents, which is likely a result of the shortage of low-priced industrial land.
- There are several economic benefits arising from the proposed industrial centre. It is estimated the land development of the proposal would generate 19 FTE jobs in the

construction sector and contribute $2.4m to GDP. The construction of buildings and other improvements in the centre is estimated to generate 325 FTE jobs and contribute $43.2m to GDP.

- The ongoing operation of industrial firms within the centre is estimated to generate 451 FTE jobs and contribute $71.7m to GDP. Over a 30-year period, the net present value (NPV) of this ongoing operation is approximately $1,289m.
- In summary, the proposed industrial centre would generate a total of 795 FTE jobs and would contribute $1,335m to GDP. A large proportion of this economic impact, potentially up to half, would not otherwise occur within the Queenstown Lakes District, due to the existing shortage of low-priced industrial land. This is therefore a significant potential economic benefit for the district from enabling the proposed industrial centre.
- Queenstown has a significant shortage of industrial land relative to the demand and this has resulted in prices being significantly higher at $1,460/m^2 than would be expected in an efficient market i.e. $250/m^2-$350/m^2. The proposed industrial centre would supply additional industrial land to meet the demands of the industrial sector. This would make the industrial land market more competitive within the Queenstown Lakes District and would result in a notable economic benefit.
- The proposed industrial centre would displace 37.2 hectares of rural land currently valued at s 9(2)(b)(ii) This is a relatively small economic cost in proportion to the benefits.
- Overall, the proposed industrial centre would have notable economic benefits and no significant economic costs, and is recommended for approval.

