BEFORE THE HEARINGS PANEL
FOR THE QUEENSTOWN LAKES PROPOSED DISTRICT PLAN

IN THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	of Stage 3 of the Proposed District Plan

EVIDENCE IN CHIEF OF NATALIE DIANNE HAMPSON FOR QUEENSTOWN LAKES DISTRICT COUNCIL

NPS-UDC CAPACITY AND ECONOMIC MATTERS RELATING TO THE GENERAL INDUSTRIAL AND THREE PARKS ZONES

18 March 2020

Simpson Grierson
Barristers & Solicitors

S J Scott / R Mortiaux
Telephone: +64-3-968 4018
Facsimile: +64-3-379 5023
Email: sarah.scott@simpsongrierson.com
PO Box 874
SOLICITORS
CHRISTCHURCH 8140

TABLE OF CONTENTS

1. INTRODUCTION

1.1 My full name is Natalie Dianne Hampson. I am a director consultant at Market Economics Limited (**M.E**) and hold a MSc in Geography from Auckland University.

1.2 I have 19 years' economic consulting and project experience, working for commercial and public sector clients. I specialise in land use analysis, assessment of demand and markets, the form and function of urban economies and growth, policy analysis, and evaluation of economic outcomes and effects, including costs and benefits.

1.3 I have applied these specialties in studies throughout New Zealand, and across most sectors of the economy, notably assessments of centres, urban form, land demand, commercial and service demand, housing, schooling, tourism, events, policy and local government.

1.4 I advise district and regional councils throughout New Zealand in relation to rural and urban policy and planning issues and the social and economic effects of these. I also provide consultancy services to a number of private sector clients in respect of a wide range of issues, including mixed-use commercial developments, residential subdivisions and the impact of policies and provisions on their operations and future development opportunities.

1.5 I am familiar with the Wanaka, Queenstown, Frankton Flats and wider Queenstown Lakes District (**QLD**) and Central Otago District, having undertaken a multitude of private sector projects over the years, and more recently public sector projects, including for Queenstown Lakes District Council (**QLDC** or **Council**).

1.6 I was the project manager and one of the authors[1] of the Business Development Capacity Assessment 2017 (**BDCA**) prepared for the Council, dated November 2018[2].

---

1 With: Greg Akehurst and Fraser Church (Market Economics) and Anita Vanstone, Ian Bayliss and Kim Banks (for Queenstown Lakes District Council).

2 https://www.qldc.govt.nz/media/2miflyor/business-capacity-development-assessment-2017-final.pdf

1.7 The BDCA was prepared in order to satisfy Policy PB1 of the National Policy Statement on Urban Development Capacity 2016 (**NPS-UDC**), which requires certain local authorities to carry out a housing and business development capacity assessment "*on at least a three-yearly basis*".[3] The BDCA provides that capacity assessment for the Council in relation to business land, with a separate capacity assessment addressing capacity in relation to land for housing (the **HDCA**).[4]

1.8 In October 2018, I filed evidence in the Environment Court on behalf of Council on the BDCA (objective, approach, limitations, results and estimated impacts of the PDP Decisions on Stage 1). This evidence was filed as part of Topic 2 of the Stage 1 appeals. The evidence was unchallenged and accepted in the Topic 2 decision.

1.9 In 2019 I produced a report for QLDC entitled 'Economic Assessment of Queenstown Lakes District's Industrial Zones – Stage 3 District Plan Review', May 2019 (the **Industrial Report**). This report was attached to the Section 32 report for the General Industrial Zone (**s32**) and is attached to this evidence as **Appendix A**.

1.10 I have recently completed an interim update of the BDCA modelling for Council (attached to this evidence as **Appendix B**). These 2020 results now supersede the BDCA 2017 results. The update amended the base year of the demand projections to 2018, applied a new (and higher) employment growth projection out to 2048, updated the ground truthing of vacant sites to January 2020 and took into account the Decisions Version (Stage 1 and 2) of the PDP and other zone changes that have occurred since the original modelling[5]. The update included an ability to test the implications of the notified Stage 3 changes to business enabled zones.

1.11 Although this is a Council Hearing, I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I

---

3 NPS-UDC, Policy PB1; which applies to all local authorities that have part, or all, of either a medium-growth urban area or high-growth urban area within their district or region.

4 Housing Development Capacity Assessment 2017, 27 March 2018, which is available at the following link: https://www.qldc.govt.nz/media/g1el5203/housing-capacity-assessment-2017.pdf.

5 These include PC53 (Northlake) and the land swap between the Community Purpose Zone on Grant Road to ODP Frankton Flats B Special Zone. Also includes the transfer of Lot 6 of the Remarkables Park Special Zone to Queenstown Airport Corporation (although this land has not been rezoned).

have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise, except where I state that I am relying on the evidence of another person.

1.12 The key documents I have used, or referred to, in forming my view while preparing this evidence are:

(a) The BDCA 2017, November 2018;
(b) My Topic 2 evidence on the BDCA, October 2018;
(c) The Industrial Report, May 2019;
(d) The Interim BDCA Update – March 2020;
(e) The s32 reports for the General Industrial Zone (**GIZ**) and the Three Parks Zone;
(f) Selected submissions on the notified GIZ and Three Parks;
(g) QLD Operative District Plan (ODP) and Proposed District Plan (**PDP**) Decisions Version (relevant chapters and plan maps);
(h) GIS mapping files of the PDP Decisions Version zoning and Stage 3 zoning supplied by QLDC; and
(i) The evidence of James Dicey, Matthew Jones, Richard Powell and Michael Smith for Council.

1.13 Attached to this evidence is:

(a) **Appendix A**: The Industrial Report
(b) **Appendix B**: The Interim BDCA Update
(c) **Appendix C**: Additional Multi Criteria Analysis Assessment

2. SCOPE

2.1 My evidence provides a high-level overview of the Interim BDCA Update and addresses the following matters, as per the below structure:

(a) Objectives and purpose of the BDCA;
(b) Overview of the model used for the BDCA, including:
    (i) Key data inputs;

(ii) Analytical process;

(iii) Key assumptions and limitations;

(iv) Key results; and

(c) Impact of the Stage 3 GIZ zoning and other notified changes on the outcomes of the Interim BDCA Update results.

2.2 I have been asked by the Council to provide economic evidence in relation to key themes of relief raised in submissions on the notified GIZ and changes proposed to zoning in Three Parks. The themes that I provide additional analysis and commentary on include:

(a) The strategic role of the GIZ.

(b) Potential economic effects on existing non-industrial and non-service activities and landowners in the notified GIZ.

(c) The effectiveness of the notified GIZ on areas already developed.

(d) Understanding the role of trade suppliers in the district economy and the likely costs and benefits of a more permissive regime for trade suppliers in the GIZ.

(e) Provision for ancillary office and retail space in the notified GIZ.

2.3 I have also been asked by the Council to provide economic evidence in relation to a number of specific rezoning submissions that relate to the notified GIZ and Three Parks. These include:

(a) Submission 3003 – Michael Thomas

(b) Submission 3256 – Upper Clutha Transport Ltd

(c) Submission 3357 – The Station at Waitiri Ltd

(d) Submission 3349 – Cardrona Cattle Company Ltd

(e) Submission 3128 – Tussock Rise Ltd

(f) Submissions 3234, 3235, 3266, 3286, 3298, 3300 – these submissions are referred to collectively as **Breen Construction Company et al** in my evidence

(g) Submission 3220 – Willowridge Developments Ltd

2.4 Throughout this evidence, I have referred to the ODP Industrial Zone as 'Industrial A' zone to avoid any confusion with the ODP 'Industrial B' zone.

3. EXECUTIVE SUMMARY

Capacity - NPSUDC

3.1 I have carried out an update of the BDCA 2017. This takes into account the latest (higher) demand projections, a 2018 base year, the uptake of vacant capacity since the original snap-shot two years ago, and the Decisions Version on Stages 1 and 2 zoning framework.

3.2 The overall results of the update by Ward show that demand for Industrial type land use/building typologies in the Wanaka Ward is estimated at 12.3 ha by 2048 inclusive of a margin. Estimated vacant Industrial capacity is estimated at between 27-37 ha. The conclusion is that the current zoning provides sufficient industrial capacity to meet long term demand. The notified Stage 3 zoning does not alter this conclusion.

3.3 Long term Industrial demand in the Wakatipu ward is estimated at 47 ha (2048). Estimated vacant Industrial capacity in this Ward is estimated at between 60-79 ha. Again, this shows sufficient capacity over the long term. Caution is however recommended for the Wakatipu results. An estimated 23 ha of vacant industrial capacity is within the operational area of the airport. Excluding this, as well as demand likely to be met by the airport, a long term shortfall of just over 6 ha is considered likely by 2048. This shortfall would increase to nearly 15 ha by 2048 if QAC land in the ODP Frankton Flats B zone is retained/utilised for airport related use only in future. The Stage 3 notified zoning does not alter these conclusions for the Wakatipu Ward.

Strategic role of the GIZ

3.4 I consider it important that QLD moves forward with a clearly defined industrial zone that can accommodate the projected growth of the industrial economy, and particularly those industrial and service

activities that are dependent on a zoned location where their effects can be managed; they are protected from reverse sensitivity effects; and their commercial viability can be sustained. The narrow role of the notified GIZ – focussed on providing for industrial and service activities, is considered appropriate on the basis that non-complying and prohibited activities are provided for in other zones. If the notified GIZ was amended to a very permissive regime, this would in my view start to duplicate the role of other business zones and will distribute office and retail activity (for example) over a wider area and more locations. This prevents the concentration of activities in particular locations where benefits can be maximised and externalities can be managed.

GIZ: Trade suppliers

3.5 I consider the prohibited activity status for trade suppliers could be relaxed without adversely affecting the ability of the zone to effectively and efficiently meet the zone objectives. Under the PDP definition, there are a broad range of potential businesses and these will vary on a spectrum between totally wholesale activities to partial wholesale and retail activities. The effects and site requirements of some trade suppliers may be very similar to certain industrial and service activities anticipated in the notified GIZ and they are likely to benefit from having the option to locate in the GIZ.

Rezoning submissions

3.6 The submission by **Michael Thomas** seeks a more mixed use zoning for the Bush Creek Road (Arrowtown) ODP Industrial A zone rather than GIZ. I am opposed to this relief. The GIZ is the most appropriate zone to maintain and protect the existing industrial and service activities which dominate the land-use in this location (17 of the 24 predominant business activities surveyed by Council). I consider that the mixed use zoning would adversely affect the ongoing commercial viability of the existing low-intensity and yard based activities along Bush Creek Road, increasing the value of the land and encouraging redevelopment to higher value land uses. I do however support the submitters relief for a single zoning for 14 Bush Creek Road for efficiency reasons.

3.7 **Upper Clutha Transport Ltd** seek relief to add an area of GIZ to Luggate to allow them to relocate their existing service activity, currently located in the notified Settlement Zone. I support this relief. The submission also requests that the notified GIZ provisions enable workers' accommodation ancillary to industrial or service activities. I support this submission point as long as there are mechanisms that prevent these buildings/areas from being sold or rented to the general property market and that an operational need can be demonstrated. The submission also requests that trade suppliers be enabled in the GIZ. As above, I also support some relaxation of the prohibited status of trade suppliers in the GIZ.

3.8 The **Cardrona Cattle Company Ltd** and **The Station at Waitiri Ltd** have requested that their land in Gibbston (zoned Rural and Gibbston Character Zone and Gibbston Character Zone respectively) be included within the GIZ. I neither support or oppose this relief. From an economic perspective, there are greater benefits from expanding an existing industrial zone if this is practicable compared to creating new, discrete locations of GIZ. However, from an NPS-UDC perspective, these sites would appear to be commercially feasible for industrial development and could help prevent the risk of a long term shortfall of capacity. There would likely be greater economic costs on workers and businesses located in this proposed zone because of the distance from urban areas (compared to an alternative greenfield site that was closer to urban areas) and the site may prove less efficient for service activities that rely strongly on custom from the general public (again because of distance). A GIZ would mean a loss of potential productive capacity for viticulture. I have not quantified the net economic effects of this trade-off.

3.9 **Tussock Rise Ltd** seek that the areas in the ODP Industrial A and Industrial B Zones on both sides of Frederick Street (Wanaka) and to the north of Frederick Street, including the submitter's land at Lot 2 DP 477622, be rezoned from GIZ to BMUZ. I am opposed to this relief. Nor do I support the partial BMUZ and Low Density Residential Zone for the submitters land. Their site provides valuable greenfield capacity for industrial and service growth in Wanaka. The submitter also seeks

that the area currently zoned ODP Three Parks Business Precinct should be zoned BMUZ instead of GIZ. I support this relief in part as GIZ may not be the most efficient zone for this area, which has only a minor industrial and service role at present.

3.10 **Breen Construction et al** seek relief that amends notified GIZ provisions to allow for Office, Commercial and Retail activities not ancillary to industrial or service activity use. I am opposed to this relief. There are alternate, commercially feasible zones for these activities and the economic costs of enabling higher value land uses in the GIZ will outweigh the economic benefits of providing for them in the GIZ. **NPR Trading Ltd** requests alternate relief for the GIZ provisions for Office, Retail and Commercial activities be relaxed along Gordon Road, or alternatively zone Gordon BMUZ (while also deterring residential and visitor accommodation activities). I am opposed to this relief.

3.11 **Willowridge Developments Ltd** seek that the area notified as GIZ be zoned Three Parks Business Zone and that a portion of land notified in Stage 3 as LDSRZ and MDR be zoned Three Parks Business to further expand that zone. I support this relief. In particular expanding this business zone represents a strategic opportunity that will be lost once the surrounding residential zones are developed. The submitter also seeks a different layout and increase in size of the notified Three Parks Commercial Zone. By my estimates the notified Three Parks Commercial Zone reduced commercial and retail capacity relative to the operative zoning. I support this relief on the basis that the proposed capacity is closer to the status quo.

4. OBJECTIVE AND PURPOSE OF THE BDCA

4.1 Local authorities have an important role to play in the operation of their economy, primarily through planning for growth. Ensuring that there are sufficient opportunities for development means that businesses and households can be accommodated in appropriate locations without undue constraint. The NPS-UDC contains a number of objectives and policies that aim to achieve those broad outcomes. It requires local authorities to ensure that there is sufficient business [and housing] land to meet expected demand over the short (3 years), medium (10 years) and long term (30 years).

4.2 As a high-growth Council,[6] the Council is required to satisfy the full suite of NPS-UDC objectives and policies. Policy PB1 requires that those local authorities with all or part of a high-growth urban area carry out, on at least a three-yearly basis, a business [and housing] development capacity assessment that provides a detailed analysis of the QLD business market, including drivers and influences on demand and supply (including the interaction with population growth), and the sufficiency of capacity provided within the district plan.

4.3 Policy PB3 requires that the BDCA estimates the sufficiency of development capacity, including how much is "feasible" to develop in the current market and expected to be taken up over time. In addition, to account for a portion of feasible development capacity that may not be developed, the calculation of the required total feasible capacity to meet demand needs to include margins over and above the projected demand, to inform Policies PC1 and PC2.

4.4 The BDCA 2017 was the first capacity assessment completed by Council that met the requirements of the NPS-UDC. It was a comprehensive assessment of the QLD urban economy. It considered projected employment demand by different economic sectors and translated this demand into estimates of future land and floor space to be met within urban business enabled zones. This demand was compared with a January 2018 snap-shot of vacant business land and

6 As defined by Statistics New Zealand in 2016.

floor space capacity in those same zones to determine the sufficiency of zoned land to cater for growth in the short, medium and long term.

4.5 The BDCA Update (March 2020) is the first update of the capacity assessment under the NPS-UDC although it is considered an 'interim' update[7]. This is because it is based on an interim update of population projections (released in October 2018) and new (and more up to date) population and tourism growth projections for the district are expected later in 2020. M.E anticipates (although is not certain) that the BDCA will be updated again once those projections are available.

4.6 The BDCA forms a key part of Council's evidence base that will inform current and future planning and infrastructure decisions, in particular the development of the Spatial Plan (which is also a 'Future Development Strategy' (**FDS**)). The preparation of a FDS is required by policies PC12 to PC14 of the NPS-UDC.

4.7 The following section provides an overview of the modelling approach of the BDCA (Interim Update). Further detail can be found in the BDCA 2017 report and the update addendum attached as **Appendix B**.

5. OVERVIEW OF THE MODEL USED FOR THE BDCA (March 2020)

Key data inputs

5.1 The modelling in the BDCA is divided into three discrete areas: demand, vacant capacity and commercial feasibility.

5.2 The key inputs to demand modelling are:

(a) **Employment projections by 48 economic sectors.**
M.E developed a 'business as usual' projection of employment (based on the combined total of employee count (**EC**) and M.E estimates of working proprietors in each sector

7 The BDCA modelling has been updated but not the full BDCA 2017 report. Much of the BDCA 2017 report remains relevant. For the purpose of the March 2020 update, an addendum report was produced for Council by M.E that focussed on the update approach and results only. This addendum report is dated 17th March and is attached to this evidence (Appendix B). This report has yet to be adopted by Council.

– referred to as a Modified Employment Count or (**MEC**)[8]) for the total District using our Economic Futures Model (**EFM**). As an input to that specific model, M.E relied upon the Council's October 2018 population projections and 2017 High average day tourist growth projections and a range of other high-level economic data inputs. The base year of the model is 2018 and there is a 5-yearly outlook to 2048. This model provides projections for the Wanaka Ward and the Wakatipu Ward (being the combined Queenstown-Wakatipu and Arrowtown Ward areas). The EFM takes into account the changing population demographics and the impact this has on business employment demand, national trends in primary production sectors, the current levels of employment by sector and the relationship (trade flows[9]) between the Wanaka and Wakatipu Wards, and with the rest of the Otago Region (i.e. trade flows with areas like Cromwell and Dunedin) and the rest of New Zealand. This is important as growth in QLD will increase demand for imports from other areas outside the district, and growth outside the district will increase demand for exports from QLD.

(b) **Data on 2018 employment numbers (MECs) for the same 48 sectors, by meshblock within QLD (sourced from the Statistics NZ Business Frame).**

Meshblocks were broadly matched to zones within the district, allowing the current share of employment in each sector that falls within urban business enabled zones, within urban residential zones and within the rural environment to be calculated.

(c) **Estimates of how employment activity in any one sector is spread across 13 urban land use / building typologies**. Both the typologies and the high-level distribution estimates are based on relationships previously developed by M.E – they represent national averages.[10] These were used in lieu of any locally established typologies and relationships. These relationships were developed at the detailed 6-digit industry

8 M.E notes, that Mr Heaths evidence (Topic 1 24th September 2018) contains his own employment projections that are based on the employee count (EC). Mr Heath's projections are organised by 1 digit ANZSIC industries which are slightly more aggregated than M. E's 48 sector approach.

9 Inter-regional imports and exports.

10 The same averages were used in the NPS-UDC demand modelling for the Future Proof Partner Councils.

level and have been aggregated using a weighted average approach based on the 2016 QLD mix of industries currently within each of the 48-sectors. They specify that, for example, employment in the Wholesale Sector is split between office space (5%) and warehouse space (95%); employment in the Local Government Sector is split between office space (50%) and other built commercial space[11] (50%), etc.

(d) **Estimates of (developable) land area and gross floor area (GFA) per MEC for each of the 13 urban typologies.** These high-level ratios are not specific to QLD but are based on estimates applied by M.E elsewhere, throughout New Zealand.

5.3 The key inputs to capacity modelling are:

(a) **Input from Council on the agreed list of urban business enabled zones, structure plans (in the case of Special Zones) and their spatial extent.** This included all town centres, town centre transition areas, commercial overlays, local shopping centres, village, business, mixed use, industrial, future commercial and airport zones within the urban environment. These were a combination of PDP and ODP zones (including other zone changes that have occurred since the BDCA 2017).

(b) **A desktop and physical survey of vacant land parcels within each of those zones**. This was based on a combination of 2020 aerial photographs and site-visits carried out in January 2020.

(c) **Input from Council on vacant land parcels that warranted some reduction in land area to account for anticipated roads/road reserves**. In short, small vacant sites in areas with established roads were not further reduced. Large, un-subdivided parcels in zones/structure plan precincts where little or no roads had been identified were reduced somewhat. All reductions (which ranged between 10% and 32%) were agreed by Council, allowing for consistent estimates of net developable vacant land area.

11 Includes libraries, swimming pools, recreation centres, service depots etc.

(d) **Input from Council to agree on the maximum site coverage and building height in each zone/structure plan precinct** – taking into account permitted or controlled activity status. This allowed the ground floor GFA and total building envelope GFA to be estimated. In some cases, total GFA caps apply to certain zones/structure plan precincts. These were also an input (constraint) in the modelling.

(e) **Input from Council to reconcile the different land uses enabled (permitted, controlled or restricted discretionary) in each zone/structure plan precinct with the 13 urban land use typologies.** This required assumptions to be made to accommodate the different planning language and terminology of the plan provisions with the sorts of land uses / building forms anticipated by M. E's typologies.

5.4 The commercial feasibility modelling took the form of a Multi Criteria Analysis (**MCA**) framework, as recommended by the NPS-UDC guidance.[12] The key inputs to commercial feasibility modelling for the 2017 report were:

(a) Criteria associated with industrial, retail and commercial visitor accommodation developed by M.E and applied in MCA's elsewhere in New Zealand.

(b) Input from local stakeholders on relevant local criteria, scoring and weighting of criteria (i.e. what is most important in QLD to developers).

(c) M.E and Council collaboration on MCA scoring of each location against the agreed criteria.

Analytical process

5.5 The modelling approach is relatively straightforward and works through each of the datasets described above (and in the order specified).

12 http://www.mfe.govt.nz/publications/towns-and-cities/national-policy-statement-urban-development-capacity-guide-evidence

5.6 The demand model takes the employment currently located in urban business enabled zones (based on the 2016 distribution but checked for continued applicability against the 2018 distribution) and assumes that this share of total district employment in each sector remains constant for each projected year. The growth in employment that is anticipated to seek an urban business zone location is then distributed across the 13 land use typologies to identify the share of growth likely to occupy shops, offices, warehouses, factories, yards etc. The ratios of land area and GFA associated with those typologies are multiplied through, resulting in the estimated growth in land and GFA projected for shops, offices, warehouses, factories, yards, etc in the Wanaka and Wakatipu Wards between 2018 and 2021 – the short term, between 2018 and 2028 – the medium term and between 2018 and 2048 – the long term. A margin of feasible development capacity on top of that demand is applied – 20% for growth up to 2028 and 15% for growth occurring between 2028 and 2048, as required by the NPS-UDC.

5.7 The capacity model identifies the vacant land parcels in each urban business enabled zone/structure plan precinct, factors them down (if necessary) to an estimated net developable land area and calculates the ground floor and total building envelope GFA.

5.8 That vacant developable land and GFA is then coded (using a simple binary approach) as providing capacity for shops, offices, factories, warehouses, yards etc based on interpretation of the applicable district plan provisions. This provides the growth capacity (in land area and sqm GFA) of each zone or structure plan precinct to accommodate demand for specific land use typologies. There are no timeframes associated with growth capacity – it is an estimate at a fixed point in time – in this case, as at the beginning of 2020 when the ground truthing was carried out.

5.9 Sufficiency of that capacity to cater for projected demand is simply the comparison of demand in each ward by land use typology in the short, medium and long term (with the added margin), with estimated vacant capacity for that land use typology in that ward. Demand is not specific to a particular zone – it treats all places where it is enabled in the ward

as the same and so is compared against the aggregate vacant capacity where that land use is enabled.

5.10 The commercial feasibility modelling is essentially a standalone analysis that considers how developable theoretical capacity in different parts of the district would be. Another way of looking at it is how likely land will be developed by the market based on its locational attributes. This differs from the commercial feasibility approach in the HDCA which is price/cost driven. For the BDCA, it is a relative assessment that looks to rank locations irrespective of whether they enable a particular type of development or not. That way, the MCA has utility beyond the BDCA and is a tool that can help with identifying and evaluating new zone areas.

5.11 Locations across the district are scored (relative to each other) against a set of criteria. These criteria are weighted. The combination of scores and weighting gives each location a final score and rank. Each location is scored for its attractiveness for industrial, retail and commercial visitor accommodation using three sets of criteria – some of which apply to all three land use options. Given that commercial office space is often co-located with retail (including on upper floors), the retail results were also considered applicable to office development feasibility. Locations that might rank highly for industrial development may or may not also rank highly for retail or hotel development – and vice versa.

5.12 The vacant capacity (identified in the capacity model) that is enabled for industrial, retail, office and commercial visitor accommodation by location can then be compared with the feasibility ranking of those locations. Where vacant capacity falls within highly developable locations for a particular land use, it is generally considered to be feasible to develop and likely to be taken up by the market. The converse also applies. There are however a range of factors that might mean that development is feasible even when this MCA approach might suggest otherwise. These include locational attributes that are not captured by the criteria selected, price differences or incentives that attract development or tenants.

Key assumptions and limitations

5.13 The nature of the BDCA modelling – that seeks to model all sectors of the economy in a consistent matter but does not model particular sectors in any level of detail - means that a number of assumptions were necessary throughout the approach. These are detailed in the relevant sections of the BDCA 2017 report. Many of these assumptions are also the key limitations of the BDCA. In most cases, further targeted local analysis (including monitoring of local level trends) could replace some of the high-level data or estimates/averages applied – improving or avoiding some of the model's limitations.

5.14 Some key assumptions/limitations associated with the BDCA modelling approach that warrant mention include:

(a) The objectives and policies of the NPS-UDC are structured around "urban environments", and therefore the need to assess demand and provide sufficient development capacity (under Policies PA1 to PA4) applies to land within that urban environment. The employment projections developed for the BDCA are district wide. However, the geographic scope of the detailed modelling and analysis of business demand and capacity in QLD (described above) is limited to the defined urban environment (being the zones within the Wanaka, Arrowtown and Queenstown13 urban growth boundaries as well as the urban zones at Hāwea, Luggate (inclusive of the industrial overlay area) and the area of Low Density Residential Zone adjacent to Lake Hayes. I note that the BDCA has not modelled business demand and capacity in the rest of the district (the 'rural environment') and therefore has limited utility in the discourse of rural based business activities. It is however accepted that the rural environment plays an important role for certain sectors and activities – particularly tourism activities, the Wanaka Airport, ski fields and visitor accommodation. The share of current

13 Includes Arthurs Point, Fernhill and Sunshine Bay through to Frankton, Lake Hayes Estate, Shotover Country, Quail Rise, Kelvin Heights and Jacks Point Special /Zone.

employment that falls outside the urban environment has been reported.[14]

(b) The employment projections (developed using the EFM) represent scenarios of growth and are directly influenced by the inputs used in that model. Like all projections, there is a high degree of uncertainty in the medium and long term.