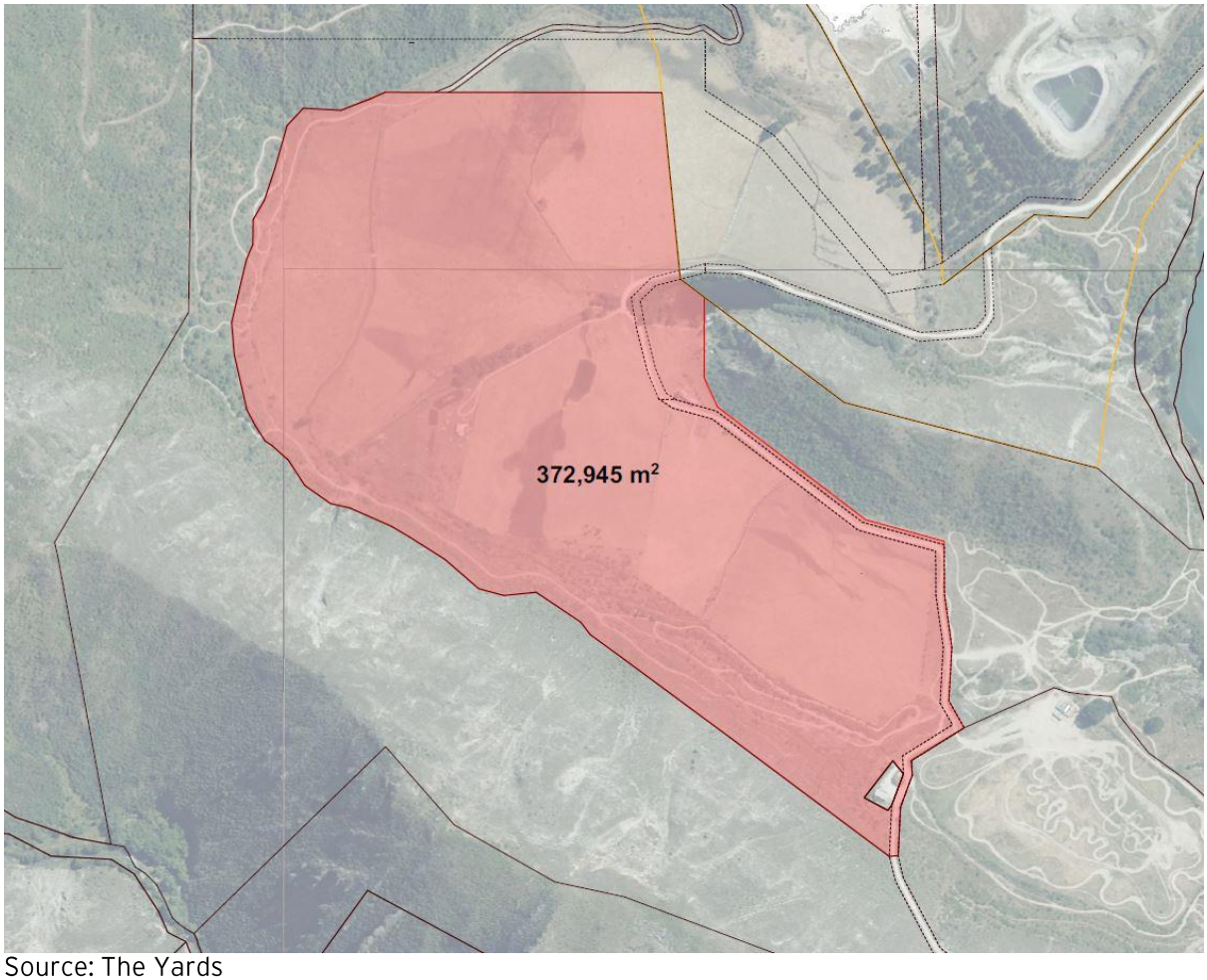
2. Introduction

This report provides a preliminary assessment of the economic costs and benefits of a proposed rezoning of an industrial centre site within the Gibbston Character Zone to a Rural Zone. This would have a Yard and Service Sub-Precinct enabling yard based and related industrial activities.

2.1. The Proposal

The proposed industrial centre (The Yards) has a site area of 37.2 hectares and is located on the Victoria Flats within the Queenstown Lakes District. Figure 1 outlines the location of the proposed industrial centre site.