(c) M.E has assumed that the 2016 share of district employment (by sector) located in urban business enabled zones stays the same over the long term. As at 2018, the 2016 shares remain applicable. This implies that there will always be an equal proportion of employment in the business zones, residential zones and rural environment zones – i.e. that all locations grow at an equal rate. Further work is warranted in future BDCA updates to examine past trends, to test how static (or not) these ratios have been in recent years and use these trends as a guide for any future shifts in the location preferences of employment by sector. A potential issue with that is that what is urban now, may have been rural in the past. Similarly, increasing dwelling development in business enabled zones (i.e. apartments) may suggest growth of employment in business zones, when they may still be home based businesses. On balance, the approach taken – while a simple one – is considered appropriate for the purposes of the BDCA until further data is gathered.

(d) As stated, M.E applied national average ratios of land and GFA per person employed (MEC) for each land use typology in urban business enabled zones. There are two key limitations with that approach:

(i) First, the ratios may or may not be applicable in QLD. While activities and businesses located within QLD's business zones are not unique, local factors like urban building controls or land/sqm costs may mean that businesses operate out of sites and built spaces that differ from the national averages applied.

14 Table 3.3 of the BDCA 2017 report.

(ii) Second, the use of a single ratio to express the land and space demands of a potentially diverse range of businesses within any one sector may under or over-estimate land/GFA requirements for some activities and some locations.

These limitations are addressed in the BDCA 2017 report and further analysis will be required to either validate the appropriateness of the assumptions used or replace them with more robust, locally grounded ratios.

(e) To ensure a consistent approach to defining what was vacant business land and what was not, a series of rules were established for the BDCA 2017 that also apply to updates. In brief, bare land was considered vacant, as were unformed car parks (as these were considered likely to be temporary uses). If a site had been issued consent, was under construction, or was newly completed but not yet occupied– it was also considered vacant.[15] I note that other rules could have been applied (i.e. the issuing of a consent could have deemed a site not vacant). However, the adopted approach is based on the rationale that only when newly developed space is occupied by a business, is it capturing a share of employment demand growth.

(f) The BDCA also excludes 'redevelopment' capacity and is therefore conservative in that regard given that the proposed PDP rules are more enabling with substantial increases in height promoted within relevant business zones. Any redevelopment capacity that is taken up over the short, medium and long term will obviously have an effect on slowing the take-up of greenfield vacant capacity modelled in the BDCA.

(g) I make one final point that is neither an assumption nor a limitation, but a direct outcome of the QLD district plans (ODP and PDP), which is that vacant capacity identified in each zone can (often) enable a wide range of land use typologies.

15 Old, established premises that may be temporarily vacant (i.e. between leases) were not considered vacant capacity in the context of the BDCA approach. It is assumed that there is churn in business premises and it is normal for all urban areas to have a small share of built space unoccupied at any one time.

This means that vacant capacity may be available to develop as shops, offices, education, commercial yards, commercial visitor accommodation etc, depending on the zone. When typologies are categorised, it is possible in some zones/structure plan precincts, that vacant capacity in certain locations could be developed for a range of Retail, Commercial or Industrial uses (as in the BMUZ and the Frankton Flats (B) E2 precinct). This means that capacity can potentially be counted multiple times (where there is overlap across typologies or categories where zoned activities are broad). In some cases, land uses can co-locate or overlap by utilising the ground floor (i.e. retail) and upper floors (office or commercial visitor accommodation[16]). But in others a factory, warehouse or yard which occupies the ground floor typically leaves no 'upper floors' available for other land use types or activities. For this reason, M.E modelled ground floor GFA capacity separately from upper floor GFA capacity.

(h) The result of overlapping capacity was termed as the 'Maximum Potential' capacity in the BDCA. In practice, these results provide little certainty for estimating the sufficiency of capacity to meet projected demand. There is considerable risk double counting capacity and assuming that industrial enabled capacity, for example, will be taken up by industrial development when commercial activity is also enabled and offers a higher return to landowners. Development patterns have shown that ODP zones like Industrial A in Glenda Drive that were anticipated to be industrial areas have become mixed commercial areas, with many industrial activities pushed out or out-priced. The Maximum Potential Scenario does not take the reality of permissive zones into account. Arising from the above, <u>one</u> Alternative Capacity Scenario was developed that considered the locations of vacant capacity, the nature of existing activity and the drivers of future demand to remove the overlap and estimate what land use category that capacity was <u>most likely</u> to be developed as. These assumptions are outlined in the BDCA 2017

16 Residential apartments were also factored into M. E's modelling.

report.[17] In my view, the results based on this Alternative Capacity Scenario provide the greatest utility for Council's future planning and decision making, so long as the underlying assumptions are understood. This scenario is grounded on recent observations and an understanding of local market conditions.

Key results

5.15 As at 2016 (and still in 2018), approximately 88% of all employment (MECs) in QLD was located within the urban environment, with 12% located in the rural environment (as defined for the BDCA). The shares for each sector and in each ward varied above and below this average. This overall split reflects the concentration of households and therefore workforce, commercial centres and business zones (and their inter-relationships) within urban areas.

5.16 As at 2016 (and in 2018), approximately 72% of all QLD urban environment employment was located within the core business enabled zones and 28% was located in the non-business (residential and other) urban zones. Again, the shares for each sector in each ward varied above and below this average.

5.17 Employment growth across the total district is expected to be strong - driven by strong household and tourism growth. Under the QLDC October 2018 employment projections, little growth is anticipated in the primary sector – this remains only a small component of the QLD economy in the long-term. Industrial sectors have the fastest growth rate (58% compared to an average of 45% for all sectors) and employment in this category is expected to increase by a further 4,010 workers between 2018 and 2048. Retail, Accommodation and Food Services (combined) remain the largest share of business employment and are projected to grow by 52% above 2018 employment counts (growth of 5,720 workers by 2048). Other Commercial sectors (excluding government based sectors) have a combined long-term growth rate of 26% by 2048 (an increase of 2,410 workers by 2048)[18].

17 Discussed in section 5.4.4 and Appendix 14 of the 2017 BDCA.
18 Based on categorisation of 48 economic sectors in the EFM. Broad categorisation only and may differ from categorisations used in the BDCA 2017 or Industrial Report.

5.18 Employment growth projected in each ward will drive demand for business land and floor space in a range of locations – both urban and rural, and in a range of zones within each ward. For the purpose of the Interim BDCA Update, it was assumed that the business zones share (by sector) of each ward's total employment will remain constant over the long term (to 2048).

5.19 Projected employment growth anticipated to occur or be directed to urban business enabled zones in the Wanaka ward is 330 additional workers in the short term (7% growth 2018-2021), 940 additional workers in the medium term (20% growth 2018-2028) and 1,960 additional workers in the long term (42% growth 2018-2048). In the Wakatipu ward growth rates are similar, but the quantum of growth is larger. By 2021 there is projected to be 1,040 additional workers in urban business zones (7% growth), by 2028 projected growth is 2,940 additional workers (20% growth) and by 2048 projected growth is 6,530 additional workers (44% growth).

5.20 That employment has been distributed across the 13 main land use typologies and ratios of land and sqm GFA have been applied to each MEC. When those 13 typologies are grouped into Commercial, Industrial and Retail categories,[19] the **demand** growth results are as follows:

(a) 7.0 ha of Commercial[20] land by 2021, a further 12.3 ha by 2028 and a further 22.3 ha by 2048. This is total land demand of 41.7 ha to meet Commercial employment growth demand anticipated in urban business zones (based on the October 2018 growth projection) or 209,700sqm GFA.

(b) 7.3 ha of Industrial[21] land by 2021, a further 14.2 ha by 2028 and a further 29.1 ha by 2048. This is total land demand of 50.6 ha to meet Industrial employment growth demand anticipated in urban business areas (October 2018 growth projection) or 236,400sqm GFA.

19 These categories were identified in the guidance provided with the NPS-UDC and collectively span activities found in urban economies.

20 Commercial includes offices (including dentists, optometrists, real estate agents), commercial visitor accommodation, commercial yards, other built commercial (including libraries, recreation centres, halls, police stations, fire stations, specialist building), Education (including pre-schools, primary and secondary school and tertiary / trade education facilities) and outdoor commercial operations (i.e. depots, quarries, defence areas).

21 Industrial includes warehouses, factories, yards and other specialist industrial buildings (i.e. treatment plants).

(c) 3.3 ha of Retail[22] land by 2021, a further 5.8 ha by 2028 and a further 10.7 ha by 2048. This is total land demand to meet Retail employment growth anticipated in urban business areas of 19.8 ha (October 2018 growth projection) or 108,000sqm GFA.

(d) Combining all three land use categories above, this gives a total urban business zone land demand of 112.1 ha over the long term. This is split 24.9 ha in the Wanaka ward and 87.2 ha in the Wakatipu ward and does not include a margin on top of demand. It relates to demand for developable land area, not gross zone area.

(e) The measure of additional land area demand is considered more relevant for future planning for industrial growth as industrial activities are more land extensive and not easily accommodated in mixed-use buildings. Land area demand is also likely to be more relevant for future planning for retail growth as retail activities are generally limited to the ground floor. However, the measure of additional floor space is perhaps more relevant for future planning for commercial growth (particularly commercial office and accommodation) as many commercial activities are more easily located above ground and in conjunction with retail activities.

5.21 In total, the QLD urban business zones have estimated remaining (developable) **capacity** for 271.8 ha of business development when assessed against the ODP and PDP zones (and other minor business zoning changes that have occurred recently). This is as at January 2020.

5.22 A significant 187.6 ha (69%) is contained within Special Zones, particularly Remarkables Park (61.2 ha or 23% of the urban total), Frankton Flats B (33.1 ha or 12% of the total) and Three Parks (37.9 ha or 14% of the total).

5.23 The non-Special Zones account for 84.2 ha of vacant business land capacity (31% of the district total) under ODP and PDP. A large share of this (13.3 ha) falls within the PDP Visitor Accommodation Sub-Zone

22 Retail includes shops and food and beverage outlets.

of the Low Density Residential Zone (particularly in Fernhill which makes up 6.0 ha). Another large area of vacant capacity is the ODP Rural Visitor Zone in Arthurs Point (11.6 ha vacant) and the Queenstown Airport combined PDP Rural and Airport Mixed Use (**AMU**) Zone (23.2 ha estimated to be vacant and inclusive of Lot 6).

5.24 Overall, 73% (198.9 ha) of total vacant business capacity is located within the Wakatipu Ward and the balance (27% or 72.9 ha) is in the Wanaka Ward. Generally, the PDP Town Centre Zones have very little vacant capacity, although Plan Change 50 has created an estimated 4.3 ha of vacant business land within the PDP Queenstown Town Centre zone. Vacant capacity in the PDP Local Shopping Centres is spread between Hāwea, Albert Town, Wanaka (Cardrona Valley Road), Kelvin Heights and Frankton. Vacant ODP Industrial B land is only available in the Wanaka Ward.

5.25 The final estimate of maximum building floor space on developable vacant land in urban QLD, having applied the relevant development parameters and estimated residential apartment exclusions, is 3,615,800sqm GFA of business development. Overall, 81% of total vacant business floor space capacity is located within the Wakatipu Ward and the balance (19%) is within the Wanaka Ward

5.26 Using the same land uses / building typologies identified to place business demand 'on the ground' and matched broadly but not exactly to the activity status tables within the ODP and PDP[23], vacant land and GFA area by enabled space types – an output compatible with the demand modelling outputs – has been quantified. The following results include some overlap of vacant capacity between the categories referred to above:

(a) In the Wanaka Ward, there is a Maximum Potential for 72.9 ha of Commercial land use (653,800sqm GFA), 36.6 ha of Industrial land use (143,100sqm GFA) and 38.2 ha of Retail land use (142,000sqm GFA). More than a half (52%) of potential Commercial land capacity and 87% of potential

23 The building typologies used in the BDCA do not currently align directly with 'activities' as defined in the ODP or PDP.

Retail land capacity in the ward falls within the ODP Three Parks Special Zone.

(b) In the Wakatipu Ward, there is a Maximum Potential for 175.7 ha of Commercial land use (1.85m sqm GFA), 79.4 ha of Industrial land use (446,700sqm GFA) and 65.4 ha of Retail land use (321,200sqm GFA). A significant portion of the potential Industrial land capacity (32%) falls within the ODP Frankton Flats B Special Zone and the Queenstown Airport combined PDP Rural/AMU/Lot 6 Zone[24] (29%). Coneburn Industrial Zone introduced through the PDP accounts for 24% of the ward total industrial capacity under the ODP and PDP. The majority of the Retail land capacity within the Wakatipu Ward is located within the ODP Remarkables Park zone (19%) and ODP Frankton Flats B Zone (14%) zones. Just over a third of the Ward's commercial land capacity is also located in Remarkables Park.

5.27 The Maximum Capacity results above include overlaps between Commercial, Industrial and Retail capacity. The Alternative Capacity Scenario removes the overlap of capacity in those zones where flexibility is enabled between Retail, Commercial and/or Industrial activity. The scenario is indicative only. The allocation assumptions[25] take account of current development patterns and also the feasibility (attractiveness) of different zones for different types of activity. The outcomes of this alternative approach are:

(a) In the Wanaka Ward, there would be capacity for 45.4ha of Commercial land use (320,200sqm GFA), 27.1ha of Industrial land use (103,800sqm GFA) and 37.9ha of Retail land use (141,000sqm GFA) (all mutually exclusive). Commercial and Retail land capacity is dominated by the ODP Three Parks Special Zone (78% and 87% respectively).

(b) In the Wakatipu Ward, there would be potential capacity for 138.9 ha of Commercial land use (1,469,800 sqm GFA), 59.7 ha of Industrial land use (317,000sqm GFA) and 40.6 ha of

24 While we acknowledge that Lot 6 has not been rezoned since transferring to QAC, it is treated as likely to develop for airport related activities for the purpose of the BDCA 2020.

25 Detailed in Appendix 14 of the 2017 BDCA report as well as the 2020 Interim Update Addendum report attached to this evidence (Appendix B).

Retail land use (240,900sqm GFA). Excluding the potential Industrial capacity within the Airport combined PDP Rural/AMU and Lot 6 areas, this would leave 36.5 ha of industrial capacity in Frankton Flats B (including the rezoned land on Grant Road) and Coneburn Industrial Zone. The single largest volume of Retail capacity is within Remarkables Park (31%).

5.28 The MCA on **development feasibility** showed that a significant amount of potential vacant Industrial capacity is located in the most desirable location for industrial development – Frankton. This includes the airport area and Frankton Flats B. This is followed by capacity in Wanaka Central (areas around Ballantyne Road), the second most desirable location. This suggests a high level of certainty that this capacity will be developed.

5.29 The MCA analysis also shows that a significant amount of potential vacant Retail or Commercial Office capacity is also located in the most desirable locations for retail and office development – Frankton and Wanaka Central. This includes Frankton Flats A and B, Remarkables Park, Frankton Local Shopping Centre, Wanaka Town Centre and Three Parks. This suggests a high level of certainty that this capacity will be developed.

5.30 Policy PA1 of the NPS-UDC requires local authorities to ensure that "at any one time there is sufficient development capacity". For the medium and long term, the requirement is, respectively, that the land is zoned and feasible, with servicing or funding for development infrastructure, or feasible, identified in relevant plans and strategic documents.

5.31 The results below are based on cumulative demand compared to plan enabled 'vacant' capacity according to Commercial, Industrial and Retail categories and under the ODP and PDP. Each category is examined individually and according to the Council's October 2018 growth projection. The results are presented with demand estimates increased by a margin of 20% in the short and medium terms and by

15% in the long term to meet the requirements of Policy PC1. The latest **sufficiency** results are as follows:

(a) The ODP and PDP (Decisions Version on Stage 1 and 2) provide sufficient capacity for all Commercial land uses in the short, medium and long term in both the Wanaka and Wakatipu Ward urban business zones, including with the required margins on top of demand. Whilst acknowledging that a portion of the Maximum Potential capacity could alternatively be utilised for Retail or Industrial activities the surpluses are significant. Under the Alternative Capacity Scenario where overlap is removed, there is still sufficient commercial zoned land in the urban environment to cater for projected long term Commercial demand.

(b) The consolidated district plan provides sufficient capacity for all Retail land uses in the short, medium and long term in both the Wanaka and Wakatipu Ward urban business zones, including with a margin on top of demand. Whilst acknowledging that a small portion of the Maximum Potential capacity could alternatively be utilised for Commercial or Industrial activities the surpluses are significant. Under the Alternate Capacity Scenario, there is still sufficient retail zoned land in the urban environment to cater for projected long term Retail demand.

(c) The consolidated district plan provides sufficient capacity for all Industrial land uses in the short, medium and long term in the Wanaka and Wakatipu Ward urban business zones, including with a margin on top of demand. Whilst acknowledging that a portion of the Maximum Potential capacity could alternatively be utilised for Commercial or Retail activities, the surpluses are moderate. Under the Alternate Capacity Scenario, there is still sufficient industrial zoned land in the urban environment to cater for projected long term Industrial demand in both wards.

5.32 The sufficiency of urban industrial zones in the Wakatipu Ward was a key area of concern in the BDCA 2017 but the inclusion now of plan enabled capacity in the PDP Coneburn Industrial zone has provided

some much needed long term capacity. However, the BDCA Update considers the industrial capacity situation in the Wakatipu Ward in greater detail (and as applied in my Topic 2 evidence). I have considered both Wakatipu industrial demand and supply exclusive of projected business as usual employment growth in the Air Transport Services sector and vacant capacity in the Queenstown Airport's combined PDP Rural/AMU and Lot 6 area. This was because these combined areas – which have a significant 23.2 ha of vacant 'Industrial' land capacity according to current estimates - would not be available to cater for general industrial sector demand growth given that they are on the runway-side of the terminal (and are likely to cater only for the growth of the Air Transport Services sector).

5.33 With this excluded, the vacant industrial capacity under the Alternative Capacity Scenario reduces from an expected 59.7 ha to 36.5 ha in the Wakatipu Ward. This is located within ODP Frankton Flats B Precincts D and E1 and PDP Coneburn Industrial Zone according to the assumptions of the Alternative Capacity Scenario. When evaluated in this way, there is still sufficient industrial capacity in the medium term (18.4 ha of demand in 2028 (October 2018 growth projection excluding Air Transport Services) compared to 36.5 ha of vacant Industrial capacity), but a shortfall of capacity exists in 2048 of nearly -6 ha of Industrial capacity. Importantly, the likely projected shortfall of industrial capacity in the Wakatipu Ward, which will first occur sometime before 2048, cannot be transferred to the Wanaka Ward where there is a surplus of industrial capacity for a range of practical and geographic reasons. The Industrial Report provides further evidence on the limited trade of industrial goods between the two wards – reinforcing that the two areas act more or less independently of each other.

5.34 One further issue increases the potential for the Wakatipu Ward to experience a shortfall of Industrial capacity under current zoning and market supply trends. This relates to ownership of vacant industrial capacity in the ODP Frankton Flats B special zone.

5.35 Queenstown Airport Corporation Limited (**QAC**) own an estimated 13.36 ha of vacant land in the Frankton Flats B Special Zone. While

the rest of Frankton Flats B zone is developing at pace, it is notable that this land has not been touched as at January 2020.

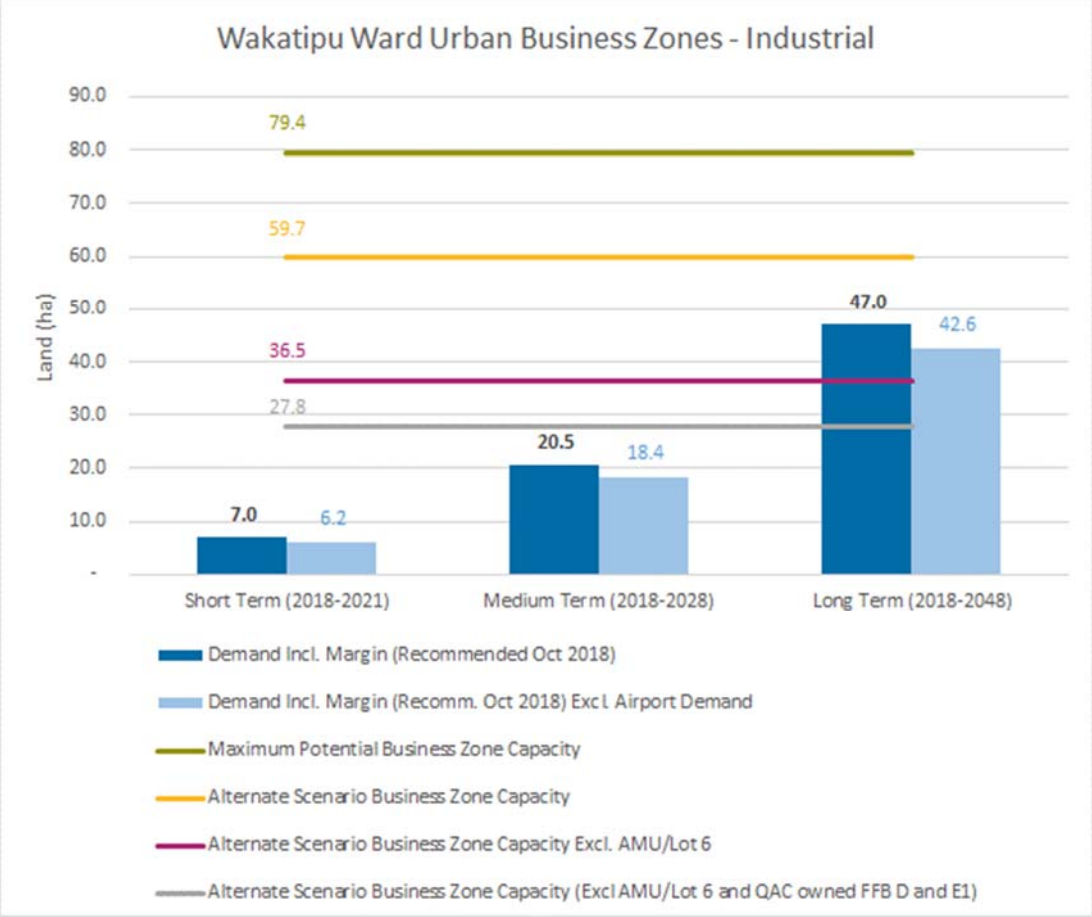
5.36 Under the Alternative Capacity Scenario, 8.68 ha of this is indicatively available for industrial land-use/building typologies[26]. It is possible that this QAC land will not be made available for general market industrial demand and QAC may choose to reserve the opportunity for this land to be used for airport related development or expansion in the future (i.e. land banking for future demand associated with the Air Transport Services sector).

5.37 **Figure 1**[27] shows that *if* this QAC owned vacant capacity cannot be relied upon to meet general market demand for industrial type development, then the long term shortfall of industrial capacity in the Wakatipu Ward would be worse by 2048 (-14.8 ha under the Alternative Capacity Scenario when considered cumulatively with the scenario where vacant land inside the airport is also removed).

26 I have assumed that 100% of QAC vacant capacity in Precinct D is allocated to industrial development and 50% of the QAC vacant capacity in Precinct E1 is allocated to industrial development.

27 For interpretation of this graph, the green and yellow capacity lines can be compared with the dark blue bar. The pink and grey capacity lines can be compared with the light blue bar. The latter is the key finding raised above.

Figure 1 - Updated Land Sufficiency by Ward and Category – Alternate Capacity Scenario - Excluding AMU Zone Capacity and Wakatipu Ward Air Transport Services Sector Demand and QAC Industrial Capacity in FFB Zone



5.38 The overall conclusion of this BDCA update is that the ODP and PDP (Decisions Version of Stages 1 and 2), countered by development of vacant capacity over the past two years, may not address sufficient long term capacity for Industrial land use development in the Wakatipu Ward. This is based on the assumptions applied in the model, including the Alternative Capacity Scenario and the uncertainty surrounding QAC owned industrial land.

6. IMPACT OF THE STAGE 3 NOTIFIED PROVISIONS ON THE OUTCOMES OF THE INTERIM BDCA UPDATE

6.1 I have considered the changes made through the notified Stage 3 provisions and zoning to urban business enabled zones and the impact that these changes have on vacant land and GFA capacity, and in turn sufficiency, as reported in the Interim BDCA Update discussed above.

6.2 The key Stage 3 changes and impacts to urban business enabled zones are few and can be described as follows:

(a) The ODP Industrial A and B zones are rezoned to GIZ. Included in this, the structure plan for the Tussock Rise land (Connell Terrace – Industrial B in the modelling) no longer distinguishes precincts A or B. Thus, under the notified GIZ there is a slightly greater area of developable land in this location.

(b) New areas of GIZ are zoned on Ballantyne Road (estimated remaining vacant developable land area of 8.36 ha) and at the end of Glenda Drive (previously zoned Rural and AMU Zone in the BDCA model respectively).

(c) The ODP Ballantyne Road Mixed Use Special Zone is rezoned for recreational open space. This removes this land from enabling business development. Under the Alternate Capacity Scenario assumptions, this is a loss of vacant industrial capacity from precincts C and D and a loss of commercial capacity from precincts B and E. A total loss of estimated vacant developable land area of 14.9 ha.

(d) The ODP Three Parks Special Zone has been notified in Stage 3 as a number of existing (and proposed) district plan zones (i.e. Medium Density Residential (**MDR**), GIZ etc) with associated changes to the location and type of business enabled zoning.

(e) The ODP Rural Visitor Zone in Arthurs Point is changed to MDR with a Visitor Accommodation Sub-Zone, with a reduction in business enabled zone area associated with rezoning to Rural (and Outstanding Natural Landscape (**ONL**)) and Building Restriction Areas. The vacant capacity reduces from 11.61 ha in January 2020 to 5.99 ha due solely to Stage 3 rezoning.

6.3 Because there are transfers between special zones and non-special zones as a result of Stage 3, the key outcome is the net change at the district level in terms of vacant capacity. In the model, the Stage 3 zoning reduces vacant developable land area in urban business

enabled zones by -19.12 ha across the district. The changes in Arthurs Point account for 29% of this net loss. Another key driver of this net loss is the changes modelled in Three Parks. The Stage 3 zoning removes an area of ODP Commercial Core precinct, Deferred Commercial Core precinct and the Tourism precinct. This is partially offset by the specific inclusion of a notified Visitor Accommodation Sub-zone.

6.4 Under the Maximum Potential Capacity Scenario (where vacant capacity can be counted towards more than 1 category according to zoning rules), total vacant land area in zones enabling Industrial type development/building typologies in the Wanaka Ward sums to 38.9 ha spread across the PDP BMUZ and the GIZ. This is a slight increase on this scenario under Stage 3 zoning compared to the ODP and PDP (Decisions Version on Stages 1 and 2) which summed to 36.6 ha. Maximum Potential vacant capacity for Commercial type development/building typologies is 59.3 ha, down from 72.9 ha prior to Stage 3 changes. Maximum Potential Vacant Retail capacity in the Wanaka Ward is up as a result of the Stage 3 changes.