Figure 1: Proposed Industrial Centre Site



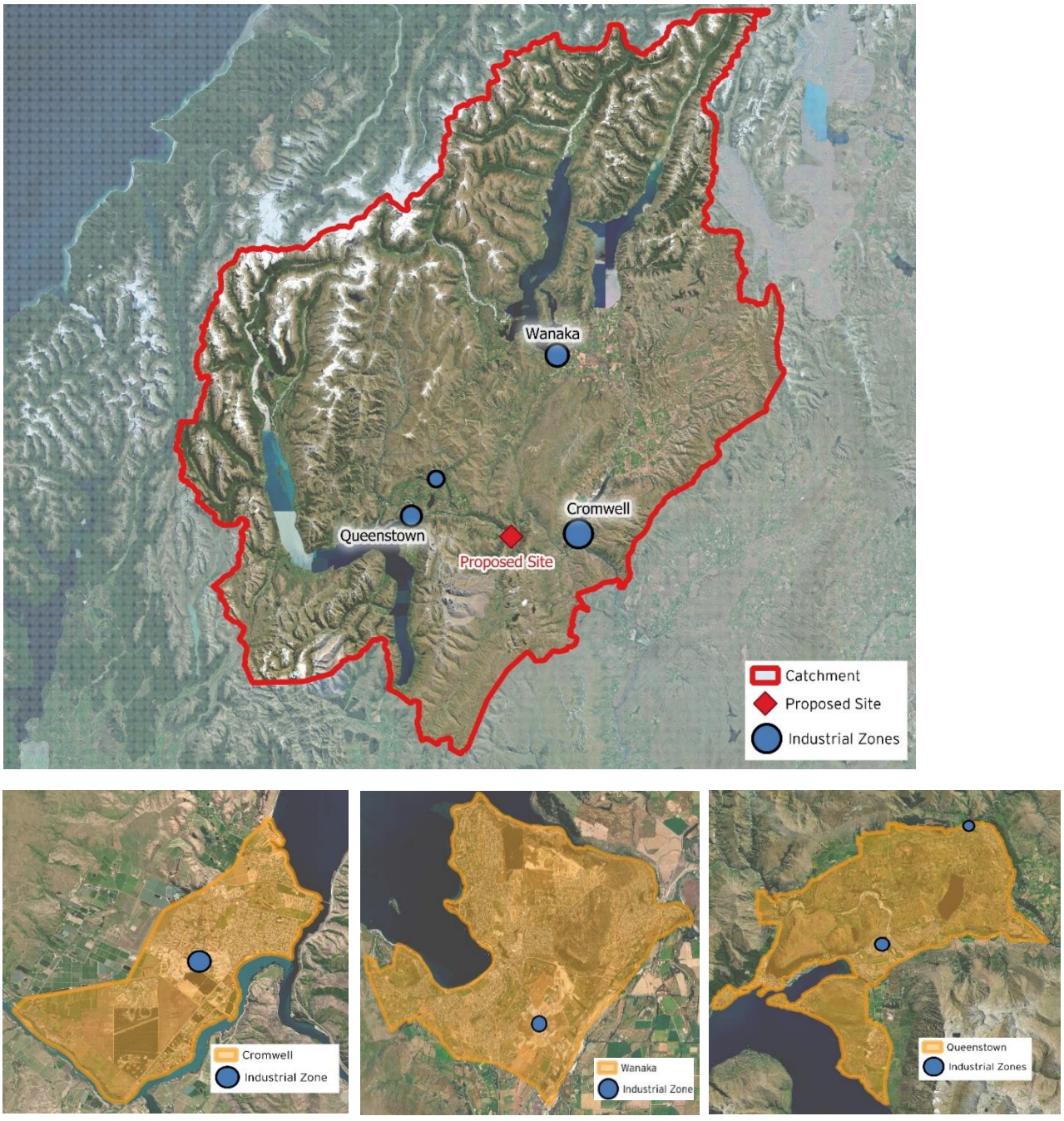
Source: The Yards

The Yards is designed to meet the needs of 'land extensive' industrial firms in the wider Queenstown Lakes area. The 'land extensive' types of businesses anticipated to establish in The Yards include, for example, manufacturing, building supplies, storage, distribution and general yard space.

3. Study Area

Figure 2 outlines the study area used for the analysis in this report. This catchment extends into the surrounding rural area, notably including the Queenstown, Cromwell and Wanaka towns. The location of the industrial centres within each town is also identified.

Figure 2: Study Area



Source: Urban Economics

4. Industrial Market Land Supply

This section evaluates the industrial land supply within the study area.

4.1. Existing Industrial Land Stock

The following figure shows the existing stock of industrial land within the study area. In total, there are 158 hectares of industrial land within the study area, of which 31 hectares (20%) are vacant. The majority of the vacant land (97%) is within Cromwell and Wanaka. Queenstown has 1 hectare of vacant land, confirming Queenstown has practically no vacant industrial land available for businesses looking to establish.

Figure 3: Industrial Land Stock

Sub-Region	Population 2021	Industry Land (ha)	Vacant Land (ha)	Industry Land (sqm per capita)
Cromwell	6,000	97	16	162
Wanaka	15,700	37	14	24
Queenstown	31,800	24	1	7
Total Catchment	**56,800**	**158**	**31**	**28**

Source: Statistics NZ, QLDC BDCA Report 2017 & Urban Economics

4.2. Existing Industrial Land Prices

Figure 4 shows the average gross sales price ($/m^2) of industrial land within the study area. The key points are:

- Queenstown has the most expensive industrial land at $1,460/m^2. This is higher than all other major centres (refer to Figure 6) indicating a shortage of land and other non-industrial uses are utilising this land.
- Wanaka has relatively expensive land, at $790/m^2.
- Cromwell has the least expensive land at $430/m^2. This reflects the relatively large quantity of land in Cromwell (97 hectares) relative to the population (6,000 people).

Figure 4: Industrial Land Sale Price ($/m^2)

Category	Cromwell	Wanaka	Queenstown
Light Manufacture	$425	$1,532	$723
Other/Mixed			$979
Vacant	$427	$1,600	
Warehouse		$752	
Total	**$427**	**$1,460**	**$787**

Source: Corelogic

Figure 5 shows the capital value of industrial land within the study area. This is generally consistent with the recent sales data, with Queenstown having the highest priced industrial land. Followed by Wanaka and Cromwell.

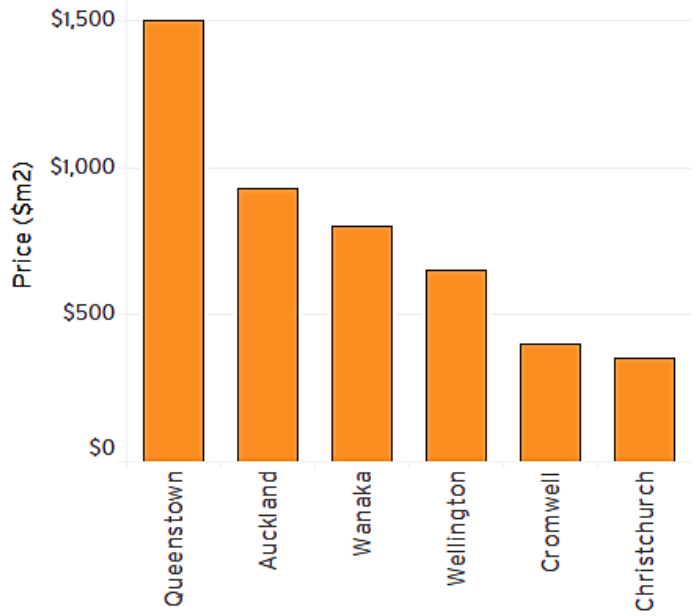
Figure 5: Industrial Land Value ($/m^2)

Category	Cromwell	Queenstown	Wanaka
Light Manufacture	$250	$1,000	$420
Other/Mixed	-	-	$650
Vacant	$310	$970	-
Warehouse	-	$230	-
Total	**$300**	**$890**	**$480**

Source: Corelogic

Figure 6 compares the price of industrial land in the study area with several major centres across NZ. Queenstown has the highest priced industrial land in NZ indicating a significant shortage relative to demand. Wanaka also has relatively high-priced industrial land, which at $790/m^2 is significantly above Christchurch, at $350/m^2. In general terms, industrial land in an efficient market will have a price of $200-250/m^2. This confirms that the study area has a general shortage of land.

Figure 6: Industrial Land Sale Prices Across Major Centres in NZ



Source: Bayleys, Colliers

4.3. Comparable Industrial Centres

Figure 7 displays comparable new industrial centres across NZ for the purpose of determining the improvement value per hectare ratio (IV/Ha). This is to inform the anticipated economic contribution of the proposal from construction (section 7.1). Only recently constructed industrial properties (after 2010) have been considered in this analysis. The locations considered are the new industrial land in East Tamaki (Auckland), Rolleston (Christchurch), Te Rapa Park (Hamilton) and Tauriko (Tauranga). The key findings are as follows:

- Tauriko has both the highest average and maximum improvement value of $9,060,000 and $28,860,000 per hectare respectively.
- Rolleston has the lowest average improvement value of $6,050,000 per hectare.

Figure 7: Improvement Value of Comparable Industrial Centres in NZ

Industrial Location	Land Area (Ha)	Minimum IV/Ha ($)	Average IV/Ha	Maximum IV/Ha ($)
Tauriko	57.3	$70,000	$9,060,000	$28,860,000
Te Rapa Park	4.9	$2,650,000	$6,460,000	$9,900,000
East Tamaki	11.6	$5,620,000	$6,240,000	$7,400,000
Rolleston	78.7	$140,000	$6,050,000	$15,890,000

Source: Corelogic

5. Industrial Market Land Demand

This section evaluates the demand for industrial land within the study area. Figure 8 provides an estimate of industrial land per capita for the study area.

Across the study area, there is demand for 174 hectares of industrial land, which equates to 31m^2 per capita. This ratio is broadly consistent with other major centres across NZ.

There is a disproportionate distribution of industrial land within the study area, with Cromwell having 195m^2 per capita, Wanaka having 23m^2 per capita, and Queenstown having 6m^2 per capita. This distribution is reflected in the prices in each town, with Cromwell having relatively low industrial land prices, due to the strong supply, and Queenstown having extraordinarily high prices, due to the low supply. This distribution is likely to be resulting in significant inefficiencies, as a large number of firms that are providing goods and services to Queenstown are currently required to establish in Cromwell and Wanaka, creating additional transportation and environmental costs.

Figure 8: Industrial Land Demand Per Capita for the Study Area 2021

Population	Population	Industrial Land (ha)	Industrial Land per Capita (sqm)
Cromwell	6,000	117	195
Wanaka	16,000	37	23
Queenstown	32,000	20	6
Total Catchment	**56,800**	**174**	**31**

Source: Statistics NZ, Urban Economics

Figure 9 provides an estimate of current and future industrial land demand. This applies the current industrial land per capita ratio (31m^2 per capita) to the respective populations.