6.5 In the Wakatipu Ward, total Maximum Potential Vacant land area in zones enabling Industrial type development/building typologies sums to 79.5 ha. This is a very minor increase over the same scenario in the ODP and PDP prior to Stage 3 (79.4 ha). Vacant Commercial capacity is down slightly under Stage 3 zoning in this ward and Retail capacity is up slightly.

6.6 I have considered the Stage 3 zoning changes on the vacant developable land area by broad category of land use under the Alternative Capacity Scenario (where the overlap of capacity is removed). Additional assumptions required for this scenario include allocation of all vacant capacity in the notified GIZ to industrial building typologies (due to the narrower focus for anticipated activities in the zone). This drives minor changes in the figures because under the ODP and PDP (Decisions Version on Stages 1 and 2) zoning rules in the model, vacant ODP Industrial A capacity in Arrowtown and Glenda Drive was previously allocated to commercial development based on recent trends, and the very small area of vacant capacity in the ODP

Industrial B Connell Terrace (Tussock Rise) precinct A was also allocated to commercial land use. All other rezoning in Stage 3 to existing PDP district plan zones applies consistent allocations.

6.7 Under this Alternate Capacity Scenario, total vacant land area in zones enabling Industrial type development/building typologies in the Wanaka Ward sums to 27.1 ha (out of a maximum capacity of 38.9 ha). This is a slight (0.07 ha) decrease over the pre-Stage 3 zoning. Vacant Commercial capacity sums to 31.9 ha (out of a maximum capacity of 59.3 ha). Under the pre-Stage 3 zoning, this was higher at 45.4 ha. Vacant Retail capacity sums to 25.8 ha (out of a maximum capacity of 52.9 ha). Under the pre-Stage 3 zoning, this was higher at 37.9 ha.

6.8 Under this Alternate Capacity Scenario, total vacant land area in zones enabling Industrial type development/building typologies in the Wakatipu Ward sums to 60.2 ha (out of a maximum capacity of 79.5 ha). This is a slight (0.5 ha) increase over the pre-Stage 3 zoning. Vacant Commercial capacity sums to 132.8 ha (out of a maximum capacity of 170.3 ha). Under the pre-Stage 3 zoning, this was higher at 138.9 ha. Vacant Retail capacity sums to 40.6 ha (out of a maximum capacity of 66.0 ha). No change from the pre-Stage 3 zoning.

6.9 To test zone sufficiency outcomes under notified Stage 3 zoning, the demand projection is the same as modelled previously for the update (October 2018 Growth Projection and 2018 base year). The key change to assess therefore is the vacant capacity by category. For the Maximum Potential Capacity Scenario, the notified Stage 3 changes do not alter the conclusions of sufficient long term vacant land capacity to cater for projected demand (inclusive of a margin) for all categories in both wards.

6.10 For the Alternative Capacity Scenario (**Table 1**) that removes the double counting of vacant capacity across the land use categories, the notified Stage 3 changes do not alter the conclusions of sufficient long term vacant land capacity to cater for projected demand (inclusive of a margin) for all categories in both wards.

Table 1 - Stage 3 Land Sufficiency by Ward and Category – Alternative Capacity Scenario

Category by Ward	Cumulative Land Demand (Ha)			Total Vacant Business Zone Land 2020 (ha) *	Sufficiency		
	Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)		Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)
Commercial							
Wakatipu	6.4	17.7	37.9	132.8	Sufficient	Sufficient	Sufficient
Wanaka	2.1	5.6	11.0	31.9	Sufficient	Sufficient	Sufficient
TOTAL	**8.5**	**23.3**	**48.9**	**164.7**	Sufficient	Sufficient	Sufficient
Retail							
Wakatipu	2.8	7.9	17.3	40.6	Sufficient	Sufficient	Sufficient
Wanaka	1.1	3.0	5.9	25.8	Sufficient	Sufficient	Sufficient
TOTAL	**3.9**	**10.9**	**23.2**	**66.4**	Sufficient	Sufficient	Sufficient
Industrial							
Wakatipu	7.0	20.5	47.0	60.2	Sufficient	Sufficient	Sufficient
Wanaka	1.8	5.3	12.3	27.1	Sufficient	Sufficient	Sufficient
TOTAL	**8.8**	**25.8**	**59.3**	**87.3**	Sufficient	Sufficient	Sufficient

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E

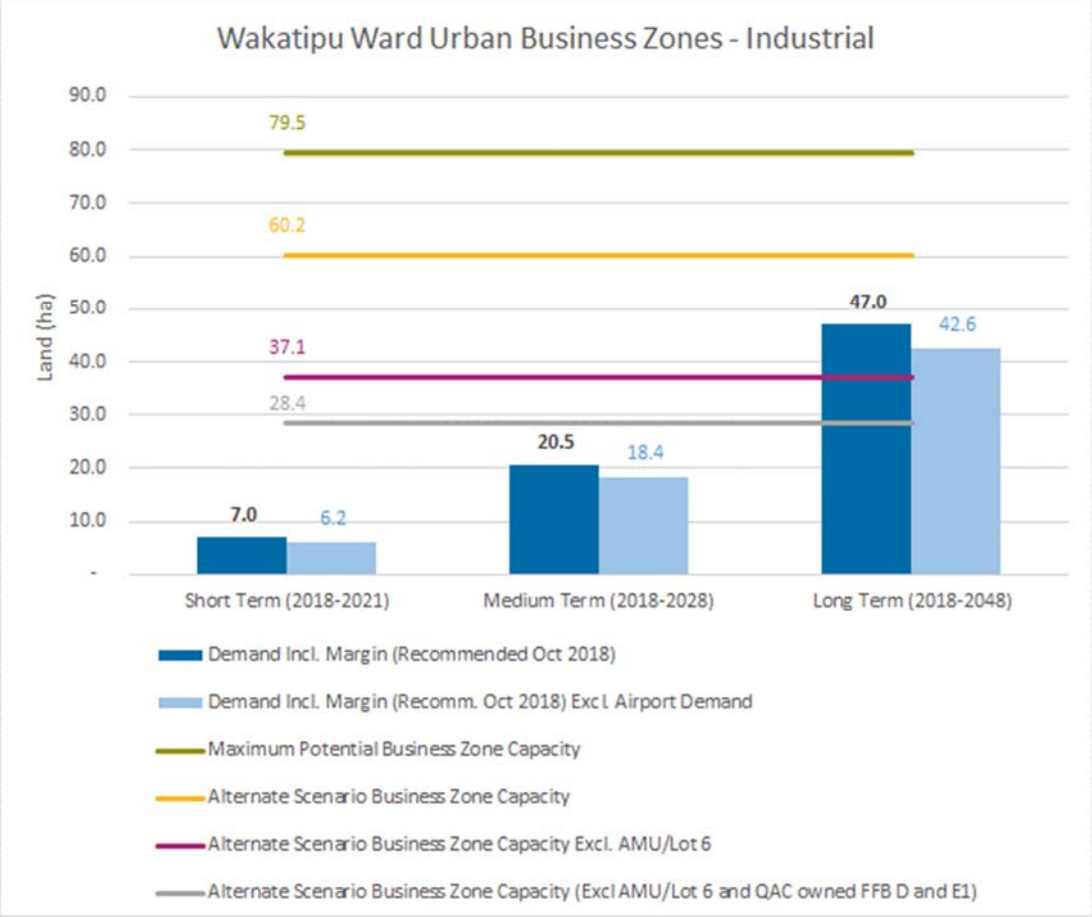
*Projected demand and current capacity within core business enabled zones in defined urban environment only. Wakatipu Ward includes both Queenstown and Arrowtown Wards. * Overlap in capacity has been removed, refer to the scenario assumptions in appendices.*

Capacity Scenario: ***January 2020 Zone (Consolidated District Plan Plus Other Changes and Proposed Stage 3)***

6.11 When I remove both demand for Air Transport Services in the Wakatipu Ward and the vacant capacity in the airport area (combined PDP Rural/AMU Zone and Lot 6), the notified Stage 3 changes do not alter the conclusions of insufficient long term vacant industrial capacity in the Wakatipu Ward to meet projected industrial demand (inclusive of a margin). This is summarised in **Figure 2** (pink line).

6.12 Nor do the notified Stage 3 changes alter that outcome when QAC owned land in ODP Frankton Flats B Zone is also removed from vacant industrial capacity in the Alternative Capacity Scenario, as shown below for Wakatipu Ward (grey line, **Figure 2**).

Figure 2 - Stage 3 Land Sufficiency by Ward and Category – Alternate Capacity Scenario - Excluding AMU Zone Capacity and Wakatipu Ward Air Transport Services Sector Demand and QAC Industrial Capacity in FFB Zone



6.13 The overall conclusion of this BDCA update for Industrial capacity is that the notified Stage 3 changes to the ODP and PDP (Decisions Version on Stages 1 and 2) results in the exact same long term surplus of capacity in the Wanaka Ward under the Alternative Capacity Scenario (14.8 ha by 2048). That is, the notified changes have had the same net result. Losses and gains in zone area equate to the same vacant land area.

6.14 In the Wakatipu Ward, and under the most conservative scenario (i.e. Alternative Capacity Scenario with airport and QAC owned land in Frankton Flats B Zone removed), the notified Stage 3 zone changes have marginally reduced the long term shortfall of industrial capacity (-14.2 ha). Any further changes to the notified GIZ areas as a result of submissions will further amend these results.

7. THE STRATEGIC ROLE OF THE GENERAL INDUSTRIAL ZONE

7.1 The notified GIZ is one of a number of zones that will provide capacity for businesses within the QLD. It is important that the notified provisions of the GIZ are not considered in isolation of other business chapters of the district plan or other business zones.

7.2 The GIZ objectives establish a clear role for the notified GIZ areas. This role is economically significant and one that needs to be protected through regulation as the market will fail to provide land for less intensive land uses (at a price they can afford), particularly when growth is strong and competition for space within or in close proximity to the urban area is high. This is referred to as a market failure.

7.3 The notified objectives of the GIZ respond directly to the key issues facing the industrial economy (as discussed in the Industrial Report and covered in the s32 report), This includes pressure on the ongoing commercial viability of industrial and service activities in business zones arising from development trends in operative industrial zones, particularly the ODP Industrial A zone.

7.4 The role of the GIZ complements the role of other business enabled zones. While there is some overlap/flexibility, activities appropriate to QLD that are precluded in one zone are provided for in other zones. This is evident in a high-level analysis of the activity tables in a selection of key business enabled zones. **Table 2** covers commonly referred to activities as defined in the PDP and it shows that every activity is permitted in one or more zones. This allocation across zones helps sustain economic activity and a diverse economic structure and provides an ability to better manage effects. The same applies to the activities anticipated in and precluded from the notified GIZ.

Table 2 – Comparison of Activity Status for Key Activities Across a Sample of QLD Zones – Alternative Options for Prohibited and Non Complying Activities in the GIZ

Common PDP Defined Activities	Notified GIZ	BMU Zone	Coneburn Industrial Zone	Town Centre (Wanaka Example)	Notified Three Parks Commercial Zone
Industrial	P	NC / PR	P	NC	NC
Service	P	RD/NC/PR	P	P	NC
Liscensed Premises	P	RD	NC	RD	RD
Food and Beverage	P	P	P	P	P
Outdoor Storage	P	RD	NC	P	RD
Office	PR *	P	Ancillary P	P	P
Retail	PR *	P	P**	P	<500sqm GFA D
Commercial	PR *	P	NC	P	P
Commercial Recreation	NC	P	NC	P	NC
Community Activity	NC	P	NC	P	NC
Community Facility	NC	P	NC	P	NC
Large Format Retail	PR	P	NC	P	P
Trade Supplier	PR	RD	P	P	P
Visitor Accommodation	PR	C	PR	C	NC

Source: M.E / Consolidated District Plan Activity Status Tables. Classification is high level only and does not factor in site standards.
** Ancillary to an industrial or service activity is Permitted.*
*** Retail of goods produced, processed or stored on site only. Else prohibited.*

7.5 The narrow role of the notified GIZ – focussed on providing for industrial and service activities, is considered appropriate on the basis that non-complying and prohibited activities are provided for in other zones, particularly the BMUZ. The Interim BDCA Update confirms that the urban business enabled zones under the ODP and PDP (Decisions Version on Stages 1 and 2) and again under the stage 3 notified zoning framework, provide sufficient long term capacity for Commercial activity growth, which includes office based demand, and retail activity growth.

7.6 If the notified GIZ was amended to a very permissive regime, this would in my view start to duplicate the role of other business zones and will distribute office and retail activity (for example) over a wider area and more locations. This prevents the concentration of activities in particular locations where benefits can be maximised and externalities can be managed. A permissive regime in the GIZ is likely to dilute (but not necessarily undermine) the role of other zones. Most importantly, a permissive regime in the GIZ will not address the issues of the past observed in the ODP industrial zones.

7.7 Commercial, office and retail activities for example have a key functional role in other zones and achieving a concentration of those

activities in those zones will contribute to the outcomes intended for those zones, including social amenity and vitality in those locations.

7.8 I consider it important that QLD moves forward with a clearly defined industrial zone that can accommodate the projected growth of the industrial economy, and particularly those industrial and service activities that are dependent on a zoned location where their effects can be managed; they are protected from reverse sensitivity effects; and their commercial viability can be sustained. On that basis, I support the notified objectives of the GIZ.

8. POTENTIAL ECONOMIC EFFECTS ON EXISTING NON-INDUSTRIAL AND SERVICE ACTIVITIES AND LANDOWNERS IN THE GIZ

8.1 A number of submissions have raised concerns about the notified provisions for the GIZ that make office, commercial, retail and residential activities prohibited and community activities and commercial recreation activities non-complying, and what this may mean in terms of an ability to replace tenants and impacts on property value. The submissions raise concerns about the impact of these rules on existing activities of this nature. At the outset I acknowledge the relevance of lawfully established activities (i.e. existing use rights and consented activities), and while I note that Mr Place considers this in his s42A, I do consider the impact of these rules on the growth of those existing activities.

8.2 I have used a combination of the Council's ground truthing data for predominant activities in ODP industrial zones notified as GIZ and my own site visits of remaining areas notified as GIZ to estimate the count and share of total activity that would be categorised as prohibited and non-complying (**Table 3**) in the GIZ.

Table 3 – Analysis of Existing Activities that would fall within the Prohibited and Non-Complying rules, from the Notified GIZ Areas by Location

		Council Ground Truthing Data **				M.E Data		
Predominant Activity on Site *	Notified GIZ Provisions	Wanaka Industrial	Wanaka Industrial B	Glenda Drive Industrial	Arrowtown Industrial	Three Parks Proposed GIZ ***	New Ballantyne Rd Proposed GIZ ***	Total Proposed GIZ Areas
Office	Prohibited	16	11	59	4	6	0	96
Industrial	Permitted	4	3	17	0	0	1	25
Light Industrial	Permitted	18	7	18	4	1	0	48
Outdoor Storage	Permitted	3	0	3	1	0	0	7
Commercial (Incl Trade Suppliers)	Prohibited	3	2	42	2	8	0	57
Commercial (Food & Beverages)	Permitted	0	0	2	0	1	0	3
Service Activity	Permitted	23	12	63	10	2	1	111
Retail	Prohibited	3	0	1	0	0	0	4
Commercial Recreation	Non-Complying	3	1	1	0	1	0	6
Community Activity	Non-Complying	1	0	0	0	0	0	1
Yard Based Industrial	Permitted	2	0	1	0	0	0	3
Yard Based Service Activity	Permitted	1	0	3	3	0	3	10
Yard Based Storage	Permitted	0	0	0	0	0	0	0
Total Predominant Business Activity		77	36	210	24	19	5	371
Residential	Prohibited	12	3	26	8	0	0	49
Total Activity Including Residential		89	39	236	32	19	5	420
Sub-Total	Prohibited	34	16	128	14	14	0	206
Sub-Total	Non-Complying	4	1	1	0	1	0	7
Total		**38**	**17**	**129**	**14**	**15**	**0**	**213**
Prohibited/Non-Complying as a share of total activity		43%	44%	55%	44%	79%	0%	51%

** Does not take account of ancillary activities - the provisions make some allowance for ancillary activity*

*** Based on extent of Operative Zone Area and not proposed GIZ area.*

**** Based on site visit and Three Parks 'What's Here' web page - includes businesses coming soon. Classification approximate only. Office includes single count for almost completed office building (this may be occupied by multiple businesses).*

Based on definitions in the Operative District Plan

8.3 The results show that based on currently developed and occupied tenancies (and some recognition of developments nearly ready to be occupied in the ODP Three Parks Business precinct):

(a) In the Wanaka ODP Industrial A zone, a total of 34 activities exist that would be categorised as prohibited (including 12 residential units) and a further 4 non-complying. This is a total of 38 activities or 43% of the total. There is a small number of vacant sites in this zone area (including sites under construction). This means that if all remaining sites were developed with activities that are permitted in the GIZ, then the share of prohibited and non-complying activities would account for a share of total activity slightly lower than 43% once fully developed and occupied.

(b) In the Wanaka ODP Industrial B zone, a total of 16 activities would exist that would be categorised as prohibited (including 3 residential units) and a further 1 non-complying. This is a total of 17 activities or 44% of the total. There is a large

number of vacant sites in this zone area (including sites under construction). This means that if all remaining sites were developed with activities that are permitted in the GIZ then the share of prohibited and non-complying activities would account for a share of total activity significantly lower than 44% once fully developed and occupied. That is, the mix of activities would be dominated by industrial and service activities as intended by the GIZ.

(c) In the Glenda Drive ODP Industrial A zone, a total of 128 activities would be prohibited (including 26 residential units) and a further 1 non-complying. This is a total of 129 activities or 55% of the total. There is a small number of vacant sites in this zone area (including sites under construction). This means that if all remaining sites were developed with activities that are permitted in the GIZ, then the prohibited and non-complying activities would account for a share of total activity slightly lower than 55% once fully developed and occupied.

(d) In the Arrowtown ODP Industrial A zone, a total of 14 activities would be prohibited (including 8 residential units). None would be non-complying based on the data available. This is a total of 14 activities or 44% of the total. There is only one small vacant site in this zone area. This means that if the remaining site was developed with an activity that is permitted in the GIZ then the share of prohibited and non-complying activities would account for a very similar share of total activity once fully developed and occupied (i.e. 44%).

(e) In the ODP Three Parks Business precinct (the area notified as GIZ in Stage 3), a total of 14 activities would be prohibited and a further 1 non-complying[28]. This is a total of 15 activities or 79% of the total. There is a moderate number of vacant sites in this zone area, although 8 of these subdivided lots are currently under construction and it is unknown how many others may already have consents in this rapidly developing area. If all remaining vacant/under construction sites were developed with activities that are permitted by the GIZ, then the prohibited and non-complying activities would account for

28 Refer footnotes of Table 3.

a share of total activity lower than 79% once fully developed and occupied. Potentially more than half of total future activities could be industrial and service activities under that outcome. However, if many of the already consented but undeveloped sites are for activities that would be prohibited or non-complying in the GIZ, then the share of total future activity could rise above 79% that is prohibited or non-complying. There is a high probability that the Three Parks GIZ would have only a minor share of total land use as industrial or service activity.

(f) In the proposed new GIZ area on Ballantyne Road, there are currently no existing activities that would be categorised as prohibited, or non-complying based on my understanding of how these few existing activities are classified. There is significant potential for future greenfield development in this zone area. if all remaining sites were developed with activities that are permitted in the GIZ then the share of prohibited and non-complying activities would remain zero. This area would be a 'pure' industrial and service area under the GIZ.

Existing Activities - potential or actual economic effects

8.4 The change in activity status for all but the new GIZ area on Ballantyne Road (where existing businesses have been enabled through resource consents in the Rural Zone) does leave a large number of existing businesses with prohibited or non-complying status. I have considered the potential or actual economic effects of that outcome at a high-level.

8.5 Of key relevance is the relationship between current activities and the buildings that they occupy. Office activities generally occupy office spaces and retail activities generally occupy shop spaces. It is highly likely that such premises would be unsuitable for industrial or service activities now or in the future. They are often not flexible or adaptable in their design (being specifically built for one purpose), are often small tenancies and office (and residential) units may also be above the ground floor. Conversely industrial and service activities commonly rely on larger built premises, single storey (ground floor) with high roof spaces, garage door type access, potentially outdoor yard or storage

space, and areas for manoeuvring vehicles. Most are likely to require ancillary office space and some may require ancillary commercial space or retail space.

8.6 It is my understanding that lawfully established activities will either operate under a resource consent or have existing use rights. Those rights are tied to the use of the land and not the individual businesses that occupy that land – which may change without altering those rights.

8.7 This means that while there are a large number of office, retail and residential activities in some areas being proposed for rezoning to GIZ (**Table 3**), those sites can continue to operate with office, retail, commercial and residential activities in the future (assuming they were lawfully established). This is a business as usual outcome – these landowners are no better or worse off. If businesses leave, new tenants can be attracted and the GIZ provisions do not preclude that from occurring. There is no impact on the ability to use the current building stock efficiency and there are no costs to landowners of those buildings. Only opportunity costs if they were intending to increase the scale and intensity of activity on site at some time in the future.

8.8 There are potential opportunity costs to owners of existing industrial and service sites that may have chosen to redevelop their site to attract higher value activities (i.e. increase the intensity of development on the site to supply office, retail, commercial and/or residential space instead of industrial and service space). The wider economic benefits of preventing redevelopment that displaces industrial and service activity are considered to outweigh the potential opportunity costs to relatively few landowners who may have been contemplating such redevelopment.

8.9 Of relevance, the BDCA modelling of industrial zone sufficiency considers only growth of new activity. It has not considered the sufficiency of current vacant capacity to accommodate future growth and displaced current activity. It assumed that existing activity could remain in-situ. In my view, the notified GIZ rezoning is essential to help ensure that is the case.

8.10 There are also potential opportunity costs to owners of vacant sites that do not already have land use consents in the rezoned areas where they may have preferred/planned to develop those sites to a higher value (higher return) land use in the future and instead are required to develop their site(s) for those activities permitted in the GIZ. Again, the wider economic benefits of maintaining vacant capacity so that is it available for industrial and service activity growth are considered to outweigh the potential opportunity cost to relatively few landowners.

8.11 Another relevant issue is whether the notified GIZ provisions will adversely affect the commercial viability of those existing activities that become prohibited or non-complying. As all areas identified for rezoning already include a number of activities permitted under the GIZ provisions (**Table 3**), the operating environment and amenity of the zones is already established. I consider it unlikely that the development of additional industrial, service and food and beverage outlets on vacant sites in the GIZ areas would materially change that operating environment. As such, the potential of the rezoning to adversely impact on the viability of existing retail and commercial businesses would be very low. Those same businesses may also benefit from further development of vacant sites under the GIZ.

8.12 It is expected that the rezoning of ODP Industrial A zones to GIZ would increase the number of industrial and service activities on currently vacant (unconsented) sites. This may reduce the amenity of the zone for existing residential units. However, as industrial and service activities were enabled in the ODP Industrial A zone, such outcomes should have been anticipated. The GIZ provisions do not alter the potential for vacant capacity in the zoned area to develop as industrial or service activities, just the likelihood.

8.13 Overall, I consider that the existing use rights / existing resource consents of already developed sites in the notified GIZ areas on the plan maps mitigates any potential direct or consequent economic effects on landowners. The economic benefits of the notified GIZ – which ensure that vacant capacity is available to meet the demand of industrial and service growth over the life of the plan (the medium term) and potentially beyond, are expected to outweigh the potential

opportunity costs for existing landowners in the zoned areas – keeping in mind that the GIZ does not impact on the commercial feasibility of development in these locations, only the intensity and land use of development (which can influence the relative return on investment and land value).

9. THE EFFECTIVENESS OF THE GIZ ON AREAS ALREADY DEVELOPED

9.1 A number of submissions queried the benefit of rezoning areas that are already extensively developed, to GIZ. The term 'lost cause' was used. I have touched on this issue in the section above but expand the evidence further below.

9.2 The analysis in **Table 3** combined with the data on vacant capacity in the Interim BDCA Update in each location (discussed in paragraphs 8.3 a-f above) supports my view that the potential to achieve the notified objectives of the GIZ will not be equal across QLD.

9.3 It is important to clarify the processes through which the notified GIZ will have an effect on future development:

(a) For vacant (and unconsented) sites – the GIZ provisions will ensure that capacity is available for growth of industrial and service activities. This is important because the industrial economy is projected to have above average growth over the long term and there is a high and significant risk that the market will not supply land at a price that industrial and service activities can afford in zones that have a permissive regime. The costs of rezoning vacant sites to GIZ are therefore the opportunity costs to landowners for more intensive/higher value development under the operative provisions or some other mixed use/permissive alternative (discussed above). There is also the cost of a potential reduction in vacant capacity to accommodate commercial, retail, community recreation and community activity growth in the short, medium and long term in rezoned GIZ areas. To that extent, any loss of Commercial capacity (for example) is minor (-14.2 ha or -6% under the Maximum Capacity

Scenario of the BDCA Update and Stage 3 implication modelling[29]). This cost is mitigated by the sufficient capacity provided in other zones in the district to accommodate growth in these activities and the benefits that arise from consolidating those activities in zones where such development is the intended outcome.

(b) For existing industrial and service sites, including those already consented and those under construction – the GIZ provisions will avoid the redevelopment (conversion) of these sites for higher value land uses at some point in the future. The commercial feasibility of redevelopment requires a net gain in long term financial return in order to justify the short term redevelopment costs. Conversion of sites to higher value land uses is likely to lead to the displacement of existing industrial and service activities. As discussed above, this generates potential opportunity costs to landowners and places greater pressure on finding suitable capacity for displaced industrial and service activities (in addition to growth). The GIZ rezoning helps ensure that the existing industrial and service zone capacity is maintained in situ and the commercial feasibility of existing industrial and service activities is secure.

(c) For existing non-industrial and service sites (i.e. activities that would be non-complying or prohibited under the notified GIZ) – the GIZ provisions are expected to have no impact on these activities as a result of existing consents and existing use rights. These sites can continue under a business as usual future. They can continue to contribute to the functional and social amenity of the zones and contribute to social and economic wellbeing. The effect of the rezoning neither increases or decreases the zone capacity for industrial and service activity and costs are limited to opportunity costs to landowners or businesses that want to intensify the scale of nature of activity.

29 Loss of Maximum Potential Vacant Commercial developable area in ODP Industrial A, B and Three Parks Business precinct if zoned to GIZ. Based on all vacant sites (January 2020) including those under construction and those that may already have consent. If some sites under construction and already consented are going to cater for Commercial land uses, the net loss of potential commercial capacity is overstated.