The two main points to note are:

- There is a demand for a further 35 hectares of industrial land over the 2021-2031 period[1].
- Queenstown currently has a demand for 99 hectares of industrial land, however, only has a total supply of 24 hectares. This indicates Queenstown has a shortage of 75 hectares, and that by 2031, this shortage will increase to 92 hectares.

Figure 9: Industrial Land Demand 2021-2031 Study Area

Population	2021	2023	2028	2031	2021-2031	10 yr. p.a
Cromwell	6,000	6,700	7,000	7,000	1,000	100
Wanaka	16,000	17,000	18,300	19,100	3,100	310
Queenstown	32,000	33,000	36,000	37,300	5,300	530
Total Catchment	**56,800**	**60,000**	**65,000**	**68,000**	**11,200**	**1,120**
Industrial Land Demand	**2021**	**2023**	**2028**	**2031**	**2021-2031**	**10 yr. p.a**
Cromwell	19	21	22	22	3	0.3
Wanaka	50	53	57	59	10	1.0
Queenstown	99	102	112	116	16	1.6
Total Catchment	**176**	**186**	**202**	**211**	**35**	**3.5**

Source: Statistics NZ, Urban Economics

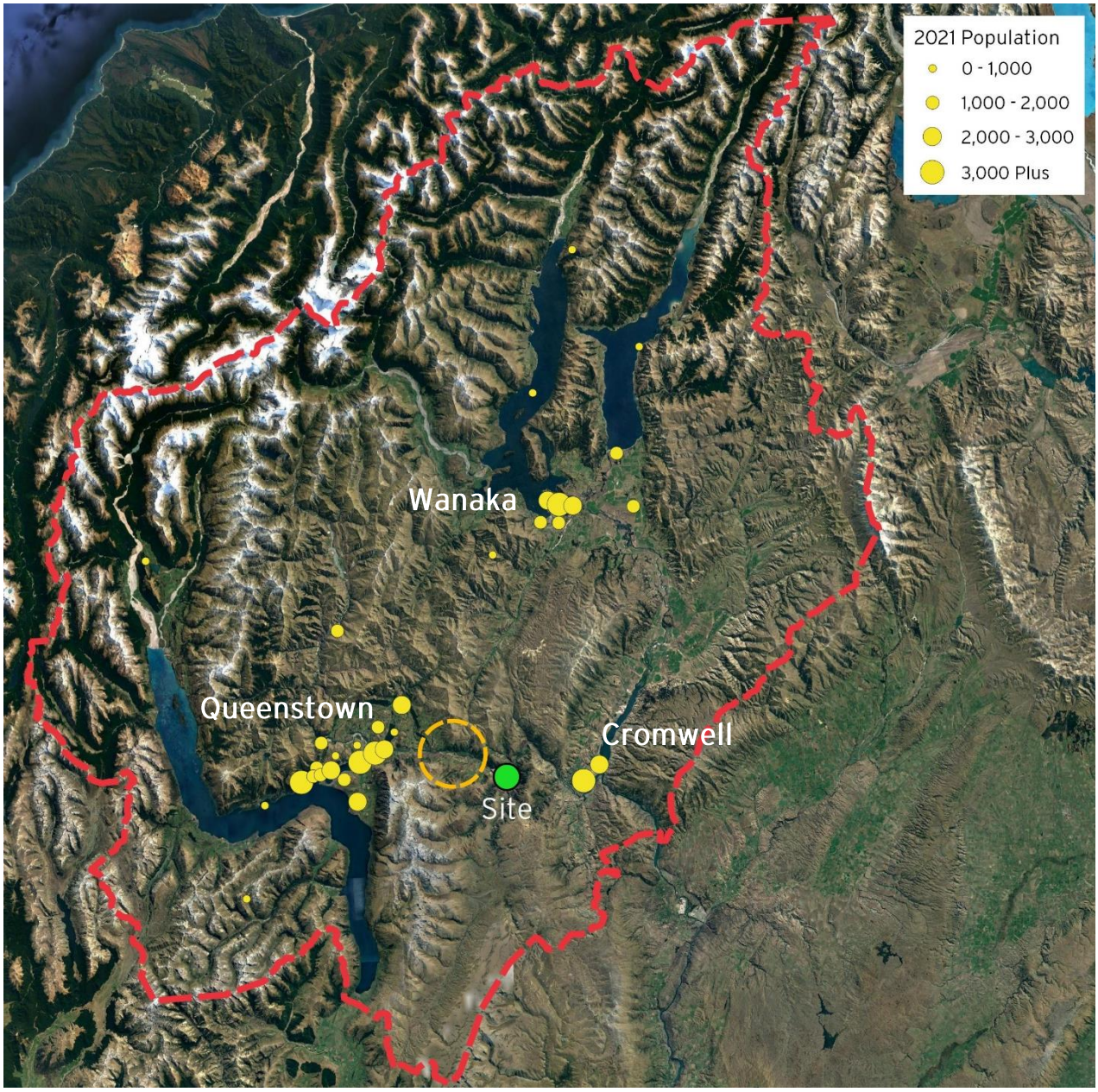
[1] This is broadly consistent with the Business Development Capacity Assessment 2017 report prepared by Market Economics, which estimates Wanaka and Queenstown will have demand for around 19 hectares of additional industrial land over the medium term. Urban Economics estimates demand for 26 hectares for these two towns over the same period.

6. Location Analysis

Figure 10 displays the distribution of the 2021 population within the study area, and identifies the central point of the population, which is situated approximately halfway between Queenstown and Cromwell. The important points to note are:

- The majority of the population in the catchment area is concentrated around Queenstown to the West of the site, Wanaka to the North and Cromwell to the East.
- The central point of the population point is derived from a weighted population average, combined with centre point coordinates of each Statistical Area 2 within the catchment area. The result of this is a point (indicated with an orange circle below) situated approximately halfway between Queenstown and Cromwell.
- The proposed industrial centre is in close proximity to the central point of the population point, indicating it would be an efficient location for firms seeking to service the wider study area market from one location.

Figure 10: Locational Analysis Map



Source: Statistics New Zealand, Urban Economics

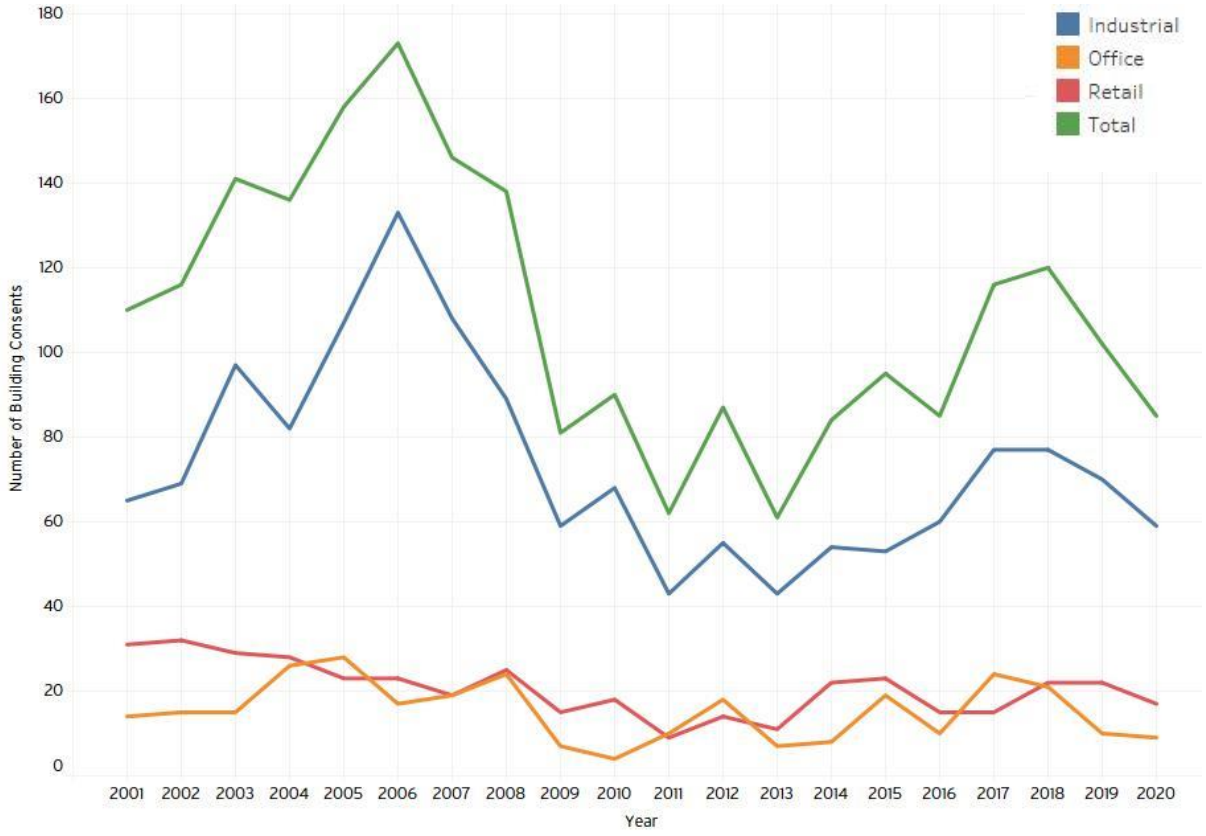
7. Impact of Covid-19

The COVID-19 Recovery (Fast-track Consenting) Act 2020 requires consideration of the costs and benefits of those involved in the construction sector, as follows.

> *The project's economic benefits and costs for people or industries affected by COVID-19 (see section 19(a)).*

Historically the construction sector has followed the wider economy closely. The global financial crisis of 2008 saw an accompanying drop off in new commercial buildings consented in the Otago Region. As displayed in Figure 11, the post-GFC recovery has been particularly slow as the region is yet to rebound to its pre-GFC peak. This suggests a potential regional shortage of affordable business land in the Otago Region.

Figure 11: Business Building Consents by Type: Otago Region (2001 - 2020)



Source: Statistics NZ

8. Economic Impact of Proposal

The proposed industrial centre is of a medium-large scale and as such would generate a significant economic contribution to GDP and employment. The national 'value-added per employee' for each sector has been used to estimate the GDP impact and the full-time equivalent (FTE) employment for the proposal.

The land development cost has been estimated at s 9(2)(b)(ii) per hectare. The evaluation of similar new industrial centres (in section 4.3) has been used to determine the cost of building and other improvements within the proposal.