9.4 Effect (a) above is the most significant benefit of the rezoning of existing zone areas because it directly supports growth of the industrial economy while also supporting the role of other zones. Current estimates of developable vacant land area in the GIZ locations are summarised below (**Table 4**).

Table 4 – Detailed breakdown of vacant developable land area (estimates) in proposed GIZ as at January 2020

Operative Zone Identifier / Location of Proposed GIZ	Ward	Notes	Estimated Vacant Developable Area (ha) January 2020	Share of Total District Vacant GIZ Capacity
Industrial	Wanaka		1.49	5%
Industrial B	Wanaka		1.03	4%
Industrial B Tussock Rise *	Wanaka	Stage 3 includes Operative Precinct B	6.07	22%
Industrial B Ballantyne Ridge **	Wanaka		4.68	17%
New GIZ Ballantyne Road	Wanaka	Previoulsy Rural Zone	8.36	30%
Three Parks GIZ	Wanaka	Previously Business Precinct Three Parks Special Zone	5.44	20%
Sub-Total Wanaka			27.07	98%
Industrial	Wakatipu	Glenda Drive	0.53	2%
Industrial	Wakatipu	Arrowtown	0.03	0%
Sub-Total Wakatipu			0.56	2%
Total District			27.63	100%

Source: BDCA January 2020 Update, M.E, Provisional Results.

** Otherwise identified as the Connell Terrace Structure Plan area in the BDCA model.*

*** Otherwise identified as the Ballantyne Road Structure Plan area in the BDCA model.*

9.5 In Wanaka there is a sizeable area of vacant capacity at stake (27.07 ha based on notified GIZ areas which is 98% of total vacant GIZ capacity in the QLD) and only small areas of vacant capacity in Glenda Drive and Arrowtown.

9.6 Effect (b) above has moderate significance. Derived from **Table 3** (section 8), the count/share of permitted activities that would be protected by the GIZ provisions are as follows (**Table 5**):

Table 5 – Estimated count of current industrial and service activities in proposed GIZ as at January 2020

		Council Ground Truthing Data **				M.E Data		
Predominant Activity on Site *	Notified GIZ Provisions	Wanaka Industrial	Wanaka Industrial B	Glenda Drive Industrial	Arrowtown Industrial	Three Parks Proposed GIZ ***	New Ballantyne Rd Proposed GIZ ***	Total Proposed GIZ Areas
Industrial	Permitted	4	3	17	0	0	1	25
Light Industrial	Permitted	18	7	18	4	1	0	48
Outdoor Storage	Permitted	3	0	3	1	0	0	7
Service Activity	Permitted	23	12	63	10	2	1	111
Yard Based Industrial	Permitted	2	0	1	0	0	0	3
Yard Based Service Activity	Permitted	1	0	3	3	0	3	10
Yard Based Storage	Permitted	0	0	0	0	0	0	0
Total Industrial and Service Permitted Activity		51	22	105	18	3	5	204
Share of total current predominant activity		57%	56%	44%	56%	16%	100%	49%

** Does not take account of ancillary activities - the provisions make some allowance for ancillary activity*

*** Based on extent of Operative Zone Area and not proposed GIZ area.*

**** Based on site visit and Three Parks 'What's Here' web page - includes businesses coming soon. Classification approximate only. Office includes single count for almost completed office building (this may be occupied by multiple businesses).*

Based on definitions in the Operative District Plan

9.7 In total 204 predominant industrial and service activities (including storage and yard based activities) could benefit from the notified GIZ provisions. Specifically, the proposed approach to move away from a flexible or permissive regime that enables mixed use development in areas where industrial and yard based activities in particular are dealing with the pressure of rising land values. This is nearly half (49%) of all predominant activities in notified GIZ areas.

9.8 When considering each of the ways (a-c above) in which the rezoning can have an effect, the rezoning of already developed zones is not in my view a "lost cause". There are economic benefits but also some economic costs to existing landowners. Delivering these benefits is very important for the sustainability of QLD's industrial and wider economy over time as well as the overall efficiency of the zoning framework (i.e. the ways that different zones cater for complementary roles). I consider that the benefits of the notified GIZ over the medium to long term will outweigh any cost over that period.

9.9 I therefore support the rezoning of existing ODP Industrial A and B zones to GIZ as notified and do not recommend the retention of operative zones or a change to BMUZ, nor a more permissive GIZ regime in these locations. Such relief does not address the issues that the notified GIZ is intending to resolve (discussed in the s32).

ODP Three Parks Business precinct

9.10 I do however consider that the notification of the ODP Three Parks Business precinct as GIZ may have only marginal benefits. The ODP Three Parks Business precinct has very few existing industrial and service activities that would benefit from protection under the GIZ provisions. This area is also very recently developed and is unlikely to be commercially feasible to redevelop in the life of the PDP (nor in the next 20-30 years (the long term)). This mitigates the risk that existing industrial and service sites (which are few) may be redeveloped to a higher value land use.

9.11 While there is vacant capacity in this ODP Three Parks Business precinct (estimated at 5.44 ha in January 2020), a moderate share of this (24% or 1.31 ha) is already under construction (consented) and the notified GIZ provisions cannot influence the land use of those sites. I am also not aware of what other sites may have already received consent but have yet to start construction. On balance, the rezoning of the ODP Three Parks Business precinct to a mixed use zone that aligns better with existing activities in this location may be more efficient. The potential loss of vacant capacity for industrial land use would be moderate for the Wanaka Ward (-20% in gross terms). The modelled Stage 3 long term surplus of industrial zone capacity over and above demand plus a margin in the Wanaka Ward is nearly 27 ha under the Maximum Capacity Scenario and 15 ha under the Alternative Capacity Scenario. In other words, removal of the ODP Three Parks Business precinct from the GIZ will still show a surplus of industrial capacity for growth in the long term.

10. THE ROLE OF TRADE SUPPLIERS AND IMPLICATIONS OF GIZ

10.1 I have been asked to provide evidence on trade suppliers and the potential economic effects of prohibiting these activities in the notified GIZ versus making some provision for trade suppliers to locate in the GIZ. I have also considered how potential provision for trade suppliers (or a sub-set of trade suppliers) in the GIZ might be approached so that the purpose of the GIZ is still achieved and effects within the zone and on other zones are appropriately managed.

What is a trade supplier?

10.2 Trade suppliers are defined in Chapter 2 of the PDP as follows:

Trade Supplier	Means a business that is a mixture of wholesaling and retailing goods in one or more of the following categories: a. automotive and marine suppliers; b. building suppliers; c. catering equipment suppliers; d. farming and agricultural suppliers; e. garden and patio suppliers f. hire services (except hire or loan of books, video, DVD and other similar home entertainment items); g. industrial clothing and safety equipment suppliers; and h. office furniture, equipment and systems suppliers.

10.3 In accordance with that definition, trade suppliers are businesses that sell products (goods as distinct from services) or hire out equipment directly to other businesses.

10.4 The business to business transactions carried out by trade suppliers is usually a wholesale-type arrangement. Customers of a trade supplier typically have a trade account. Prices are often discounted from the full retail price to reflect the frequent and bulk nature of the transactions. Transactions are typically completed with an invoice for later payment as opposed to a cash payment at the time. An ability to offer a trade price is also facilitated in many cases (but not all) by a premises layout and format that is more cost effective and less orientated to visual appeal and shopper experience as is the case in retail stores. These savings can be passed onto the customer.

10.5 Not all transactions with trade suppliers require an in-person visit. Many orders will be processed on the phone, by email or online. This is because the customers typically have a good knowledge of what is available and what they need. Goods are then delivered by the trade supplier or are picked up and delivered by a courier. And while it may be more typical for smaller goods to be picked up in store (including small orders of bulky goods that may be managed on a trailer or roof racks), large orders for bulky goods are also likely to be delivered. Trade suppliers selling bulky goods therefore generate trips made by

trucks or vehicles towing trailers. Because many trade suppliers sell a large volume of goods (i.e. a high volume coming in and a high volume going out), they are also likely to receive goods by larger trucks (than say many retailers) and more frequently. These are all relevant considerations in terms of the traffic related effects of different types of trade suppliers and the sort of access and on-site parking/manoeuvring they may require.

10.6 Due to the definition in the PDP, all trade suppliers are wholesalers (in whole or in part), but not all wholesalers are trade suppliers. Examples of the sorts of businesses that regularly purchase goods sold by trade suppliers under the PDP definition are summarised below:

(a) construction related trades (e.g. building, electrical, plumbing, roofing, painting and plastering)
(b) automotive related trades, (e.g. mechanical and repair services, panel beating and auto electrical services)
(c) marine related trades (e.g. boat building and boat repair and maintenance services).
(d) Commercial farms and horticultural businesses/landowners as well as lifestyle block owners.
(e) Landscaping and gardening service businesses.
(f) Institutional customers, particularly district councils who purchase furniture and office equipment, garden supplies, cleaning supplies and other supplies for building and maintenance services.
(g) Event organisers, in the case of equipment hire (marquees, chairs, tables, glassware, cookware etc).
(h) Food and beverage activities (e.g. bars, restaurants, cafes, takeaways and clubs), commercial accommodation and cleaning services.

<u>A mix of wholesale and retail activity</u>

10.7 The PDP definition states that trade suppliers are a "*mixture*" of wholesaling and retailing goods. I consider the intended meaning of the definition is that trade suppliers may have a dual retail and wholesale role.

10.8 Retail sales are those to the general public. In terms of the relative mix between wholesale and retail, a spectrum will exist, and this is considered at a high level below:

(a) Some trade suppliers will be 100% wholesale.

(b) For some trade suppliers, sales to the general public will account for a small share of total sales and/or total transactions (say less than 10%). They are not the business' target customer, but any sales to the general public may be a bonus. Trade suppliers that fall into this category are less likely to be catering for the general public in terms of the look and format of the premises. One locational driver for such businesses will be suitable accessibility for their trade customers. A highly visible location is unlikely to be an essential consideration.

(c) For some trade suppliers, sales to the general public are essential for their commercial viability. General public sales will be a deliberate part of their business plan and marketing. They will be reliant on attracting retail customers to their premises, while also catering for their wholesale customers. How reliant a business is on general public sales (as a share of the total) will depend on the business. In a high growth economy such as QLD, the average annual retail share could anecdotally be between 10% and 70% of total sales, although I have no data to base this on. Given strong demand for trade suppliers, an annual average trade share of less than 30% is considered unlikely in this district (although I qualify this as I have insufficient data to validate this).

(d) In such stores, there may or may not be separate entrances, separate counters/check-outs and separate staff for trade and retail customers. Each business is unique. For some trade suppliers, catering for both retail and wholesale customers may not necessitate any physical or operational changes to the store that separate these roles. For others, a dual retail and wholesale role may be evident in terms of the physical form and layout of the premises. This may include a more

attractive display of goods for the general public relative to a store that was purely wholesale.

(e) In terms of the external appearance, a trade supplier that seeks to attract general public customers may prefer a more active frontage to their premises as a way of displaying goods for sale. However, even when a relatively large share of sales may be to retail customers, trade supply premises are unlikely to look the same as a typical 'shop'. Zone and site standards will be a key influence in the external appearance of any premises. For that reason, trade suppliers seeking to attract the general public may be more attracted to zones that enable premises that have a more 'showroom' design out front, while also allowing them to cater for their wholesale trade and storage and delivery requirements. Proximity to other activities frequently visited by the general public (i.e. shopping areas) may be a locational driver.

(f) For other trade suppliers, street appeal may not be an important requirement. Some stores will attract general public customers irrespective of their visual amenity or location – because of the demand for the specific products they sell.

10.9 The key point is that trade suppliers fall across a spectrum of pure wholesale at one end, to mainly retail with some wholesale at the other. Trade suppliers will also sit on a spectrum in terms of their physical form and scale – i.e. the type of premises they occupy. This will be determined by the nature of the goods they sell/hire and the degree to which they may need to have some street appeal.

10.10 Characteristics that are likely to be common across trade suppliers are the need for frequent delivery of goods to replace stock (often by larger trucks, although this does not apply to hire businesses). Most are also likely to require some inside warehouse or outdoor storage space. Most trade suppliers do not sell products that compete directly with core retail store types. The exceptions to this are those selling building hardware and supplies, garden supplies, office furniture and cookware. Of these, hardware and garden retail stores do not play a significant role in the Wanaka, Arrowtown or Queenstown town centres or local

shopping centre zones. They are likely to play a more significant role in the Stage 3 notified Three Parks Commercial Zone but overall, any retail distributional effects arising from trade suppliers that have a higher share of total sales to the general public are expected, on average, to be no more than minor.

10.11 To help illustrate the diversity of trade suppliers, below is an example of 4 trade suppliers in Wanaka's Anderson Heights area (confirmed BMUZ in Stage 1) (**Figure 3**). These businesses are on opposite sides of the street. On the top left is Hire Pool which hires out machinery and equipment to both trade and general public customers. A lot of the equipment is specialised (i.e. diggers or lifting machinery) and so I expect the major share of their customers are trade based (who have the required skills to operate such equipment). It is a yard based trade supplier with some inside (covered) space and office area.

10.12 Next to Hire Pool is Central Wholesale. This business is a wholesaler of hospitality equipment and cleaning supplies. Their premises include a small showroom where products are displayed. The general public can shop here[30] but this is expected to make up a minor share of total sales.

Figure 3 – Examples of Trade Suppliers in the BMUZ Wanaka (Google Street View)

30 The business also markets themselves as the Central Store for retail purposes.

10.13 Over the road (bottom image – **Figure 3**), on the left is Edward Gibbon/Reece Plumbing Centre. They supply plumbing and drainage products to wholesale customers and the general public can shop here too – although most likely focussed on bathroom and kitchen fixtures. Trade customers are directed to the rear of the building (i.e. there is a separate entrance for trade and retail customers).

10.14 To their right is Radcliffe Electrical. They are a wholesaler of electrical (and lighting) supplies. They have a range of light fittings on display (an informal showroom in the same space where electrical supplies are shelved) but it is my understanding that they do not sell directly to the public. Its footprint is dominated by warehouse space.

10.15 Below is a photo taken from outside Ideal Electrical in the ODP Three Parks Business precinct (notified as GIZ in Stage 3) (**Figure 4**). Unlike the other examples, this is not a standalone store, but is part of a strip of businesses. The premises have an active frontage, yet this is not for the purpose of attracting the general public. It is my understanding that this trade supplier is predominantly a wholesale business. Again, this shows that it is very difficult to characterise trade suppliers based on any physical characteristics.

Figure 4 – Three Parks Trade Supplier Example – Ideal Electrical

The role and growth of trade suppliers in the industrial and wider economy

10.16 The definition of trade suppliers in the PDP means that the range of likely business customers spans many sectors of the QLD economy not limited to industrial and service activities. As discussed above, trade supply customers can include institutional customers, event companies, office based businesses, hospitality and visitor accommodation businesses and to a lesser degree, the household sector. On that basis, the contribution that trade suppliers make to the district economy is wide-spread and potentially significant.

10.17 The construction industry dominates the QLD industrial economy and sustains a significant share of total economic activity. Trade suppliers directly support construction activity (as a provider of intermediate inputs). Growth in construction activity translates into increased demand for trade suppliers focussed on building supplies and the hire of machinery.

10.18 The presence of trade suppliers within the QLD reduces the cost of doing business as local goods can be sourced more conveniently (in terms of time and distance). This enhances productivity. Enabling trade suppliers in the urban environment contributes to economic efficiency.

10.19 The analysis contained in the M.E Industrial Report (appended to this evidence as **Appendix A**) captures trade suppliers within the broader wholesaling sector of the industrial economy. The wholesaling activities combined in that report are broader than just trade suppliers. It grouped wholesalers into the following: Basic Material Wholesaling; Machinery and Equipment Wholesaling; Motor Vehicle and Motor Vehicle Parts Wholesaling (the majority of trade suppliers fall into these three groups); Other Goods Wholesaling (trade suppliers of furniture fall into this group); Grocery, Liquor and Tobacco Product Wholesaling, and Commission Based Wholesaling. These last two groups do not relate to trade suppliers as defined in the PDP.

10.20 Notwithstanding that trade suppliers make up a portion of the wholesale sector in QLD's defined industrial economy, the Industrial

Report shows that there is strong growth in the wholesale sector, and this can be expected to continue. Specifically, the report showed that:

(a) The combined wholesaling sector (as defined in Appendix 1 of the Industrial Report) currently makes up a small share of total businesses in the QLD industrial economy (8% of businesses[31] and 9% of employment[32] (2017).

(b) Between 2013 and 2017, the combined wholesale sector had the highest percentage growth rate of businesses of all sectors in the industrial economy (46% or 48 net additional businesses compared to an average across all sectors of 19% and total economy business growth of 18% during that period)[33].

(c) While there are more wholesale businesses in the Queenstown-Wakatipu Ward in 2017 (83 compared to 68 in the Wanaka Ward), Wanaka's wholesale sector experienced more growth in the period 2001-2017 compared to Wakatipu (+51 wholesale businesses compared to +47, or 301% growth compared to 132% growth)[34].

(d) Due the strong growth rate for the wholesale sector, it is projected to account for a larger share of the industrial economy in the future.

Where are trade suppliers currently located?

10.21 In general, trade suppliers are businesses that typically have a functional need for a business enabled zone location[35].

10.22 **Table 2** above provides some examples of existing and proposed zones where trade suppliers are anticipated and precluded. Based on my understanding of the relevant activity tables, trade suppliers (often captured within commercial activities) are permitted in the PDP Town Centre Zones, including the notified Three Parks Commercial Zone. They are also permitted in the ODP Three Parks Business precinct

31 The defined wholesale sector in the industrial economy makes up 2% of all businesses in QLD.
32 The defined wholesale sector in the industrial economy makes up 2.1% of all businesses in QLD.
33 Refer page 61 of the Industrial Report.
34 Refer page 70 of the Industrial Report.
35 The exception to this may be suppliers of garden and patio products and suppliers of aggregate and other raw materials for the building and landscape industries. These may also be able to operate from the Rural Zone (subject to consent).

(notified GIZ in Stage 3) and the ODP Three Parks Business Main Street precinct (notified BMUZ in Stage 3). They are permitted in the ODP Business Zone (Gorge Road), PDP Local Shopping Centre Zone, the ODP Industrial A zone and PDP Coneburn Industrial Zone. They are restricted discretionary activities in the PDP BMUZ (discretion limited to appearance, access, parking, screening and landscaping) although prohibited in the new BMUZ in Frankton North, discretionary in the ODP Remarkables Park Zone and are non-complying in the ODP Industrial B zone and precincts D, E1 and E2 of the ODP Frankton Flats B Zone.

10.23 Overall, trade suppliers are enabled (to varying degrees) in a range of zone types, so long as they can meet the other zone and site standards. These zones anticipate different levels of effects and similarly, trade suppliers span a diverse range of activities and built forms/site requirements, so the flexibility provided appears appropriate. Some of these zones providing for trade suppliers have vacant capacity to cater for growth and others less so. Many of these zones have permissive activity regimes and so will limit the ability of more land extensive trade suppliers to compete. As a result of notified Stage 3 zoning, locations for trade suppliers will be more constrained compared to the ODP and PDP (Decisions Version on Stages 1 and 2).

Economic effects of prohibiting trade suppliers in the GIZ

10.24 The notified provisions of the GIZ prohibit trade suppliers. I have discussed above (sections 8 and 9) the broad economic costs and benefits of prohibiting non-industrial and service activities within the already developed areas proposed for rezoning and that evidence applies to existing and lawfully established trade suppliers (and the landowners of sites currently occupied by trade suppliers).

10.25 The key effect of prohibiting the development of new trade supplier activities in the GIZ will be the opportunity cost of developing on the remaining vacant lots in the OPD Industrial A zone and ODP Three Parks Business precinct (i.e. those sites not already consented for development). To a lesser extent, there is also the opportunity cost of

developing on the extensive vacant lots in the ODP Industrial B zone to be rezoned GIZ – acknowledging that trade suppliers were non-complying activities so were largely deterred in any case.

10.26 These opportunity costs are largely mitigated *if* there is equivalent capacity in alternate zone locations that are as attractive as the capacity that is no longer available[36]. The most feasible alternatives in the Wanaka Ward include the notified BMUZ in Three Parks (main street) and the limited capacity in the Anderson Heights BMUZ. In the Wakatipu Ward, the feasible alternatives are fewer (but equally the opportunity costs were also limited to a very small number of vacant sites in the ODP Industrial A zone). Coneburn is not yet development ready but will be feasible at some stage. In the short term, this leaves discretionary opportunities in Remarkables Park, a small amount of vacant capacity in the BMUZ and Business Zone in Gorge Road and non—complying development in the ODP Frankton Flats B Zone.

10.27 Overall, my contention is that under the notified stage 3 zoning there are still opportunities for further growth of trade supply activity, but these activities will have less choice of location than they do at present. This may impact on certain types of trade suppliers more than others.

Economic effects of enabling trade suppliers in the GIZ (as sought in submissions)

10.28 The anticipated economic benefits of enabling (i.e. permitting) trade suppliers in the notified GIZ (as sought in submissions) would be:

(a) It would provide a greater choice of zone locations – giving greater flexibility to where trade suppliers can establish, particularly more land extensive trade suppliers (including those that are yard based, sell bulky goods and/or require areas of outdoor storage). Such businesses would be able to compete less effectively for land in mixed business zones (as is the case for industrial and service activities that have similar land use requirements). Enabling trade suppliers in the GIZ

36 Opportunity costs for some landowners are offset by opportunity benefits for other landowners as trade suppliers are redirected to other zones.

would help to reduce any potential risk that growth of trade supply activity will be constrained in the future.

(b) It would retain the potential for new trade suppliers to develop on vacant sites in the rezoned ODP Industrial A zone, ODP Industrial B zone and ODP Three Parks Business precinct (opportunity costs are avoided).

(c) It could increase the certainty of trade supply development in the rezoned ODP Industrial B zone *if* the activity status is more enabling than the operative non-complying status.

(d) It would provide access to greenfield capacity south of the oxidation pond site that would not otherwise have been available to trade suppliers in the Wanaka Ward (unless approved via consent). As this will be subdivided under the proposed GIZ minimum lot sizes (1,000sqm or 500-1,000sqm as a discretionary activity), more land extensive trade suppliers could be expected in this area.

(e) It would provide additional opportunities for some trade suppliers and some industrial and service trade customers to locate in close proximity to each other, although this may be only a minor reduction in travel distance compared to the nearest alternative zone.

(f) Fewer businesses in existing developed areas zoned GIZ (and landowners of those sites) would face the opportunity costs associated with potential future expansions or other changes to those activities not covered by existing consents or use rights.

(g) Landowners in the GIZ would have a wider market of potential tenants. This could have a flow-on effect in terms of slightly higher land values than would be the case under the notified provisions.

10.29 On the other hand, the anticipated economic <u>costs</u> of enabling trade suppliers in the GIZ (as sought in submissions) would be:

(a) Trade suppliers would occupy capacity that would otherwise be available for industrial and service activities. Not all trade suppliers would be attracted to the GIZ as it would be one of a range of zone options, but a portion of future activity growth

could be expected to occupy a share of GIZ capacity. I am not able to reliably quantify that effect.

(b) Enabling trade suppliers could slightly increase land values in the GIZ, although this would be minor compared to enabling any other higher value land use currently prohibited by the notified GIZ provisions. This could be expected to have a no more than minor effect on the long term sustainability of industrial and service activities.

(c) Trade suppliers could result in net additional traffic generation within the GIZ *if* the trip generation is shown to be higher than for either industrial or service activities. I do not have sufficient information to provide any certainty of this effect.

(d) Allowing the establishment of trade suppliers in the GIZ that have a high share of total sales generated through retail sales to the general public could result in reduced opportunities for efficient trip making (i.e. reduced potential for cross shopping between retail and other household related activities[37]) and potentially related traffic effects as raised above[38]. This could be only a minor cost to travel time and distance for any one trade supply activity, but the cumulative effect of multiple trade suppliers with a high share of sales to the general public in an area of GIZ could give rise to more moderate adverse effects. Encouraging such trade suppliers to locate in other business and commercial zones (where there is a broader mix of activities and cross shopping opportunities are higher) would help mitigate this cost and would help support the vibrancy of those business and commercial areas.

Recommendations

10.30 Trade suppliers are a key (and growing) component of the industrial and wider economy. They help to support a wide range of economic activity including, but not limited to the construction sector.

10.31 Based on my high-level evaluation of the nature of trade supply activity in the QLD, I support some form of provision for trade suppliers in the

37 Includes multi-purpose shopping trips on a single stop.
38 The retail share of sales alone does not necessarily mean that the activity is a high trip generator. This depends on the nature of the goods sold and how frequently households' shop for such goods.

GIZ. I consider that this would be unlikely to undermine the intent of the zone to provide for the establishment, operation and long term viability of industrial and service activities.

10.32 The net economic benefits expected to arise from the notified GIZ provisions (paragraph 9.8 above) arise most strongly from the avoidance of further non-ancillary office, commercial and retail activities, as well as residential, visitor accommodation and LFR activities in the GIZ. The cumulative effect of prohibiting trade suppliers is expected to have only a marginal effect on the overall effectiveness of the provisions to achieve the GIZ's objectives. This is because a portion (although not all) of trade suppliers have a similar scale and intensity of development to many industrial and service activities. As such, they are less likely to be considered a higher value land use in a land valuation context and may generate a similar return on investment for landowners as industrial or service activities. Unlike other activities prohibited in the notified GIZ provisions, trade suppliers would be less likely to have an adverse impact on the financial viability and sustainability of industrial and service activities over the medium to long term.

10.33 I consider that providing for some form of trade suppliers in the GIZ will result in greater economic benefits than costs. Providing for some form of trade suppliers would therefore be an efficient use of the GIZ land resource.

Potential approaches to identify appropriate trade suppliers in the GIZ

10.34 There may be wider economic benefits from discouraging trade suppliers in the GIZ that generate a high number of general public (retail) trips. I have considered the practicality of defining some form of metric to identify those potential trade suppliers. My conclusions are that the use of a metric is likely to be ineffective and difficult to monitor or enforce. I have considered and discounted the following potential approaches:

(a) A metric based on the nature of goods sold. There are a broad range of trade suppliers included in the PDP definition.

Within any one type, there are expected to be business that have a total wholesale business model and those that have a mixed retail and wholesale business model.

(b) A metric based on the physical attributes of a proposed activity. For example, total building GFA, total GFA associated with retail activity or a showroom, or some ratio between yard and inside GFA. There is spectrum of premises in which trade suppliers operate (including yards, warehouses, showrooms and combinations of these). A show room might be for the benefit of trade or retail customers, or both. A large GFA might be driven by the bulky nature of the goods (i.e. office furniture) or a large range of small goods. Neither provide any certainty that the trade supplier sells to the general public or if they do, that this generates large numbers of public trips. In my view, there is unlikely to be a clear enough relationship – that applies across all types of trade suppliers - between GFA and other physical features of a premises and the quantum of trips that may be expected to be made by the general public. Every trade supplier is likely to accommodate/manage retail activity (if applicable) in a different way.

(c) A metric based on the share of total annual sales associated with retail activity. A threshold of 40% retail sales (for example) may be appropriate to distinguish those businesses that are more reliant on attracting the general public. This threshold assumes that (anecdotally) 70% might be an upper limit of the retail share of total annual sales for trade suppliers defined in the PDP (i.e. 40% is relative to a 70% maximum)[39]. There are several potential limitations to this approach. A 40% (say) or greater share of sales to the general public (on average across the year) is not sufficient on its own to determine that that retail activity translates into a high number of trips by the general public. Conceivably there may be a trade supplier than has 70% of sales to retail customers but their overall trip generation is low because they sell a specialist good for which there is not widespread demand and

39 I would advise further assessment to validate the 70% assumption in the first instance and then a 40% (or other threshold) to test the potential impact of such a threshold (i.e. the number of trade suppliers that fall into this category as a share of the total).

that is only purchased infrequently. Conversely, trade suppliers that have 60% or more of total sales to trade customers (i.e. are more focussed on wholesale activity) may have a very high trip generation rate overall, and even a low share of general public sales may still be significant in trip generation terms. The average value of transactions is also a factor that can influence the relationship between sales and customer counts and will differ between trade supplier types and between trade and retail purchases. Trade suppliers may also be unwilling to disclose expected shares of sales, or projecting future shares of sales between wholesale and retail may have a high degree of uncertainty/reliability.

(d) A metric based on carparking proposed. While there is a more direct relationship between parking provision and expected customer counts, the provision of parking is likely to be influenced by the standards for the zone as a minimum (which are themselves linked to GFA ratios). Even if the proposed activity seeks a higher number of carparks (than the minimum) based on some assumption of expected trip generation, the presence of carparks does not determine whether they are used by trade or retail customers.

10.35 Overall, the application of a qualifying metric to distinguish desirable trade suppliers in the GIZ from those that may be more appropriate in other locations is in my view unlikely to be effective.

11. ANCILLARY RETAIL, OFFICE AND COMMERCIAL SPACE IN THE GIZ

11.1 I have been asked to consider ancillary retail, office and commercial activity in the context of industrial and service activities. I have considered the effect and appropriateness of the notified GIZ standards to provide for these activities.

11.2 The Industrial Report touched briefly on the importance of ancillary office and retail activity (section 7.3). In particular, most businesses, inclusive of industrial and service activities, require some office space.

It is an operational need for most businesses and needs to be provided for.

11.3 In addition to ancillary office space, some industrial activities may manufacture, fabricate, process, or pack goods for the wholesale or retail market. Ancillary retail space may allow them to:

(a) display their goods to prospective customers (i.e. a showroom that may facilitate new orders), and/or
(b) direct sell some or all of their goods produced on site.

11.4 These two drivers for ancillary retail space may facilitate a portion of revenue for industrial businesses or may be the sole source of revenue (i.e. the only way that a business derives income). Examples of manufacturing businesses that may require ancillary retail space include (but are not limited to) kitchen and cabinet makers, joiners, furniture makers, boat builders, metal workers, apparel manufacturers (including embroidery and screen printing), food and beverage manufactures and picture framing.

11.5 Based on the Council's ground truthing survey data for the operative industrial and business zones, it is more likely that a predominant commercial or retail activity will have ancillary service activity than a predominant service activity will have ancillary commercial or retail activity.

11.6 With this in mind, and on the basis that the notified GIZ provides for ancillary retail/commercial activity in service activities and not the converse relationship, it seems most likely that predominant service activities might, in limited cases, seek to sell goods related to the products they service or the services they provide (whichever is relevant). Examples might be a business that services vacuum cleaners selling vacuum bags (or new or second-hand vacuums), someone that provides storage or house removal services selling packing cartons and tape or someone that offers catering services selling a range of ready-to-eat products. As with industrial activities, this ancillary retail space is in addition to any ancillary office space required.

11.7 The amount of ancillary office space required will depend on the number of staff that perform office based roles in the business. This will vary depending on the nature and scale of the business – there is unlikely to be a number or ratio that could be consistently applied. The amount of ancillary retail or commercial space required (if applicable) may depend on the nature and range of goods produced or sold (with bulky goods logically requiring more space).

11.8 I am not aware of any available data source that would allow me to easily analyse the scale and nature of ancillary activities in industrial and service activities. It was also not considered practical in the time available to examine consented floor plans or to survey individual businesses in the district that have ancillary office, retail or commercial space. As such, it is difficult to comment, with a high degree of certainty, on the appropriateness of the notified GIZ provisions (zone standards) for ancillary retail, office and commercial activity in industrial and service activities.

11.9 In saying that, the notified provisions provide a consenting pathway based on GFA thresholds (including adjoining outside space). This provides some certainty on potential outcomes as well as flexibility to help manage potential adverse effects. Flexibility is considered important given the range of potential ancillary requirements across industrial and service activities, as discussed above. I *am* able to test the implication of the proposed ancillary GFA thresholds (indoor space) in combination with the building coverage and minimum lot size thresholds proposed for the GIZ. The results are as follows (**Table 6**):

Table 6 – Indicative Implications of Notified Ancillary Retail, Office and Commercial Activity GFA Thresholds for Industrial and Service Activities

GFA Threshold Approach		NC	D	P	P
Min Lot Size Examples		200	500	1,000	2,000
Building Coverage (max 75%)	75%	150	375	750	1,500
Single Storey Activity (max GFA)		150	375	750	1,500
Permitted Maximum Ancillary GFA as a Share of Total Floorspace	50	33%	13%	7%	3%
Restricted Discretionary Maximum Ancillary GFA as a Share of Total Floorspace	100	67%	27%	13%	7%
Indicative Two Storey Activity (max GFA)		300	750	1500	3000
Permitted Maximum Ancillary GFA as a Share of Total Floorspace	50	17%	7%	3%	2%
Restricted Discretionary Maximum Ancillary GFA as a Share of Total Floorspace	100	33%	13%	7%	3%

11.10 **Table 6** sets out 4 indicative lot sizes for the GIZ, whereby a minimum lot size of 1,000sqm (or greater) is permitted and a lot between 500-1,000sqm is a discretionary activity and a lot less than 500sqm is non-complying – I have tested a 200sqm non-complying example.

(a) Applying a 75% building coverage gives a GFA for a single storey building of between 150sqm (for a 200sqm non-complying lot) and 1,500sqm (for a 2,000sqm permitted lot). Allowing for up to 50sqm GFA of permitted ancillary activity floor space, this would equate to between 3% and 33% of the total building floor space, although a maximum of 7% for a permitted minimum lot size (1,000sqm).

(b) Applying a 75% building coverage gives a GFA for a two storey building[40] of between 300sqm (for a 200sqm non-complying lot) and 3,000sqm (for a 2,000sqm permitted lot). Allowing for up to 50sqm GFA of permitted ancillary activity floor space, this would equate to between 2% and 17% of the total building floor space, although a maximum of 3% for a permitted minimum lot size (1,000sqm).

(c) Allowing for up to 100sqm GFA of restricted discretionary ancillary activity floor space, this would equate to between 7% and 67% of the total building floor space in a single storey building, although a maximum of 13% for a permitted minimum lot size (1,000sqm).

(d) Allowing for up to 100sqm GFA of restricted discretionary ancillary activity floor space, this would equate to between 3% and 33% of the total building floor space in a two storey building, although a maximum of 7% for a permitted minimum lot size (1,000sqm).

11.11 Based on the permitted minimum lot size (i.e. 1,000sqm) these percentages of total potential building envelope attributable to ancillary activities appear modest. Whether they are too modest to accommodate ancillary office and any required retail/commercial space (if applicable), I cannot say. **Table 6** does however show that for discretionary and non-complying lot sizes, care will be needed to

40 The proposed provisions indicate a building height of between 7 and 10m.

consider the potential implications of the ancillary space thresholds as these could quickly become more significant shares of total floor space (especially for single storey buildings and non-complying lot sizes).

11.12 An alternative approach to managing ancillary retail, office and commercial space could be to set a percentage of total GFA. This was raised in a number of submissions. I have tested an indicative 20% threshold and a higher 30% threshold using a similar approach as above to examine the potential outcomes (**Table 7**).

Table 7 – Indicative Implications of Adopting a Percentage of Total GFA Approach for Ancillary Retail, Office and Commercial Activity for Industrial and Service Activities

% of GFA Approach		NC	D	P	P
Min Lot Size Examples		200	500	1,000	2,000
Building Coverage (max 75%)	75%	150	375	750	1,500
Single Storey Activity (max GFA)		150	375	750	1,500
Indicative Ancillary GFA (assuming 20% of total GFA)	20%	30	75	150	300
Indicative Ancillary GFA (assuming 30% of total GFA)	30%	45	113	225	450
Indicative Two Storey Activity (max GFA)		300	750	1,500	3,000
Indicative Ancillary GFA (assuming 20% of total GFA)	20%	60	150	300	600
Indicative Ancillary GFA (assuming 40% of total GFA)	30%	90	225	450	900

11.13 **Table 7** again sets out 4 indicative lot sizes for the GIZ ranging from a large permitted lot to a small non-complying lot.

(a) Applying a 75% building coverage gives a GFA for a single storey building of between 150sqm (for a 200sqm non-complying lot) and 1,500sqm (for a 2,000sqm permitted lot). Allowing for up to 20% of total GFA for ancillary activity floor space, this would yield between 30sqm and 300sqm GFA of ancillary floor space, although a minimum of 150sqm GFA for a permitted minimum lot size (1,000sqm).

(b) Applying a 75% building coverage gives a GFA for a two storey building of between 300sqm (for a 200sqm non-complying lot) and 3,000sqm (for a 2,000sqm permitted lot). Allowing for up to 20% of total GFA for ancillary activity floor space, this would yield between 60sqm and 600sqm GFA of ancillary floor space, although a minimum of 300sqm GFA for a permitted minimum lot size (1,000sqm).

(c) Allowing for up to 30% of total GFA for ancillary activity floor space, this would yield between 45sqm and 450sqm GFA of

ancillary floor space in a single storey building, although a minimum of 225sqm GFA for a permitted minimum lot size (1,000sqm).

(d) Allowing for up to 30% of total GFA for ancillary activity floor space, this would yield between 90sqm and 900sqm GFA of ancillary floor space in a two storey building, although a minimum of 450sqm GFA for a permitted minimum lot size (1,000sqm).

11.14 While the percentage approach ensures that the ancillary floor space remains a moderate share of total building GFA irrespective of the scale or the lot or the number of floors in the building, the outcome in terms of the scale of ancillary activity is potentially significant as lot sizes get larger and second storeys are included[41]. Because lot sizes above 1,000sqm are permitted, Council would have no direct control on the maximum size of ancillary space under a percentage approach[42].

11.15 In terms of managing potential effects of ancillary activities within the GIZ and on other zones, I consider that a GFA threshold approach offers more certainty and less risk, so long as the thresholds are practical for the majority of industrial and service activities. Under a percentage approach, at 20% the enabled ancillary space would be much more generous than the 50sqm of permitted ancillary floor space in the notified approach – potentially three times larger for a single storey building on a 1,000 lot and six times larger for a two storey building[43]. This highlights that the notified approach and a 20% of total GFA alternative approach (say) are quite far apart.

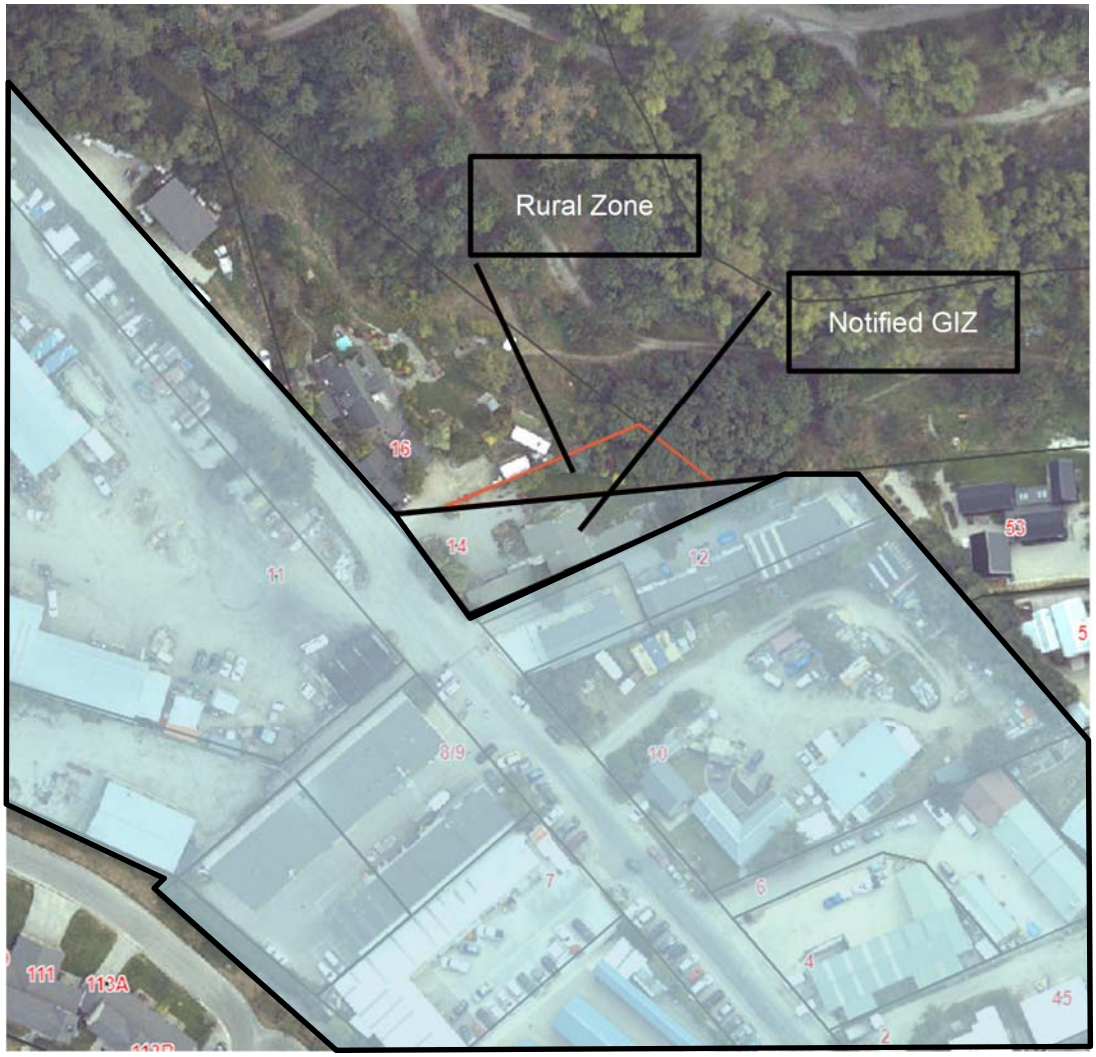
11.16 Submitters may be able to provide evidence (including real examples) on what an appropriate scale of ancillary office, retail and commercial activities is in industrial and service activities (and why), given the lack of tangible data to better inform this issue.

41 Particularly in the context of other thresholds commonly used in the PDP such as 400sqm to define LFR or 200sqm being the cap of a single office activity in the Local Shopping Centre Zone.
42 Although may be able to assert control indirectly through any exceedances of other rules.
43 Only at a 350sqm lot would a 20% site coverage match a 50sqm GFA permitted ancillary area for a single storey building (and at a 180sqm lot for two storey building).

12. SUBMISSION 3003 – MICHAEL THOMAS

12.1 Michael Thomas is the owner of a residential property at 14 Bush Creek Road, Arrowtown (**Figure 5**). As a result of a past boundary adjustment, the property comprises two lots, one of which is currently zoned ODP Industrial A zone and notified as GIZ in Stage 3. The other lot is zoned Rural Zone and is within an ONL (Stage 1). Mr Thomas seeks that the entire Bush Creek Road GIZ area (inclusive of the GIZ portion of his property) be zoned a more "*mixed use zone*" that reflects the current mix of activity in the area. He considers that this will avoid any loss of value of his property should he wish to redevelop the residential dwelling on the basis that residential dwellings are prohibited in the notified GIZ. Mr Thomas also seeks the entirety of his property be given one zone (to remove the split zoning).

Figure 5 – Aerial Photograph showing 14 Bush Creek Road



12.2 Bush Creek Road has, in my view, an industrial character and comprises a number of industrial and service activities. These activities dominate the land use.

12.3 The value of any residential properties located down Bush Creek Road will reflect the low level of amenity associated with the industrial character in the street relative to other streets in the Arrowtown urban area (acknowledging that residential property values in Arrowtown are relatively high compared to the QLD average). The expectation is that anybody purchasing a residential dwelling or unit in this street will have taken into account the current zoning of surrounding land.

12.4 The subject site is an established residential property that currently offers no capacity for industrial or service activities and this outcome will prevail as long as the dwelling remains. If, hypothetically the dwelling was removed, the area of this site zoned GIZ (797sqm surveyed area) *may* provide capacity for an industrial or service business but the unusual triangular shape of the zoned area combined with its relatively small size mean that it may be a less attractive site for many businesses looking to establish in the Wakatipu Ward compared to other zoned opportunities (unless there was a functional or operational need to locate in Arrowtown – in which case, opportunities are limited/rare and the limitations of the site may be outweighed by other benefits).

12.5 It is also possible that an industrial or service business establishing on this hypothetically vacant GIZ property could make use of the estimated 309sqm of Rural zoned land at the rear if land use activities were compatible with that zone. However, it is also possible that the 309sqm of Rural zoned land could not be effectively utilised. Overall, I think the split zoning of this property is not an efficient outcome. It constrains the development potential of the site and potentially creates additional transaction (consenting) costs and an opportunity cost for this landowner, further exacerbated by the GIZ provisions. I support the submitters request that the property (comprising both lots) be given a single zone.

12.6 I oppose the relief for 14 Bush Creek Road or the total Bush Creek GIZ area to be zoned to a more "*mixed use zone*". For the purpose of my evidence, I treat this relief as a request for PDP BMUZ. The rationale provided in the relief seems weighted towards the presence of residential dwellings/units in the zone. Council's ground truthing indicates 8 residential dwellings/units (inclusive of 14 Bush Creek Road). Several of these, like 14 Bush Creek Road, are standalone dwellings on sites within the GIZ. The rest are part of a consented mixed use development (a small number of upstairs dwelling units). In my view, the presence of these residential dwellings does not sufficiently align the Bush Creek Area with the intent of the BMUZ. Nor does the area contain a material number of commercial businesses.

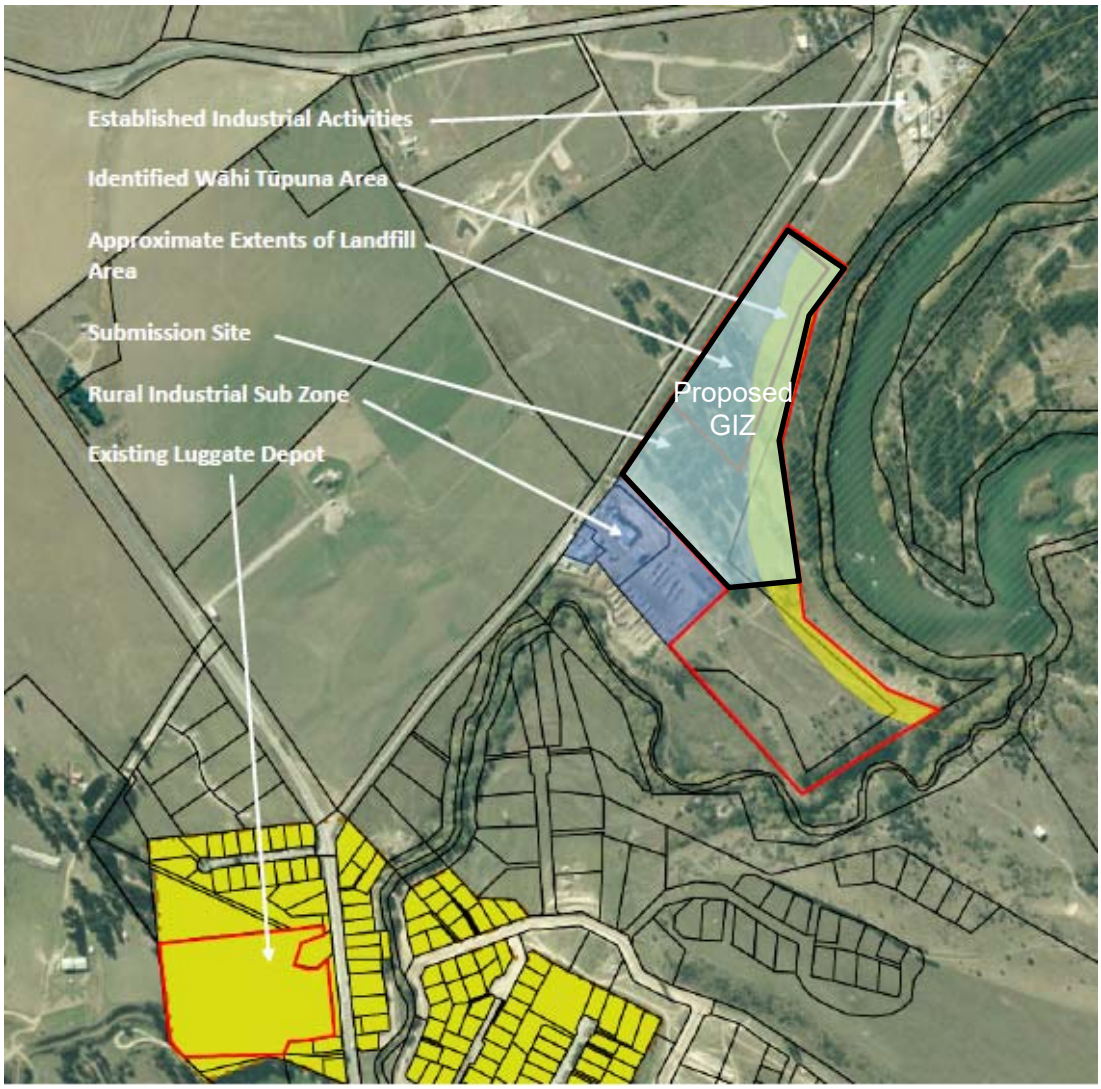
12.7 The GIZ is the most appropriate zone to maintain and protect the existing industrial and service activities which dominate the land-use in Bush Creek Road (17 of the 24 predominant business activities surveyed in the zone by Council are either Service, Yard Service or Light Industrial). Such activities play a key role in the QLD's industrial economy. I consider that the BMUZ would adversely affect the ongoing commercial viability of the existing low-intensity and yard based activities along Bush Creek Road, increasing the value of the land and encouraging redevelopment to higher value land uses. A BMUZ would also potentially increase the number of incompatible activities which could give rise to greater reverse sensitivity effects on these existing businesses.

13. SUBMISSION 3256 – UPPER CLUTHA TRANSPORT LTD

13.1 Upper Clutha Transport Ltd seek relief to zone a site on Church Road in Luggate to GIZ (**Figure 7**). The site is currently zoned PDP Rural Zone and forms part of a Rural Character Landscape. The site also includes two overlapping Wāhi Tūpuna areas. If granted, a GIZ on this site would allow Upper Clutha Transport to relocate their yard based industrial operations that currently exist in the PDP Settlement Zone within Luggate. They state that the current site limits their ability to expand and faces increasing pressure from reverse sensitivity effects. Upper Clutha Transport provide employment opportunities in the

Luggate locality and support the "*farming and building industries and the local economy generally*" and have done so for over 100 years.

Figure 6 – Aerial Photo of the Proposed GIZ Site and existing Depot Site and Neighbouring Activities



13.2 I support the relief to rezone the proposed site GIZ on economic grounds. While the activity can continue to operate as a lawfully established business in the PDP Settlement Zone, relocation to the GIZ would provide an ability for this business to operate more sustainably over the long term (with reduced reverse sensitivity effects) and potentially expand in the future. It also maintains employment opportunities in the Luggate area and consolidates industrial activities within Luggate (i.e., industrial and service activities neighbouring the proposed GIZ site). This may increase the potential for synergies

(agglomeration benefits) between neighbouring activities[44]. I also agree that the GIZ is an efficient use of a decommissioned landfill contained within the site.

13.3 As the site is intended to cater for the relocation and potential future expansion of an existing activity, the relief for GIZ does not appear to create vacant capacity that would be available for *additional* business growth. However, if it proves that there is vacant capacity over and above the submitter's operational requirements on the site, this would provide a greater choice of GIZ locations for existing and new industrial and service businesses in the wider Wanaka area. This would be a positive outcome that would also generate further employment opportunities in Luggate.

13.4 The submission also requests that the notified GIZ provisions enable workers' accommodation ancillary to industrial or service activities. Currently the GIZ provides only for office, retail and commercial activity that is ancillary to industrial and service activities. Due to health and safety requirements that limit the hours that can be driven without a break, Upper Clutha Transport "*seeks the ability to provide accommodation and rest facilities onsite by way of apartments and/or bunk rooms*" for their truck drivers (as haulage and heavy vehicle transport is core to their business).

13.5 I support this submission point as long as there are mechanisms that prevent these buildings/areas from being sold or rented to the general property market and that an operational need can be demonstrated (such as the one provided for truck drivers needing periodic rests). The submitter provides the option of this being a site specific relief and this may be the most appropriate approach so that other industrial and service businesses do not attempt to provide tenancy options for non-operational reasons. For example, for staff who might struggle with convenient availability of housing or affordable housing. It should not be the purpose of the GIZ to help address housing supply and affordability issues.