The cost of constructing on the large lots is estimated at s 9(2)(b)(ii) per hectare and the live-work units are estimated at s 9(2)(b)(ii) per hectare. This is based on a distribution of improvement value per hectare for all the properties collected in section 4.3, then taking the lower quartile for the large lots, and the upper quartile for the live-work units.

It is estimated the land development of the proposal would generate 19 FTE jobs and contribute $2.4m to GDP. The construction of buildings and other improvements in the centre is estimated to generate 325 FTE jobs and contribute $43.2m to GDP.

The ongoing operation of industrial firms within the centre is estimated to generate 451 FTE jobs and contribute $71.7m to GDP. Over a 30-year period, the net present value (NPV) of this ongoing operation is approximately $1,289m at a discount rate of 4% per annum.

In summary, the proposed industrial centre would generate a total of 795 FTE jobs and would contribute $1,335m to GDP. A large proportion of this economic impact, potentially up to half, would not otherwise occur within the Queenstown Lakes District, due to the existing shortage of low-priced industrial land. There is therefore a significant potential economic benefit for the district from enabling the proposed industrial centre.

Figure 12: Land Development and Improvements Construction Cost

s 9(2)(b)(ii)

Source: Corelogic, Urban Economics

Figure 13: Economic Impact from Land Development

s 9(2)(b)(ii)

Figure 14: Economic Impact from Improvements on Construction

s 9(2)(b)(ii)

Figure 15: Economic Impact from Ongoing Operation of Industrial Firms

	Land Area	FTE Employees*	Value Added GDP ($M)**
Large Lots	23.6	354	$56.3
Live-Work Units		96	$15.3
Total	**27.5**	**451**	**$71.7**
NPV of Ongoing Employment	-	-	**$1,289**

Source: Statistics NZ, Urban Economics

*Estimated at 15 FTE's/Ha for large lots & 25 FTE's/Ha for live-work units

** Calculated based on a value added of $159,000 per employee

Figure 16 shows the estimated national 'value-added per FTE employee'. These value-added per employee figures are used to estimate the FTE employees created by the construction of the project outlined in Figures 13-15. Figure 16 shows that the construction sector has a $18.5B contribution to national GDP and a workforce of 139,800 FTEs, and the industrial sector has a $60.3B contribution to national GDP and a workforce of 380,700 FTEs. This results in a value-added of $133,000 and $159,000 per FTE employee respectively.