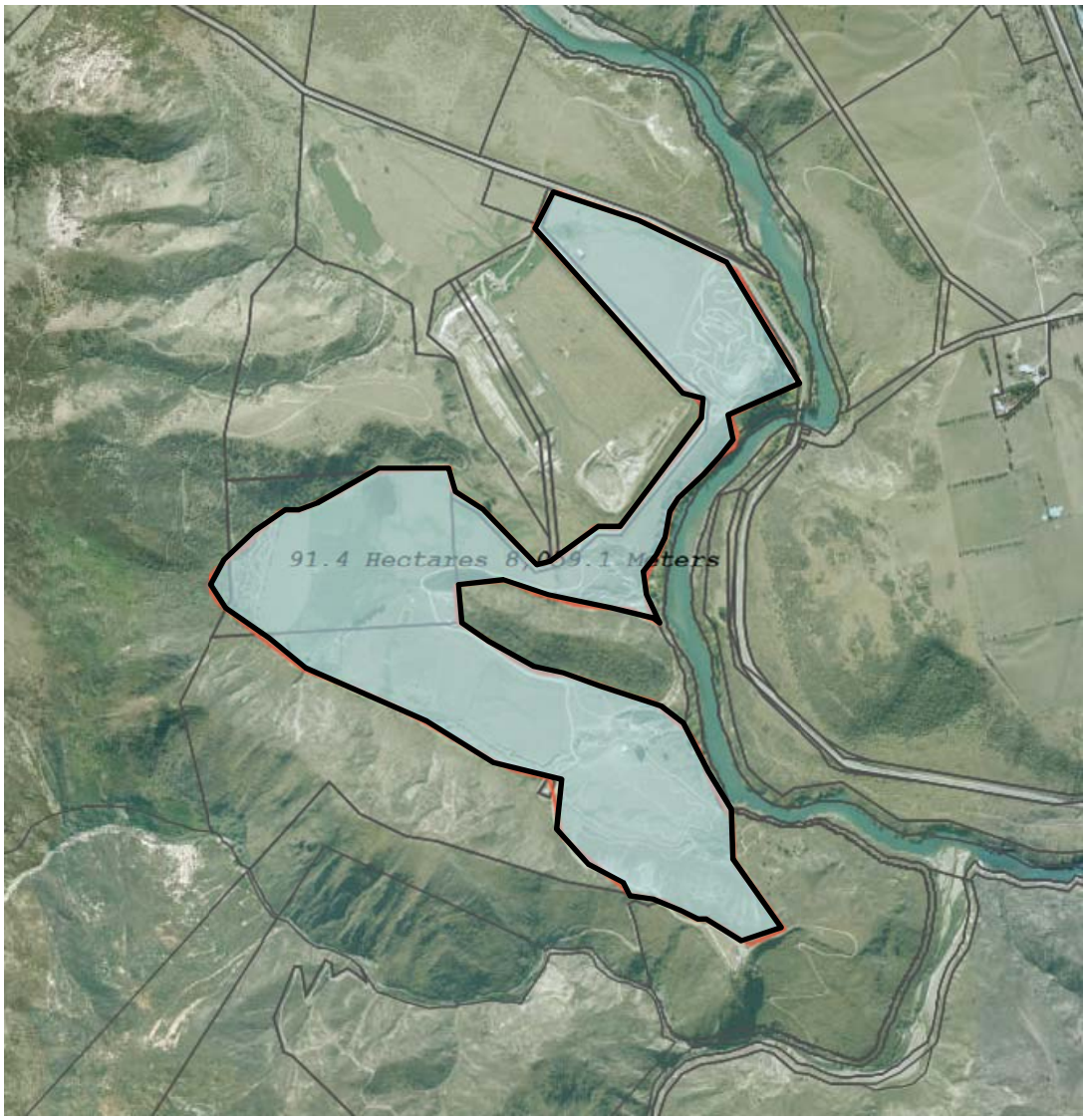
44 Neighbouring activities include the Luggate Sawmill and Alpine Group's venison and deer velvet processing factory to the south west and a number of industrial activities such as truss and framing fabricators and electrical contractors to the north east.

13.6 The submission also requests that trade suppliers be enabled in the GIZ. The submitter recognises that the BMUZ provides for trade suppliers but considers that that zone is not appropriate for those trade suppliers (such as Upper Clutha Transport Ltd) that sell bulky materials, including storing bulk materials in yard type sites. I have addressed the issue of trade suppliers in my evidence above and support some form of provision for trade suppliers in the GIZ. The need to provide for trade suppliers that sell and store bulky goods in outdoor yards is consistent with my finding that some trade suppliers will have similar site requirements and effects as some industrial and service activities.

14. SUBMISSIONS 3349 – CARDRONA CATTLE COMPANY LTD

14.1 The Cardrona Cattle Company (**CCC**) have requested that their land in Gibbston be included within the GIZ. The CCC land comprises 91.4 ha and is oddly shaped (**Figure 7**). The CCC land is currently split zoned, being partially within the Rural Zone and partially within the Gibbston Character Zone (GCZ). The land wraps around the existing Victoria Flats landfill and a large part of the land is within Designation #76, providing a 'landfill buffer' for the Victoria Flats landfill. The CCC land is largely vacant (greenfield).

Figure 7 – Aerial photograph of the Cardrona Cattle Company Proposed GIZ



14.2 There are two key aspects of this submission which I have considered. First, the need for additional GIZ land in the Wakatipu Ward and second, the appropriateness of the proposed location at Victoria Flats.

Requirement for additional GIZ land in the Wakatipu Ward

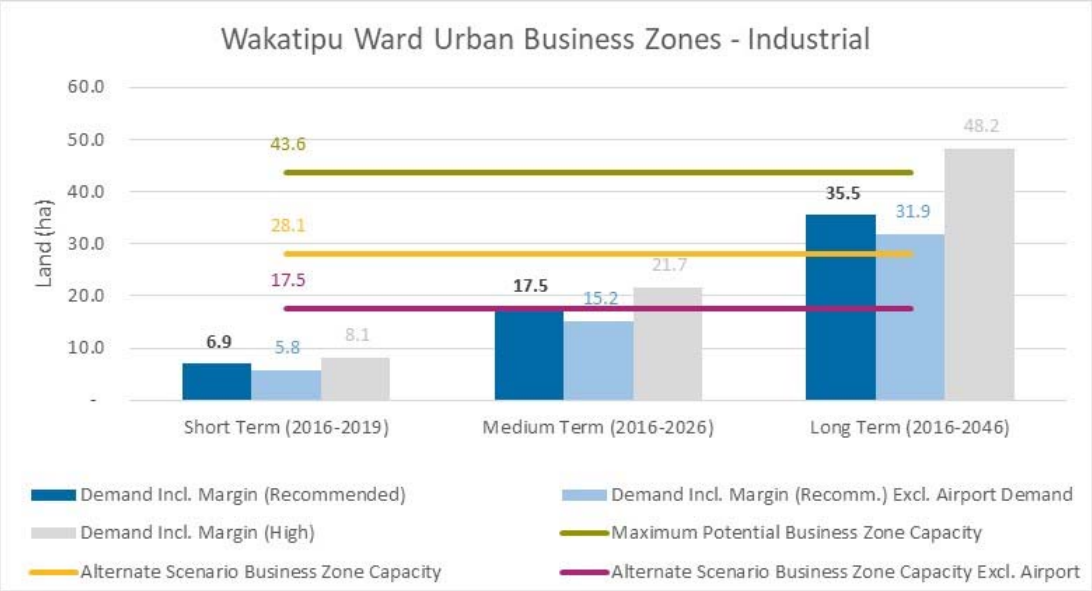
14.3 The submission states that Stage 3 of the PDP has not adequately addressed the demonstrated need for more industrial land in the Wakatipu Ward as recommended in the BDCA 2017. For clarity, the BDCA 2017 reached the following conclusions with regard to industrial capacity in the Wakatipu Ward to cater for short, medium and long term demand growth.

14.4 Under the Maximum Capacity Scenario, the Wakatipu Ward is estimated to have sufficient vacant capacity in business enabled zones to cater for long term demand (plus a margin) for industrial land uses/building typologies. This conclusion applied only for the adopted Council growth projections. When testing the higher growth projection available at that time, a long term shortfall of industrial land capacity was estimated. Caution was advised on this Maximum Capacity Scenario as not all land enabling industrial type development is likely to be developed for this purpose given the flexible nature of the respective zones and strong demand (competition) by other higher value land use activities.

14.5 Under the Alternative Capacity Scenario, which removes the double counting of vacant capacity across zones based on a range of assumptions, the Wakatipu Ward is estimated to have sufficient vacant capacity in business enabled zones to cater for medium term demand (plus a margin) for industrial land uses/building typologies, but a shortfall of capacity in the long term. This conclusion was based on the adopted Council growth projections. Under the higher demand growth projection that long term shortfall was exacerbated.

14.6 The BDCA 2017 also identified the implication of further removing the industrial capacity within the AMU Zone (and associated demand for Air Transport Services that would be directed to that land). When viewed in this way, the Alternative Capacity Scenario showed the sufficiency of industrial capacity was likely to be exhausted very soon after the medium term under the adopted growth projections. Under the higher growth projection, a shortfall would be apparent in the medium term. These results are summarised in **Figure 8**, taken from the BDCA 2017 Executive Summary.

Figure 8 – BDCA 2017 Results for Industrial Sufficiency in the Wakatipu Ward



14.7 On the basis of these findings, the BDCA 2017 made strong recommendations for additional industrial capacity to be identified in the Wakatipu Ward (with some urgency). The Submission is correct in this regard.

14.8 Since the BDCA 2017, there have been changes that have occurred in the Wakatipu Ward that influence the assessment of industrial zone sufficiency from both a demand and supply perspective. These have been explained earlier in my evidence regarding the Interim BDCA Update. A key change (among other more minor changes) is that the Coneburn Industrial Zone has been created via a submission on Stage 1 of the PDP.

14.9 The Interim BDCA Update reached the conclusion that under the Maximum Capacity Scenario and the Alternative Capacity Scenario, the Wakatipu Ward is estimated to have sufficient vacant capacity in business enabled zones to cater for long term demand (plus a margin) for industrial land uses/building typologies. The estimated surplus under the Alternative Capacity Scenario in 2048 is 13 ha.

14.10 However, once the vacant land in the operational extent of the Airport (combined PDP AMU/Rural zones and Lot 6) is removed, the Alternative Capacity Scenario shows that Wakatipu Ward is estimated to have a shortfall of capacity for industrial demand in the long term,

despite the addition of the Coneburn Industrial Zone. The shortfall in 2048 is estimated at around 6 ha. This long term shortfall may be further exacerbated if the QAC owned vacant capacity in the ODP Frankton Flats B Zone was not available for general market industrial development. Hence, the recommendation that additional industrial capacity be identified in the Wakatipu Ward (to help manage risk) still applies in the Interim BDCA Update.

14.11 The submitter is correct that the Stage 3 GIZ proposal has done little to change the growth capacity of industrial zoning in the Wakatipu Ward, over and above the ODP and PDP (Decisions Version on Stages 1 and 2). Based on my estimates, vacant industrial capacity under the Maximum Capacity Scenario increased by just 0.1 ha in the Wakatipu Ward under Stage 3. Under the Alternative Capacity Scenario, Stage 3 resulted in a net increase of 0.5 ha of vacant industrial capacity in the Wakatipu Ward. The Stage 3 notified changes have not addressed the recommendation of the Interim BDCA Update.

14.12 In my view, additional long term industrial zone capacity in the Wakatipu Ward needs to be identified, although there is not a requirement for it to be live-zoned at the current time. This is based on the requirements of the NPS-UDC (Policy PA1). Identifying additional long term industrial zone capacity may be a matter that can be addressed in the Council's Spatial Plan and FDS (currently underway).

Appropriateness of Victoria Flat in Gibbston Valley for GIZ

14.13 For the BDCA 2017, Market Economics developed a MCA framework for assessing the relative commercial feasibility of different areas of the district for industrial, retail/office, and visitor accommodation development. The MCA is based on a set of criteria relevant to each land use that each location can be evaluated against – in a relative sense. These criteria were weighted with the input of stakeholder engagement (a mix of local developers) and Council so that the criteria of key importance to the QLD market were reflected. The key limitation of the MCA framework is that the relative scores given to each location across the QLD are subjective. These were however agreed with Council at the time based on a mix of measurable data and local

knowledge. I consider that the MCA framework is an appropriate approach for assessing this submission for GIZ in the Gibbston Valley.

14.14 A copy of the BDCA 2017 MCA results for industrial development is attached in **Appendix C** of this evidence. The spatial framework of the MCA does not specifically identify the Gibbston Valley. Rather, it falls within the broad area referred to as Outer Wakatipu. Given the large geographic extent of this area, it was more challenging to evaluate Outer Wakatipu against the criteria relative to other locations which were often smaller and easily identified geographically. As a result, some broad averages were needed to help rank the Outer Wakatipu against each criterion. Overall, the BDCA 2017 ranked Outer Wakatipu as the least commercially feasible area for industrial development. However, as the Victoria Flats area is geographically defined, it warrants assessment of its own.

14.15 The three criteria given the most weight in the industrial MCA framework are as follows. I include my relative scoring of the Victoria Flats site with each one:

(a) Flat land, large land parcel, contiguous sites (max score 20). Based on the information provided, I score the site indicatively 14/20 (rank 5th). The potential zoned area is large and relatively flat. However, the potential zone area is not cohesive, rather elongated to wrap around the landfill and other natural features.

(b) Access to major Road / transport routes; good transport access, especially road/motorway. Freight/heavy vehicle focussed (max score 20). The site connects quickly to a State Highway and is therefore accessible to both Cromwell and Frankton. I score the site indicatively 12/20 (rank 5th =). I note that this criterion is high level only and relates only to proximity to a major transport route and does not consider suitability in terms of traffic movements/safety grounds. Mr Smith's evidence provides a technical assessment of these traffic effects for the CCC (and The Station at Waitiri Ltd) submission.

(c) Area has potential for co-location or clustering with associated business activities or is contiguous with existing business land zoned for industrial activities (max score 20). The site does not represent an extension of an existing business area. However, it is contiguous with the landfill which is a heavy vehicle site with similar externalities to heavy industry activities. I score the site indicatively 7/20 (rank 8th =).

14.16 The two criteria given the next highest weighting in the industrial MCA framework are as follows:

(a) Ability to buffer adverse effects from residential and sensitive activities, distance from sensitive land uses (max score 15). Based on the information provided, I score the site indicatively 12/15 (rank 2nd=). The potential zoned area does not have any sensitive urban zones adjacent to it such as residential or commercial zones. This is the key focus of this criteria. However, it is partly with the Gibbston Character Zone and the Rural Zone portion is identified as an ONL. I refer to the evidence of Mr Dicey which states that industrial land use on this site may adversely affect future commercially viable viticulture development on the opposite side of State Highway 6 in the Gibbston Character Zone[45], specifically potential for "*odour or dust generated from industrial activities transferring to vineyards and being adsorbed into the waxy cuticle on the outside of a developing grape berry*" (Section 6 of his evidence). Further, spray drift from viticulture activities on adjacent Gibbston Character Zone land may have an adverse effect on businesses located in the proposed GIZ.

(b) Services - Waters Infrastructure (max score 15). The submission states only that the site can be "*readily serviced*". I indicatively score this 7.5/15 (rank 27th =). This is the same score given to other remote rural location such as the Rest of Upper Clutha Valley and Cardrona in the MCA. While I have

45 It is my understanding that the proposed GIZ would not cover all Gibbston Character Zone land in this location and may leave small pockets on the fringes. Mr Dicey does not specifically identify if these pockets would be commercially viable for viticulture but does state that economic viability is dependent on minimum productive areas for certain business models. Mr Dicey concludes the following: "The 3349 application is for the whole land use change and may only affect the land on the other side of the road which will remain as part of the GCZ".

assumed that services can be developed and managed on site (and I acknowledge Mr Powell's evidence that the submitter has provided "*insufficient evidence of onsite infrastructure feasibility*" (paragraph 4.2), the dimensions of the zone area may make the networking of the zone relatively costlier than if the area was more concentrated. Areas which can connect directly to urban infrastructure where there are no known capacity issues are ranked higher.

14.17 The three criteria given the next highest weighting in the industrial MCA framework are as follows:

(a) Proximity to Labour (max score 10). I indicatively score the site 1/10 (rank 25th =). The site is isolated and between 20 and 26km from the nearest urban areas (i.e. Cromwell and Arrowtown or Lake Hayes Estate).

(b) Existing or Proposed Public Transport (max score 10). As far as I am aware there is no public transport through the Gibbston Valley. The site gets the same score as other remote areas outside the public transport network (2/10 or 18th =).

(c) Proximity to Queenstown Airport (max score 10). Based on the distance to the Airport relative to other locations, I indicatively score the site 4/10 (rank 20th).

14.18 The four criteria given the lowest weighting in the industrial MCA framework are as follows:

(a) Single Ownership and Potential for large sites (max score 5). I indicatively score the site 5/5 (rank 1st =). This score is based on the assumption that the land could be structure planned and developed in a comprehensive way.

(b) Low Level of Traffic Congestion in Vicinity (max score 5). I indicatively score the site 5/5 (rank 1st =).

(c) Exposure / Profile / Visibility (max score 5). I indicatively score the site a 1/5 (rank 24th =). I refer to Mr Jones' evidence on this submission which states that "Although contained by localised topography, the site is visible for long stretches

along State Highway" (paragraph 7.11b). Due of the shape of the site, I consider that there are likely to be areas in the southern part of the site in particular where businesses would have limited visibility to passing traffic. Ultimately however, the site is considered remote and this a key determinant of the low score. I note that this criterion in the MCA considers visibility to be a positive for commercial viability of industrial and service businesses. It is important to acknowledge that the converse applies for managing landscape effects. In this regard, I acknowledge that Mr Jones concludes that "*Development as anticipated by the GIZ will be incongruous with the surrounding landscape character*" (paragraph 7.11b) and he does not support the submission on landscape grounds.

(d) Access to complementary / supporting business services (Industrial sector suppliers) (max score 5). I indicatively score the site 1/5 (rank 23rd =). Apart from some nearby recreational facilities, the site would be an isolated employment zone. Any goods and services, including commercial services required by businesses located in the site will need to be brought in from other (predominantly) urban areas, or accessed within urban areas. The businesses within the zone may however benefit from proximity to each other depending on the mix or activities developed.

14.19 The combined score for Victoria Flats in the industrial MCA framework based on these indicative relative scores is 71.5 or 8th overall. I note the top 7 locations are (in descending order) Frankton Flats (115.5), Remarkables Park (113.5), Frankton (94.5), Wanaka Central (which includes the Ballantyne Road area and Three Parks), 91.5), Wanaka North (87), Warren Park (i.e. Gorge Road, 77.5) and Jack's Point/Coneburn (73.0).

14.20 Obviously not all of these theoretically more optimal locations have capacity for new industrial areas. Most are zoned and developed for other land uses. This makes the Victoria Flats site potentially the second most feasible location for industrial development in the

Wakatipu Ward, after further potential expansion in the Jack's Point/Coneburn vicinity. The above results are included in **Appendix C**.

14.21 The MCA framework is only one way in which the suitability of sites for industrial land use can be evaluated. It helps address the requirements in the NPS-UDC for new zoning to be commercially feasible. It does not cover all constraints or effects and these need to be weighed up (such as traffic or landscape effects addressed by Mr Smith and Mr Jones). Nor does it weigh up the commercial feasibility of the site to develop according to the intent of the operative zoning (i.e. parts in the Gibbston Character Zone or Rural Zone), as addressed by Mr Dicey. While there may be options for new industrial zoning in the Wakatipu Basin (albeit limited), the economic role of the Gibbston Character Zone is not easily replicated or transferred. The loss of productive soils cannot be compensated. This is a relevant consideration when considering any rezoning of the Gibbston Character Zone.

14.22 From an economic perspective, I consider that expanding an existing industrial or business area is preferable to creating a new area of GIZ as it enhances agglomeration benefits, increases the functional amenity of an area (greater choice in a single location), results in greater transport efficiencies and helps reduce potential for externality effects (by containing effects to a single location rather than dispersing them across multiple locations). Only if a new/discrete GIZ location is required to provide long term growth capacity in the Wakatipu Ward, then the proposed site would appear a commercially feasible option <u>in an MCA context</u>. I have not evaluated other specific locations in more detail – this may affect the relative rank of Victoria Flats and this conclusion.

14.23 The site *would* generate relatively long travel distances for the workers in future businesses compared to other locations closer to the urban environment. As a place of employment, it may attract workers from either the Queenstown urban area or Cromwell (and beyond). I consider that the site would be more likely to attract businesses that do business (purchase inputs and sell outputs) with other businesses as any activities that rely strongly on selling to the public will prove less

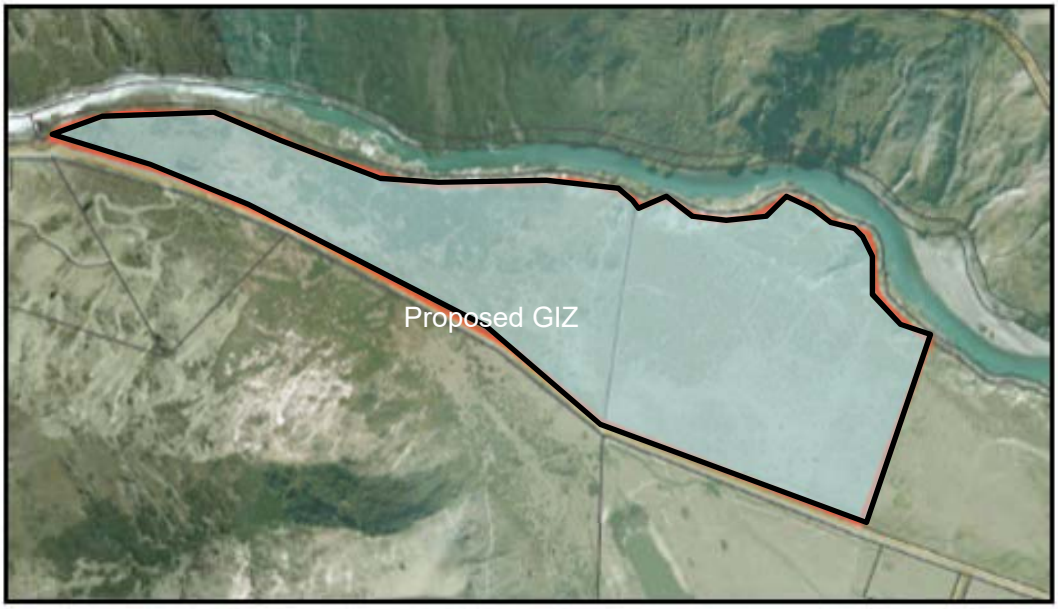
convenient compared to the location of other urban business enabled zones or GIZ areas.

14.24 I have not quantified the net economic effects of a loss of productive capacity in the Gibbston Character Zone relative to a gain of industrial and service capacity but this trade-off is relevant to the wider economy. If granted, the GIZ could have adverse economic effects on future viticulture activity on the other side of State Highway 6 associated with odour and/or dust (relevant to policy 18A.2.4.1 of the notified GIZ). It is not possible to quantify that effect as it would depend on the nature of industrial and service activities that developed closest to the zone interface.

15. SUBMISSION 3357 – THE STATION AT WAITIRI LTD

15.1 This submission also requests rezoning to GIZ in the Gibbston Valley. In this case the total site is currently zoned Gibbston Character Zone. The location of this land is broadly opposite the CCC site discussed above on the Victoria Flats and surrounding the existing landfill. The location of the proposed GIZ is shown in **Figure 9**.

Figure 9 – Aerial Photograph of the Proposed GIZ – The Station at Waitiri Ltd Submission



15.2 When considering the appropriateness of the site for GIZ, the conclusions are very similar when the MCA framework is applied (as discussed above).

15.3 I note that I have evaluated this proposed GIZ site in the MCA discretely and not in conjunction with the proposed GIZ site in the CCC Submission (3349). That is, I have not considered the potential synergies or agglomeration benefits of zoning both locations at the same time to create a larger GIZ destination in the Gibbston Valley. Under the MCA approach, the score of the combined areas would effectively be the average of the two site scores and my conclusions would be the same.

15.4 The site in The Station at Waitiri Ltd's submission scores the same as the CCC submission site on many criteria. There are however two criteria which score relatively higher. I have indicatively scored this site 15/20 for 'Flat land, large land parcel, contiguous sites' compared to 14/20 for the CCC submission over the road. This is because the site is a contiguous area (rather than a winding and elongated proposed zone). This is likely to mean that the site can be developed more efficiency and will potentially yield a greater amount of developable capacity.

15.5 I have also indicatively scored this site 2/5 for 'Exposure / profile / visibility' compared to 1/5 for the CCC submission over the road. While still remote, this development area would be more visible to the State Highway (and has a longer road frontage). This is consistent with the evidence of Mr Jones "Although contained by localised topography, the site is visible for long stretches along State Highway 6" (paragraph 8.11b). As discussed for the CCC submission, it is important to keep in mind that a higher score in the MCA framework means a better outcome for the commercial feasibility of development and so exposure/profile is a benefit to future businesses (in terms of way-finding and brand awareness for pass-by traffic).

15.6 From a landscape of visual effects perspective this higher exposure may mean this site is not appropriate for urban development. Mr Jones considers that development of the site "will be incongruous with the surrounding landscape character" and would result in "adverse effects on the amenity of the other, adjacent zones. Namely, the Rural and Gibbston Character zones proximate to the site within the basin"

(paragraph 8.11 b and e). The MCA is not designed to capture such externalities as it is a business-centric framework.

15.7 The total indicative score of this site in the MCA is 73.5 (compared to 71.5 in the CCC submission), marginally above Jack's Point/Coneburn. The above results are included in **Appendix C**. As discussed above, the MCA informs only part of the information needed to evaluate the appropriateness of potential future development areas and is not an effects-based tool.

15.8 My overall conclusions on this submission are the same as submission 3349 by CCC.

16. SUBMISSION 3128 – TUSSOCK RISE LIMITED

16.1 This submitter seeks that the areas in the ODP Industrial A and Industrial B Zones on both sides of Frederick Street (Wanaka) and to the north of Frederick Street, including the submitter's land at Lot 2 DP 477622, be rezoned from GIZ to BMUZ. Alternative relief is also requested but in regard to the submitter's land only, being that the primary relief be accepted, however Lot 2 DP 477622 be split zoned Lower Density Suburban Residential Zone (**LDSRZ**) and BMUZ. Tussock Rise Limited (**TRL**) request a number of other specific points of rezoning relief relating to the wider GIZ in Wanaka, including the ODP Three Parks Business precinct and the notified Active Sport and Recreation Zone.

16.2 **Figure 10** shows the notified zoning (with ODP zoning identified) and **Figure 11** shows the submitters primary relief zoning.

Figure 10 – Notified GIZ in Stage 3 of the PDP (with ODP Zones Shown).

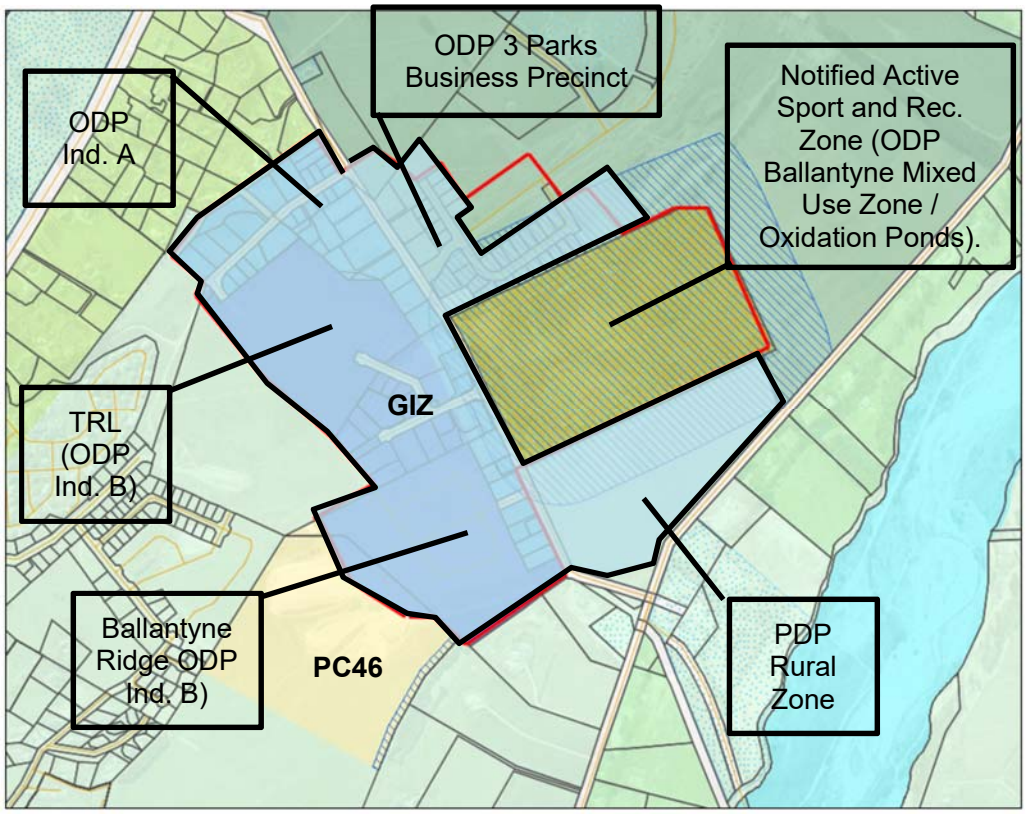
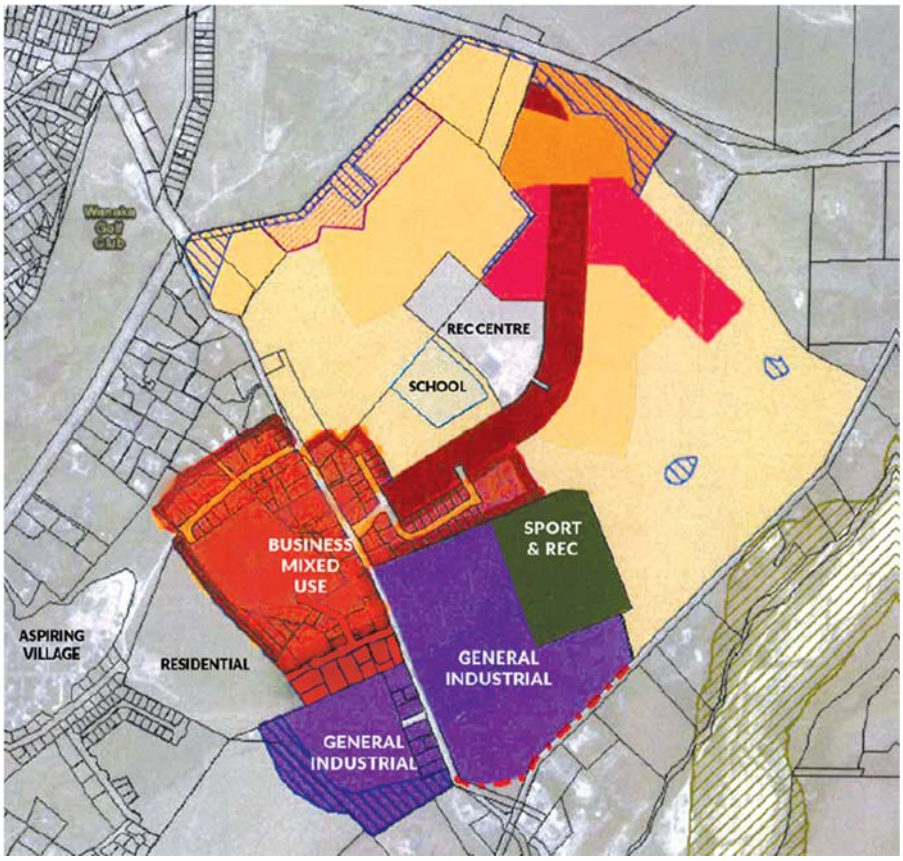


Figure 11 – TRL Relief Zoning (Primary)



16.3 This submission begins with a reference to the results of the BDCA 2017. As this work has now been updated (**Appendix B**), I comment on the implications of the latest data below:

(a) The submission draws on the total urban business land demand in the Wanaka Ward over the long term (2046) of 19.1 ha. That was based on the recommended growth projection at the time. Recent growth has already outstripped that growth projection and a high projection developed at that time. Based on the Council's latest October 2018 growth projection, total urban business land demand in the long-term for the Wanaka Ward has now risen to 24.9 ha (this is for the period 2018-2048).

(b) The BDCA 2017 reported vacant capacity in total urban business enabled zones in the Wanaka Ward of 72.0 ha. That figure is largely unchanged in total under the updated modelling based on the ODP and PDP (Decisions Version on Stages 1 and 2). The update of the BDCA has more accurately quantified vacant capacity in some locations, excludes capacity that has been developed and occupied since the original snap-shot was taken, and has re-approximated land areas in Three Parks to take account of the latest parcel boundaries. The updated figure is now 72.9 ha of total vacant capacity across all business enabled zones in the Ward.

(c) Under the notified stage 3 zoning, that total business land capacity reduces to 59.3 ha (due largely to the removal of some business enabled land in Three Parks).

(d) It is accurate however that the latest BDCA modelling still shows sufficient long term industrial, commercial and retail capacity in the Wanaka Ward, including under the Alternative Capacity Scenario.

(e) TRL submit that "Queenstown and Cromwell also provide capacity for the Wanaka Ward". I have not assessed the long term sufficiency of industrial zoned land in Cromwell and cannot comment on that. I would however refer to my research in the Industrial Report (**Appendix A**) which specifically examined the role of Cromwell in meeting the

industrial demands of Wanaka and Wakatipu Wards. My findings are that Cromwell relies more on the industrial activity in the Wakatipu Ward that the other way around. There is only minor trade of industrial goods and services from Cromwell to Wanaka Ward. This is discussed in Section 3 of my Industrial Report. This analysis demonstrates to me that Cromwell is not a solution for a shortfall of industrial land supply in QLD and cannot be relied upon to meet the needs of Wanaka or Wakatipu Ward. Central Otago District is also experiencing strong growth and any capacity in Cromwell will be important for meeting their district demand. Further, Wakatipu Ward cannot be relied upon to address a shortfall in the Wanaka Ward and vice versa. Each market is primarily focussed on supplying local business and household demand – hence the high level of similarity in the mix of activities supplied in each catchment. Any capacity that Queenstown and Cromwell provide for Wanaka is only minor.

16.4 The submission raises the issue of the GIZ rezoning areas that are already developed and mixed use in nature. I have discussed this more broadly in section 9 above. In rezoning already developed areas to GIZ, it is not intended to "*turn back the clock*" (page 3 of the TRL submission) and create a more 'pure' industrial zone. The likelihood of that occurring is almost nil, particularly as existing activities are protected with existing use rights / resource consents and the economics of development mean that most landowners would not voluntarily redevelop office and commercial sites to cater for less intensive industrial activity if given the choice and while there is still market demand for their buildings.

16.5 However, the benefit of rezoning areas already developed to GIZ is to better protect those existing industrial and service activities – providing a location where they can be sustained – and to ensure that any remaining vacant capacity (not already consented) is available for industrial and service growth. If capacity for industrial activities is not provided in an industrial zone, then where can they go and effectively compete for land when other business zones offer a more permissive regime?

16.6 For these reasons, I disagree with the TRL submission that the presence of existing commercial, office and retail activities within parts of the notified GIZ means that the BMUZ is most appropriate for those locations that are already developed. A BMUZ is not necessary to provide for existing activities in the ODP Industrial A and B zones – these are addressed through existing use rights and consents. The opportunity costs to owners of existing developed sites is discussed earlier in this evidence (section 8) and I do not consider it likely that they will outweigh the benefits of sustaining the portion of the industrial economy that is reliant on an industrial zone and future growth of that activity.

16.7 TRL submit that the area currently zoned ODP Three Parks Business precinct should also be zoned BMUZ instead of GIZ (**Figure 11**). As already discussed, I consider that the economic rationale for zoning the Three Parks Business Precinct to GIZ is less apparent (the economic benefits are minimal) and I would support the rezoning of this land to some form of mixed use business zoning appropriate to this location and existing mix of activity (which has almost no industrial activity despite being a permitted activity). I therefore support in part the relief of TRL with regard to the ODP Three Parks Business precinct and I discuss this further with regard to the submission by Willowridge Developments Ltd (3220).

16.8 As shown in **Table 3**, less than half of all existing activities in both the Wanaka ODP Industrial A and B zones (developed areas) are activities that would be categorised as non-complying or prohibited under the GIZ provisions (i.e. 43-44%). This means that more than half of existing predominant activities are industrial and service activities intended in the GIZ.

16.9 The consequence of zoning the vacant capacity in the ODP Industrial A and B zones to BMUZ (as submitted by TRL) is that it will significantly reduce the likelihood that sites will be developed for industrial or service activity. Based on my understanding of the activity status table in the BMUZ, industrial activities are a mix of non-complying and prohibited (**Table 2**).

16.10 BMUZ (as sought by TRL) will also put greater pressure on the commercial viability of existing industrial and yard based businesses in this part of Wanaka as already high land values are driven upwards in these zoned areas due to a very permissive regime that includes many high value land uses. Overall, BMUZ significantly reduces the potential for vacant capacity to cater for long-term growth of industrial and service demand within the Wanaka Ward. This is an economic cost. The potential for opportunity costs associated with the notified GIZ are avoided with BMUZ and capacity for retail, commercial, residential and even visitor accommodation growth is provided, but this is a marginal benefit when multiple other zones in Wanaka do the same (and often in more efficient locations).

16.11 The TRL submission claims that the BMUZ is the most appropriate for the already developed (mixed-use) areas but also the Tussock Rise land even though this area is greenfield land. The submissions states (page 6) that "*Unlike the TRL property, or other developed areas within the operative Industrial A and B zones, the rezoning of vacant land south of the oxidation ponds to General Industrial is supported as it is not already subdivided or developed, does not directly adjoin residential activity, and could genuinely be developed in accordance with the notified General Industrial zone provisions*" (emphasis added). While I note that the vacant land south of the oxidation ponds would adjoin residential land at the easterly end (albeit a minor interface), I consider that the TRL site meets all three conditions. It is not already sub-divided and developed, has a building restriction area that will create a buffer with neighbouring residential land (an approach that has been effective in the plan change 46 land[46]) and can genuinely be developed for industrial and service activity under the GIZ.

16.12 In my view, the TRL submission does not adequately explain why the TRL site warrants BMUZ and is grouped with the existing developed areas of ODP Industrial A and B. As vacant capacity surrounded on three sides by mixed use development – of which, on average over half

46 The Ballantyne Ridge area is fully sold-out Industrial B subdivision (with several sites now under construction) with an adjoining low density residential zone that is progressing through what I believe is a 200+ lot subdivision process at present – Alpine Meadows). There is a buffer area between the two zones.

is industrial and service activity - the TRL site has high strategic value as commercially feasible GIZ.

16.13 Conversely, the intent of BMUZ is to deliver a high-amenity mixed-use environment. I do not consider that the existing areas of ODP Industrial and B zone surrounding the TRL site currently constitute a high-amenity environment. When considering the feasible alternatives for creating additional capacity for a high-amenity mixed-use business zone, I think that Three Parks has considerably more strategic value than the TRL site located in the back of the Wanaka industrial area.

16.14 In paragraph 14 of the submission, TRL states that "*changing the zoning of the TRL site and or the wider Wanaka Industrial area to BMUZ will not unduly reduce the business development capacity*" (page 4). It is correct that switching one business enabled zone for another business enabled zone will not affect the total when considered in that context. This is not however the relevant issue. It is the loss of industrial zone capacity that is.

16.15 I have considered the implications of rezoning the current vacant capacity[47] in the following notified GIZ areas (cumulatively in the order specified) to a permissive business zone (of some form) that is unlikely to deliver capacity for industrial and service activity and in accordance with the relief sought by the TRL submission (**Figure 11**). In other words, using the BDCA Alternative Capacity Scenario I have tested the impact of incremental reductions of industrial capacity on the overall short, medium and long term sufficiency of zoning proposed under Stage 3 as follows:

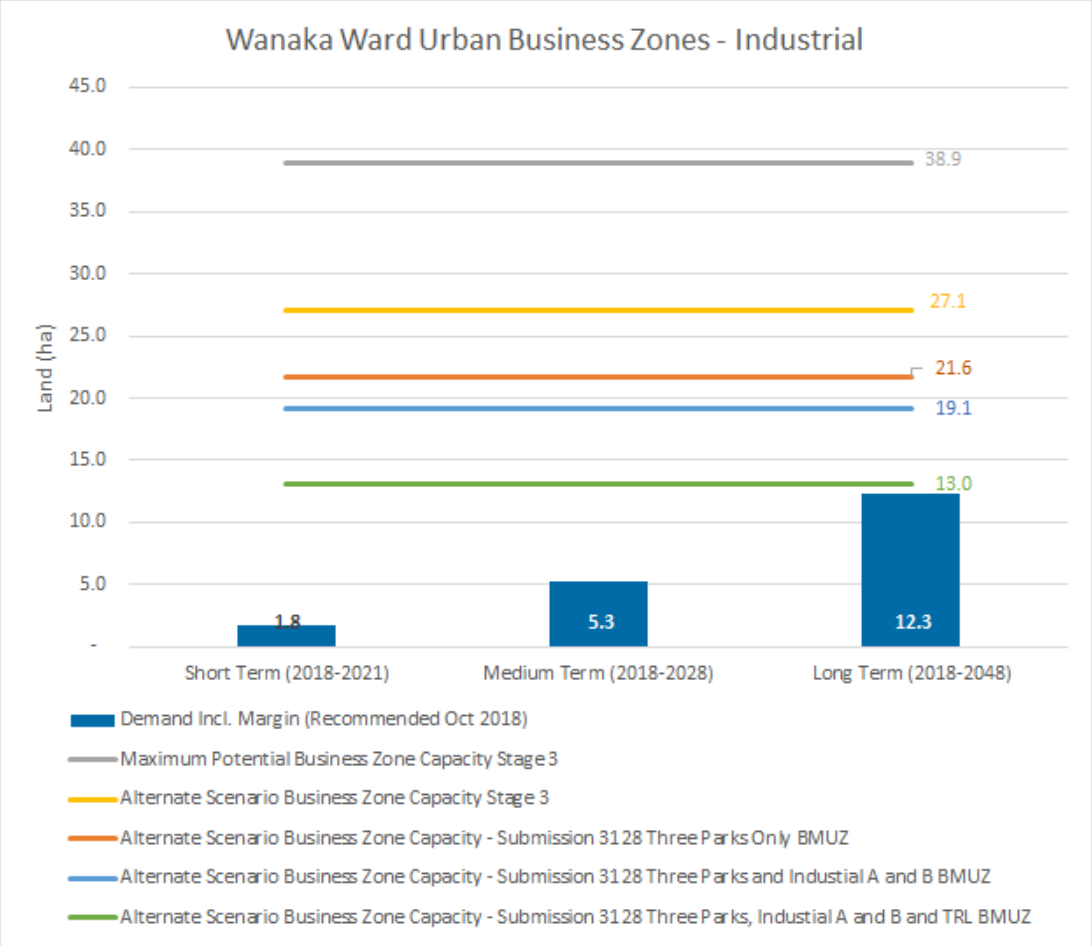
(a) Less Three Parks GIZ.
(b) Less ODP Industrial A[48] and B (existing developed areas interspersed with some vacant sites).
(c) Less the Tussock Rise land.

47 The BDCA includes 'under construction' and even consented space as 'Vacant'.
48 For this analysis, I am not able to easily separate the Industrial A zone requested to be retained as GIZ from the rest of the Industrial A zone requested to be BMUZ in submission 3128. There is some vacant capacity (two parcels estimated at 0.41 ha total area) in this strip of subdivided parcels which will be excluded from GIZ in the model, so the results will underestimate the capacity for industrial development under this submission scenario by 0.41 ha).

16.16 I have not been asked to specifically consider the TRL submission point relating to the zoning of the ODP Ballantyne Mixed Use Special Zone to PDP Active Sports and Recreation Zone in Stage 3. My assessment therefore considers this land as a non-business zone in accordance with the notified stage 3 zoning. I do however comment briefly on this further below.

16.17 **Figure 12** shows that *if* the ODP Three Parks Business precinct is not zoned GIZ (in accordance with the TRL submission), then an estimated 5.44 ha of vacant industrial capacity (as defined in the BDCA) is removed and capacity under the Alternative Capacity Scenario drops from 27.1 ha to 21.6 ha in the Wanaka Ward (orange line). *If* the areas of ODP Industrial A and B (north of Frederick Street and including the existing subdivided parcels on the south side of Frederick Street) are also not zoned GIZ (in accordance with the TRL submission), then an estimated 2.5 ha of vacant industrial capacity is removed and capacity under the Alternative Capacity Scenario drops further from 27.1 ha to 19.1 ha (blue line). Last, *If* the TRL site is also not zoned GIZ (in accordance with the TRL submission), then an estimated 6.1 ha of vacant industrial capacity is removed and capacity under the Alternative Capacity Scenario drops further from 27.1 ha to 13.0 ha (green line).

***Figure 12** – Submission 3128 (in part) Impact on sufficiency of industrial capacity in the Wanaka Ward (Alternative Scenario and Stage 3 Zoning Base)*



16.18 This would leave only the new notified GIZ land proposed south of the oxidation ponds for industrial development (8.36 ha of estimated vacant capacity) and the Ballantyne Ridge area (an estimated 4.68 ha of vacant capacity) (refer **Figure 10**[49]). This is 13.0 ha of GIZ vacant capacity to meet long term demand for industrial type development in the Wanaka Ward of a projected 12.3 ha (inclusive of a margin).

16.19 While the BDCA model (under these assumptions) shows a marginal surplus of capacity by 2048, I consider there to be a high degree of risk that this scenario of zoning proposed in the TRL submission could still result in a shortfall of industrial capacity in the long term. This risk is associated with:

49 Also refer Figure 11 which shows the TRL relief, although my analysis above does not show the rezoning of half the Active Sports and Recreation Zone to GIZ as sought by TRL.

(a) Potential for a higher growth rate than the one modelled (the current demand projections run off a projection developed in October 2018).

(b) I am uncertain what may have already been consented in the Ballantyne Ridge ODP Industrial B subdivision to be rezoned GIZ and the degree to which this will cater for industrial and service growth.

(c) The BDCA assumes that vacant capacity in the ODP Three Parks Business precinct would provide for industrial and service activity *if* zoned GIZ. With much of this vacant capacity already under construction or consented this may not be going to provide for industrial and service growth. This means that the Alternate Capacity Scenario may already overstate industrial capacity under Stage 3 zoning.

16.20 Combined these potential outcomes make a shortfall of capacity more likely in the long term than able to be shown in the BDCA. In reality, the capacity that can be most relied upon to deliver industrial and service growth under the GIZ is the greenfield areas – which includes TRL site and the area south of oxidation ponds in the notified zoning (14.4 ha). Zoning the ODP Industrial A, B and Ballantyne Ridge Industrial B areas to GIZ provides the potential for a further 7.2 ha of industrial and service capacity under the GIZ (if not already consented for other activities).

16.21 **Figure 12** and my description above does not take into account the TRL submission's relief for a portion of the notified Active Sports and Recreation Zone to be instead zoned GIZ. This would create additional greenfield GIZ capacity and would help to mitigate the risks of a long term shortfall discussed above[50].

16.22 Overall, the TRL site represents an important area of vacant development capacity within the Wanaka urban boundary. From an economic perspective I consider that this land is more appropriate to provide for industrial and service demand under the GIZ than additional

50 Under the Interim BDCA Update and using the ODP and PDP (Decisions Version on Stages 1 and 2) zoning), the Ballantyne Road Mixed Use Special Zone 20.4 ha gross) has an estimated 14.9 ha of vacant net developable land area once precinct A is excluded and allowing for 25% of land area to be used for road reserve/access. Under the Alternative Capacity Scenario 11.91 ha would be likely to develop for industrial land uses (in precincts C and D) under operative zoning.

BMUZ as submitted, as this has been provided for in Anderson Heights and Three Parks. Retail, commercial, visitor accommodation and other activities enabled in the BMUZ are also provided for in a range of other zones (the Town Centre Zone, LSCZ, Northlake Special Zone, Visitor Accommodation Sub-Zone and the PDP Three Parks Commercial Zone).

16.23 I do not support the zoning of the existing developed areas of ODP Industrial A and B to BMUZ instead of GIZ for the reasons discussed above.

16.24 In terms of the alternative relief to zone part of the TRL site to BMUZ and the balance to LDSRZ, the loss of industrial capacity is the same as if the whole site is zoned BMUZ. I do not support this relief for the reasons already discussed, namely the strategic value of this greenfield site to cater for industrial and service demand growth.

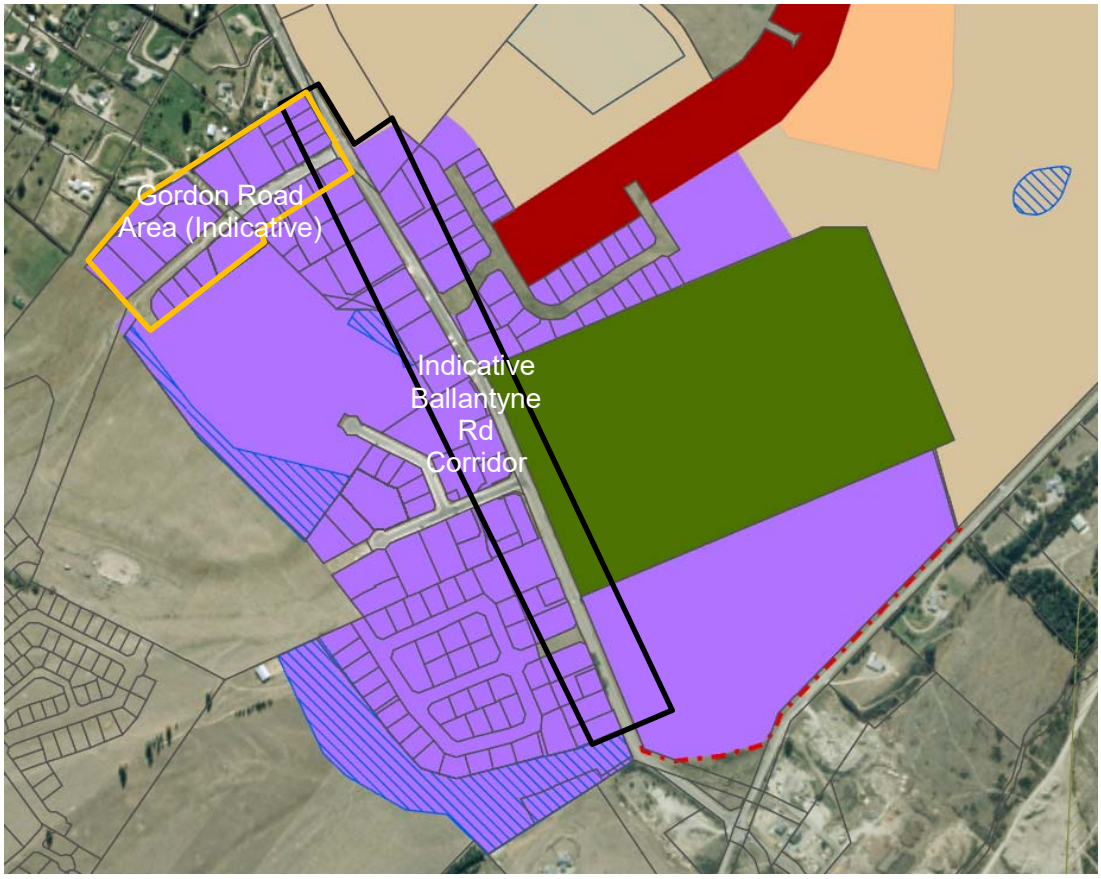
17. SUBMISSIONS 3234, 3235, 3266, 3286, 3298, 3300 – BREEN CONSTRUCTION ET AL

17.1 This group of submissions is based on broadly similar description of issues and they seek similar, although not identical relief. I respond to them as a group, unless otherwise stated. The submitters seek relief that amends notified GIZ provisions to allow for Office, Commercial and Retail activities not ancillary to industrial or service activity use, or alternatively, if Office, Commercial and Retail activities are not allowed for throughout the entire zone, then relax the provisions on Office, Commercial and Retail activities along the Ballantyne Road corridor (**Figure 13**) to enable smaller lots fronting Ballantyne Road and larger, industrial lots behind.

17.2 Reasons for the relief include (but are not limited to) the existing nature of development in the ODP Industrial A zone notified as GIZ which includes a number of office, retail and commercial activities established under that zone; the smaller lot sizes already developed in that operative zone area being unsuitable for industrial and service activities; existing office, retail and commercial activities may wish to

expand in the future; there is not a great need for a sole industrial zone in Wanaka as manufacturing growth can be directed to Cromwell; the FDS will provide additional capacity for industrial activity so flexibility can be provided in this locality; Ballantyne Road is an important gateway for Wanaka; and 'hard industrial' activities may need to be relocated to more rural areas where reverse sensitivity effects can be avoided.

Figure 13 – Broad Indication of "Ballantyne Road Corridor" and Gordon Road (Applied to Notified Stage 3 Zoning)



17.3 The requested relief is based in part on the proposition that the GIZ does not provide for existing activities. I have provided evidence above on what the potential (economic) implications of GIZ zoning are on existing uses, including the matter of existing use rights / existing consents and opportunity costs for landowners (section 8). My conclusions apply to these submissions also in that regard.

17.4 The submissions state that "*Offices non-ancillary to an industrial or service use are a critical part of the zone, to enable the existing*

commercial and industrial businesses to continue" (section 1). I have reflected on whether this meant that the offices enabled other (unrelated) commercial and industrial businesses to continue, or they enable commercial and industrial businesses (and/or premises) related to the offices (but in a different location) to continue. Based on an examination of the office based businesses in question, I have assumed the latter.