Figure 16: Industry GDP and Value Added per Employee

Sector	Value Added GDP ($M)	FTE Workers	Value Added GDP Per Employee
Construction	$18,540	139,800	$133,000
Industrial	$60,370	380,700	$159,000

Source: Statistics NZ, Urban Economics

The COVID-19 Recovery (Fast-track Consenting) Act 2020 requires several other economic considerations, which are addressed as follows.

> *The project's effect on the social and cultural well-being of current and future generations (see section 19(b)).*

The proposed development would enable employment and increase the range and affordability of industrial land and premises in the study area. The proposal would have a positive impact on the social and cultural well-being of current and future generations by enabling new businesses to

establish in the Queenstown Lakes District. It would also free up some existing industrial land in the main towns, with some firms relating to the proposed centre, and this would enable a range of smaller industrial firms to find suitable land and premises within the three main towns.

> ***If applicable, whether the project may result in a public benefit by generating employment (see section 19(d)(i)).***

As outlined above, the proposed industrial centre would generate a total of 795 FTE jobs and a $1,335m contribution to GDP, and a large proportion of this economic impact, potentially up to half, would not otherwise occur within the Queenstown Lakes District. This is a notable economic benefit.

9. NPS-UD Assessment

The NPS-UD 2020 requires planning decisions to contribute to well-functioning urban environments, which are urban environments which have (or enable) business land that is of a range that is suitable for different business sectors in terms of location and site size (Policy 1).

The proposal helps to achieve the NPS-UD objectives as it increases the supply of affordable land that accommodates the needs of various businesses that need to operate in the study area.

It is important to note that our estimates indicate that the NPS-UD medium-term capacity requirements for industrial land are currently not met, particularly for Queenstown, which has a significant shortage of industrial zone land (estimated to be 75 hectares currently). The proposal would contribute to this significant shortfall by providing an alternative and affordable location for industrial firms that service Queenstown.

10. Summary of Economic Benefits & Costs

10.1. Economic Benefits

The economic benefits arising from the proposed development are as below:

- It is estimated the land development of the proposal would generate 19 FTE jobs and contribute $2.4m to GDP. The construction of buildings and other improvements in the centre is estimated to generate 325 FTE jobs and contribute $43.2m to GDP.
- The ongoing operation of the industrial firms within the centre is estimated to generate 451 FTE jobs and contribute $71.7m to GDP. Over a 30-year time period, the net present value (NPV) of this ongoing operation is approximately $1,289m at a discount rate of 4% per annum.
- In summary, the proposed industrial centre would generate a total of 795 FTE jobs and would contribute $1,335m to GDP. A large proportion of this economic impact, potentially

up to half, would not otherwise occur within the Queenstown Lakes District, due to the existing shortage of low-priced industrial land. There is therefore a significant potential economic benefit for the district from enabling the proposed industrial centre.

- The proposed industrial centre is in close proximity to the central point of the population point, indicating it would be an efficient location for firms seeking to service the wider study area market from one location.
- Queenstown has a significant shortage of industrial land relative to the demand and this has resulted in prices being significantly higher at $1,460/m^2 than would be expected in an efficient market i.e. $250/m^2-$300/m^2. The proposed industrial centre would supply additional industrial land to meet the demands of the industrial sector. This would make the industrial land market more competitive within the Queenstown Lakes District and would result in a notable economic benefit.

10.2. Economic Costs

The proposed industrial centre would displace 37.2 hectares of rural land currently valued at approximately s 9(2)(b)(ii) This is a relatively small economic cost.

11. Conclusion

Overall, the proposed industrial centre would have significant economic benefits and no significant economic costs. As such, rezoning of the proposed development site from Gibbston Character Zone to a Rural Zone with the Yard and Service Sub-Precinct is recommended for approval.