17.5 Predominant Office activities in the Wanaka ODP Industrial A zone is identified as 20.8% of the use (third highest) based on the Council ground truthing data. This was 16 office based businesses out of 79 (and excluding residential units). I have reviewed the original data from Council and those 16 offices are made up as follows:

(a) 2 tourism related businesses (and I note one has since relocated to the Three Parks Business Sub-Zone, although the space may have been re-tenanted by another office based building). I have not confirmed this.
(b) 2 accounting firms.
(c) 1 graphic design firm.
(d) 1 agricultural service firm.
(e) 1 automotive related firm.
(f) 4 construction related firms.
(g) 1 funeral service business.
(h) 1 fashion design business.
(i) 1 architect business.
(j) 1 visitor accommodation service business.
(k) 1 export business (interior design products).

17.6 While I agree that office based activity is critical to many businesses (i.e. is an operational requirement), the submission does not provide further evidence to establish why the existing office based businesses are critical to the ODP Industrial A Zone. Critical implies that there is a high degree of dependency on them and that that dependency requires those offices to be in the ODP Industrial A zone area. Only two of the construction related firms had ancillary service activity on site. However, the rest have no ancillary activities on site identified by the

Council surveyors. I consider it possible that many (if not most) of these 14 office based business could be equally as commercially viable (and still provide the operational support to their related businesses) if they were located in office space in a different zone in the Wanaka urban area.

17.7 While existing use rights and consents will allow these office-based activities to continue under the GIZ at their current scale and intensity, I do not consider that the submissions by Breen Construction et al establish a rationale for why further such businesses should be provided in the GIZ. I discuss this further below.

17.8 I agree with the submissions that the notified provisions for the GIZ combined with the application of existing use rights may not allow these existing office-based buildings to expand beyond current resource consents. This is an opportunity cost to landowners and their tenants alike. However, it is also common for business to find new premises when they demand more space (or equally less space). In most cases, shifting to another tenancy will be more cost effective that expanding an existing building if there are other options available in the marketplace (and this avoids any loss of productivity during a construction period).

17.9 As Three Parks continues to develop built space, I believe the churn of premises within Wanaka will only increase. Often, growth means more staff which can mean more vehicles. Sometimes existing sites cannot accommodate all demands for space and so expanding the office space may not solve the issue of vehicle parking if this is also required on-site. Overall, I do not think that the constraints to expand existing office space in the GIZ is a sufficient reason to enable commercial, office and retail activities in the GIZ as sought by Breen Construction et al.

17.10 The submissions evaluate alternative locations for larger office space. Based on my understanding, the notified Three Parks Commercial Zone also permits commercial activities (which includes offices) but was not identified. The other examples provided (LSCZ, Wanaka Town Centre and BMUZ), and their stated constraints, so not appear to take

into account the building height enabled in those zones (that allows offices to be spread over more than one floor). Nor is the potential to develop/redevelop adjoining sites to enable a larger development recognised.

17.11 The ability to include retail on the ground floor in the Town Centre Zone for example contributes to the commercial feasibility of developments that incorporate office space on upper floors. It is also relevant that as the various business related zones in Three Parks develops, there are a range of businesses that will relocate from the Anderson Heights BMUZ (and Town Centre Zone for that matter), freeing up space. Mitre 10 and Aspiring Vet are two examples of businesses relocating to Three Parks and it is highly probably that there will be more churn in the short to medium term. This process will free up more opportunities for redevelopment and leasing of vacated tenancies in this BMUZ location than may have existed in the recent past.

17.12 The Breen Construction et al submissions state that the FDS will zone new industrial areas in the Wanaka Ward (point 2). While I am not aware of the details or progress of the Council's spatial plan and FDS, I believe it is premature to make such a conclusion. The FDS also makes no 'zoning' decisions – that is for the district plan to do. An FDS can 'identify' locations suitable for additional industrial capacity but any such areas would still need to be zoned (and are subject to appeal like any plan change). The NPS-UDC only requires that long term capacity is 'identified' in a growth strategy, rather than zoned in a district plan. Reliance on the uncertain outcomes of the FDS is not a sound reason to give the GIZ a permissive regime. Doing so would exacerbate the need to find more industrial capacity sooner – this is not an efficient use of the current land resource within the urban growth boundary.

17.13 The submissions identify that rising land values will make industrial activities unsustainable and "*these more industrial uses will be forced out of the central Wanaka and further into the outskirts. The cost of having an 'industrial' storage yard in this area with Wanaka land prices will be shortly unsustainable. Therefore, the long term prospects will ultimately force industrial land out of Wanaka Town, simply as a result of land value*" (point 3).

17.14 I agree with this observation and addressed this same issue in my Industrial Report. Part of the intent of the GIZ is to address this very issue and slow of mitigate the rise in land value which are impacting on the commercial viability of industrial and service activities (particularly the more land extensive activities). Land valuation is based on the highest potential use. By prohibiting non-ancillary office, commercial and retail activity, these high-value land uses are excluded from consideration in future land valuations within the GIZ. That said, while the GIZ may be effective in slowing the rise of land values in the GIZ, I do not consider it likely that they will reduce them from their current level due to the effect of wider economic drivers in Wanaka and the district as a whole.

17.15 Relatedly, the scenario presented in the submissions of industrial, service or yard based activities being "*forced out*" of Wanaka and into more rural locations is an outcome that I believe should be avoided where possible. If industrial, service or yard based businesses are required to locate further from their customers (whether they are other businesses or households) and potentially their suppliers of intermediate goods, this will result in increased costs. This may impact on their viability and/or result in higher costs being passed on to their customers. It will also generate additional vehicle travel and reduce productivity due to the increased cost of travel time.

17.16 While many districts provide industrial zones in rural locations (and Coneburn may fall into this category in QLD although is included within an UGB), I cannot think of many (or any) districts that do not include industrial zoning within or directly adjoining the urban area. Providing industrial zoning where reverse sensitivity effects can be managed within the urban environment of QLD contributes to the efficiency of the industrial and wider economy.

17.17 Overall, I do not support the relief to allow office, commercial and retail activities that are not ancillary to industrial and service activities. There are alternate, commercially feasible zones for these activities. I have already discussed elsewhere in my evidence the economic costs associated with enabling higher value land uses in the GIZ (section 9).

A permissive regime (as requested) does not address the current issues facing industrial activities – issues that the submitter has also identified.

17.18 NPR Trading Ltd (Submission 3298) also requests that Office, Retail and Commercial activities be enabled in the GIZ generally, or alternatively that the provisions for Office, Retail and Commercial activities be relaxed along Gordon Road, or alternatively zone Gordon BMUZ (while also deterring residential and visitor accommodation activities). The submission does not provide a map of the potential extent of the proposed BMUZ, but I have included an indicative area to highlight Gordon Road in **Figure 13**.

17.19 The submission's rationale for the relief along Gordon Road is "*to facilitate a more flexible use of this area and reflect the existing uses and lot sizes*". My observations are that Gordon Road has a number of large lot sizes as well existing industrial and service businesses. I do not support this relief for the reasons explained elsewhere in this evidence (namely the consequences of BMUZ zoning on the commercial viability of industrial and service activities). Gordon Road also includes some vacant capacity which can contribute to the future growth of industrial and service activities (if not already consented). The GIZ will be the most effective at achieving that outcome by redirecting more commercial, retail, larger food and beverage outlets and recreation facilities to zones provided elsewhere (and in close proximity to the GIZ).

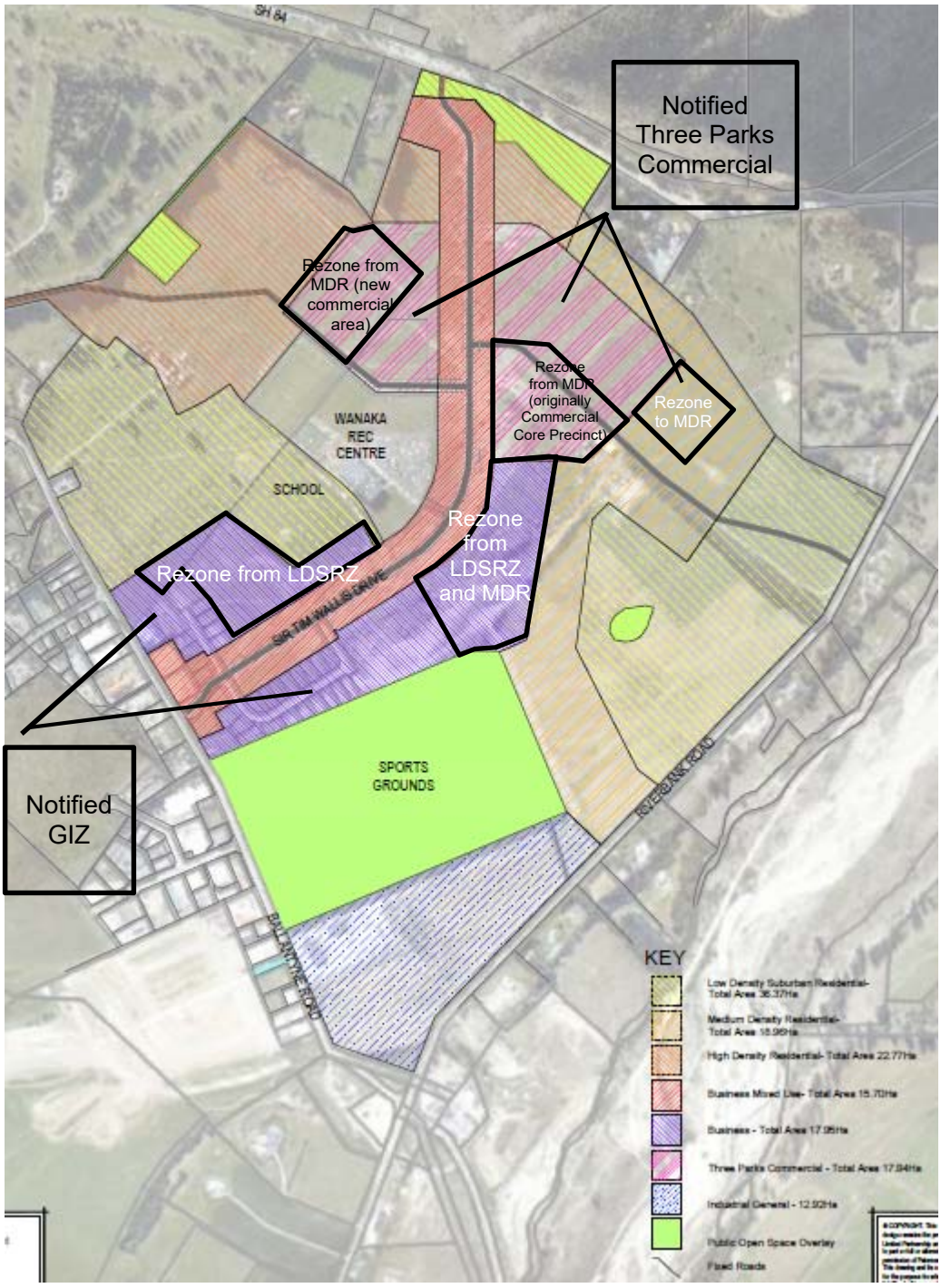
18. SUBMISSION 3220 – WILLOWRIDGE DEVELOPMENTS LTD

18.1 I have been asked to provide evidence on two aspects of the Willowridge Developments Ltd submission (3220) on the notified zoning in Three Parks: the area notified as GIZ (both its extent and zoning) and the extent of the area notified as Three Parks Commercial.

18.2 With regard to these two points, Willowridge Developments Ltd seek that the area notified as GIZ be zoned Three Parks Business Zone and that a portion of land notified in Stage 3 as LDSRZ and MDR be zoned

Three Parks Business to further expand that zone. Willowridge Developments Ltd also seek that two areas notified as MDR be rezoned to Three Parks Commercial Zone and one area of Three Parks Commercial Zone be rezoned to MDR. The net result is an expansion of that zone (and a different layout). The zoning sought by the submission is summarised in **Figure 14**. I have indicatively shown the expansion areas.

Figure 14 – Zoning Relief Sought by Willowridge Developments Ltd



Appropriateness of GIZ proposed in Three Parks

18.3 I have read the s32 report for the Three Parks area. Paragraph 7.42 of that report indicates that the appropriateness of applying GIZ to the ODP Business Precinct in Three Parks was based on the similarities of the provisions, which enable industrial and service activities and avoid residential and other potentially sensitive activities in the zone. However, in paragraph 7.40, the report acknowledges that non-complying activities have been consented in the ODP Business Precinct.

18.4 As discussed elsewhere above, the current mix of activities in the ODP Three Parks Business precinct shows poor alignment with the GIZ provisions with an estimated 79% of already existing or known activities likely to be non-complying or prohibited (**Table 3**). This is much higher share than any other operative zone notified as GIZ and is therefore a unique situation.

18.5 The Three Parks s32 has retained the extent of the ODP Three Parks Business precinct. I agree with the approach that the extent should not be reduced as a result of the Stage 3 rezoning. The reason for not extending the zoned area is logical in that the BDCA 2017 did not indicate the likelihood of a shortfall that might need to be rectified. Further, retaining the existing extent, avoids the reduction of capacity for other land uses as noted. However, the strategic value of expanding an existing business zone within the urban growth boundary is also important to consider. Such benefits cannot be informed by the BDCA and need to be considered at a higher level[51].

18.6 The Willowridge Developments Ltd submission seeks to (1) create a new bespoke zone (Three Parks Business Zone) for what was the Business precinct and (2) extend the area of the zone. I comment on these in turn:

(a) The submission states that the uptake of the Business precinct has been rapid, and it is nearly fully developed. This

51 As such, it may not have been a key focus of the s32 evaluation process. This is reflected in paragraph 7.6 of the s32 report.

is consistent with my observations and is reflected in the Interim BDCA Update. I also support the view that Three Parks is well suited to trade suppliers. The Business precinct has also been effective in catering for larger show-rooms that may incorporate a service activity.

(b) I support the position of the submission that the GIZ is not the most appropriate zone for the Business precinct, particularly if trade suppliers remain a prohibited activity. Earlier in my evidence, I have suggested that a mixed use type zone might be more appropriate than GIZ. This was based on the current mix of activity which includes a mix of office, trade suppliers, a café, commercial activities and a gym (among other activities). A BMUZ[52] would introduce the potential for residential and visitor accommodation activity and that may not be appropriate or efficient in this location in my view. As such, I am not opposed to the application of a proposed bespoke Three Parks Business Zone. This may be appropriate, and I consider it potentially more appropriate than the GIZ in its notified form[53] (although a dis-benefit of this approach is that it adds an additional zone to the PDP).

(c) Based on my understanding of the planning provisions, the Three Parks Business Zone proposed by Willowridge Developments Ltd would have similar provisions as the ODP Business precinct. Compared to the BMUZ, there is some overlap but also some clear differences. Should either of these alternative business zones be applied, it would impact most strongly on the development of vacant land area (which may be very little by the time any new zone becomes operative if the extent remains the same, although would be more relevant if the zone area was extended to include more greenfield capacity as submitted). Protecting existing activities from the pressures of land-use change is another benefit over the long term (but not especially relevant in this location in the short-medium term. On balance, I consider that the proposed Three Parks Business Zone may be more effective at achieving this than the BMUZ (as it precludes

52 This was the relief of Tussock Rise Limited.
53 If the GIZ were amended to provide for some form of trade suppliers, then this would be a slightly better fit with existing activities and demand for this location than the notified GIZ provisions.

most retail, office, residential and visitor accommodation development options which are all high value land uses). There activities are directed nearby to the BMUZ proposed along the main street (which I support).

(d) Willowridge Developments Ltd submit that there is insufficient undeveloped land zoned for business activity in Wanaka and on that basis considers that business land within Three Parks needs to be increased. I note, the BDCA considers the following categories: Industrial, Commercial and Retail and relates primarily to the building typologies typical of those categories. As such, it does not consider the sufficiency of 'business' land per se, which I take to mean land that provides for the activities specifically enabled in the proposed Three Parks Business Zone rather than an all-encompassing term. The BDCA is also not designed to inform the sufficiency of a specific zone type, i.e. BMUZ or ODP Three Parks Business precinct. This is the limitation of the BDCA (which is designed to adhere to MfE guidance under the NPS-UDC). It is therefore difficult to validate the statement that there is insufficient vacant capacity for 'business' land in Three Parks or Wanaka Ward generally using that model.

(e) I agree that the current BMUZ in Anderson Heights has limited vacant capacity (although some redevelopment potential in the short-medium term) and the ODP Three Parks Business precinct is filling fast and can be expected to be fully developed in the short term. There is clearly strong market demand for the land on offer in the proposed Three Parks Business Zone and extending the zoning in a cohesive manner as submitted will allow for more of the same sort of activity growth over the medium-long term. This will be particularly important if trade suppliers are prohibited from the GIZ provisions as notified.

(f) It is appropriate under the NPS-UDC that feasible capacity is zoned to cover demand growth over the medium term, and with a further margin on top. It is appropriate to err on the side of over-supply than undersupply when there is uncertainty around sufficiency.

(g) I also support the cohesive expansion of existing business zones where this option is available as it creates greater market and urban efficiencies compared to dispersing small amounts of zone area in new locations to cater for growth[54].

(h) There are also strategic benefits to securing additional 'business' land resource within the urban boundary of the Wanaka Ward to cater for future growth.

18.7 With these factors in mind, I consider that extending the area formally zoned Three Parks Business precinct in the ODP as submitted is a strategic opportunity that should be captured at this time and will contribute to the economic wellbeing of the current and future community. Once the residential areas of Three Parks are developed, the opportunity to expand the business areas will be lost.

18.8 My support of this submission point is specific to the merits of the location of this submission – particularly the trade-off of residential capacity in this case and the ability to cohesively expand an existing business zone.

Appropriateness of extent of the notified Three Parks Commercial Zone

18.9 The Three Parks s32 report does not provide any clear economic evidence that supports the removal of an area from the ODP Commercial Core precinct in Three Parks. Willowridge Developments Ltd is opposed to this proposal in their submission.

18.10 Again, the BDCA 2017 showed a surplus of commercial and retail capacity to cater for long term demand in the Wanaka Ward, and this applies also in the Interim BDCA Update. However, the impact of the reduction of commercial and retail capacity in the Wanaka Ward as a result of the stage 3 rezoning (largely in Three Parks) is very apparent[55], even if it does not alter the conclusions of long term sufficiency. The implication of stage 3 zoning changes generally has been discussed above in paragraphs 6.3-6.8.

54 The exception to this rule is the provision of LSC Zone which is intended to cater for residential areas as they expand to maintain an overall level of accessibility to convenience retail and service activity.

55 Refer diagrams in the Interim BDCA Update Addendum Report in Appendix B that show the operative extent of the commercial core precinct and the deferred commercial precinct.

18.11 Reducing the land area (capacity) of the operative Commercial Core and Deferred Commercial precincts[56] in the notified Three Parks Commercial Zone[57] is contrary to the stated purpose of the review of the Three Parks Special Zone: "*This review provides an opportunity to simplify the extent of provisions without eroding the intended development provided for*" (paragraph 7.2, Three Parks s32). The Three Parks s32 report states that the development provided for (intended) in the ODP Three Parks Commercial Core precinct (and Deferred Commercial precinct) has been the subject of considerable evaluation and has been a consideration in decision making on proposed retail developments throughout the ward in recent years. The operative extent of capacity in the Core *and* Deferred Commercial precincts has been factored into the BDCA 2017 and the Interim Update.

18.12 It seems contradictory then to zone a smaller area in Stage 3 (transfer of some area to BMUZ notwithstanding) with no supporting economic rationale. I therefore support the Willowridge Developments Ltd submission to reinclude the area of the operative Commercial Core precinct that was zoned MDR in Stage 3 to help maintain the status quo of long-term retail (and commercial) development capacity[58].

18.13 I also broadly support the submissions relief to zone a new area of Three Parks Commercial Zone that was notified as MDR in Stage 3 (and was not previously part of the operative Core or Deferred precincts) for the same reason. This does however go beyond the status quo (operative) capacity of both precincts by approximately 1 ha based on my calculations[59].

18.14 These two areas of additional commercial land have strategic value to provide for medium-long term large format retail growth and once the residential areas around the Three Parks Commercial Zone are developed, that opportunity to expand in the future will be lost. Three

56 Approximated at just over 16 ha (gross) and excluding the main street area.
57 Approximated at just under 11 ha (gross) and excluding the main street notified BMUZ area.
58 It is noted that the Willowridge has not requested that the full extent of the Deferred Commercial Sub-Zone be retained as part of Stage 3. The sites they have requested to be included/reinstated areas of higher strategic value given its location to the rear of the main street.
59 The Three Parks Commercial Zone requested in the relief of Willowridge Developments Ltd is stated in their submission as being 17.9 ha (gross).

Parks Commercial Zone is considered the most efficient use of those two land areas.

Natalie Dianne Hampson
18 March 2020

Appendix A

Economic Assessment of Queenstown Lakes District's Industrial Zones - Stage 3 District Plan Review, May 2019 (Industrial Report)

Economic Assessment of Queenstown Lakes District's Industrial Zones

Stage 3 District Plan Review

22nd May 2019 – Final

m.e consulting

Economic Assessment of Queenstown Lakes District's Industrial Zones

Stage 3 District Plan Review

Prepared for

Queenstown Lakes District Council

Document reference: Industrial Zones Economic Assessment – Final.docs

Date of this version: 22nd May 2019

Report author: Natalie Hampson

Director approval: Greg Akehurst

www.me.co.nz

Contents

Figures

Executive Summary

This report, which informs the Stage 3 District Plan Review, provides an economic assessment of the Queenstown Lakes District (QLD) 'industrial economy' and the role of the Industrial, Industrial B, Ballantyne Road Mixed Use Special Zone and the Gorge Road (Operative) Business zones in meeting the current and future needs of that economy.

M.E has analysed a range of spatial economic datasets including the StatisticsNZ Business Directory, the QLD Economic Futures Model and Council's own survey of current business activities in each of the above mentioned zones to identify and describe QLD's industrial economy and examine its structure, economic role, distribution, recent changes and projected future growth. The industrial economy relationships between each part of the district are examined, including the relationships between QLD and Cromwell. The business mix within each of the zones is also examined, to identify similarities and differences.

QLD's current (2017) industrial economy comprises of businesses involved in Manufacturing; Construction; Waste Collection, Treatment and Disposal; Wholesaling; Road Transport; Delivery Services; Storage; Vehicle, Machinery and Equipment (construction related) Hire; Automotive, Appliance, Machinery and Equipment Repair and Maintenance Services; and industrial Dry Cleaning (non-retail component). QLD's industrial economy is unique to the district and not especially influenced by industrial economy trends happening at the national level. The mix of activities differs from the national average and other districts of a similar population size.

QLD does not have a significant manufacturing base. The main manufacturing businesses are those supplying the construction industry which dominates the industrial economy and accounts for the greatest share of recent growth. Wholesaling also makes up a small share of businesses, although is growing quickly, so can expect a slightly greater role in the future.

Overall, QLD's industrial economy is characterised by small scale businesses that serve local level demand. While there is some dependence on inputs supplied from the rest of New Zealand, the industrial economies in Wanaka and Queenstown-Arrowtown are largely self-sufficient with only limited trade between the wards. Cromwell's industrial economy, while characterised by slightly larger businesses, is smaller in size than both Queenstown and Wanaka. It serves a portion of QLD's demand but is more dependent on output from Queenstown and Wanaka, than the other way around.

Industrial economy businesses operate in a range of physical forms including factories, warehouses, workshops, yards and offices (or a combination of these as ancillary activities). Only a small portion (between 5-13%) of industrial economy businesses have a functional or operational need to locate in an industrial zone (2017). Those that do, tend to be relatively larger (in employment terms) and relatively more 'heavy industrial' in nature. These include businesses that operate in large spaces (i.e. warehouse style buildings or workshops), require onsite storage of machinery, vehicles or materials (i.e. yard based activities), generate large truck movements, and/or have externality effects such as dust and noise.

A large share of the industrial economy generates no demand for zoned capacity (industrial or otherwise) and does not need to be provided for in a district plan sense. These businesses (found in the residential

zones) are dominated by tradesman in the Construction sector, or very small-scale home-based manufacturing businesses.

QLD's industrial economy is growing rapidly and has demonstrated growth rates faster than the rest of the district's economy. This is expected to continue, with the future structure of the industrial economy likely to be similar to what's here today. As such a 'business as usual' outlook is appropriate to guide future planning. However, there are a number of factors which are impacting on the viability of those industrial economy businesses that have a functional need to locate in industrial zones. These are matters which can be addressed as part of the district plan review process.

Notably, while the industrial economy overall has been growing, the industrial economy share of businesses in the district's industrial zones has been declining over time. This has occurred because of flexible zone provisions that have allowed, particularly in the Industrial Zone, a range of activities that do not have a functional need to be in an industrial zone (and can locate in other zones such as Town Centre, Business Mixed Use and some Special zones).

Office and commercial activities (that are not ancillary to other activities on site) are the biggest concern, and Glenda Drive contains several examples of intensive forms of office development. Enabling a mix of activities in the industrial zones, combined with rising land values, drives landowners to maximise returns by supplying premises that will attract the highest value land use possible. Land extensive industrial activities are then priced out of the market. With diminishing feasible capacity remaining in the zones (with Coneburn and Ballantyne Mixed Use zones still in a holding pattern) it is important that this trend is halted else existing industrial activities will become increasingly vulnerable and the growth of a critical portion of the local industrial economy will be constrained.

This report provides a number of high-level recommendations for managing activities and effects in and on industrial zones. Some flexibility may be appropriate, particularly when it does not compromise ground floor industrial activities but providing greater protection for industrial activities that have a functional need to be in industrial zones is key. The QLD economy has grown considerably since the Industrial zone was created. The market is now large enough to sustain a less mixed-use industrial zone and this will lead to greater efficiencies for the economy as a whole.

1 Introduction

Queenstown Lakes District Council (QLDC) are undertaking a rolling review of their operative district plan. As part of stage three of the review, Council are examining the provisions that manage the Industrial, Industrial B, Ballantyne Road Mixed Use Special Zone and the Operative Business Zone in Gorge Road. To inform the evidence base of that review workstream, Market Economics (M.E) has been commissioned to provide an economic assessment of the Queenstown Lakes District (QLD) industrial economy and the role of the above industrial zones in meeting the current and future needs of that economy.

1.1 Research Objective

Council seeks a greater understanding of the QLD industrial economy – its geography; its structure/composition (including any evidence of functional clusters); its changing role/profile in the context of the wider district, regional and national economy; its future direction; demand growth; its land use and built form requirements; and the way in which it interfaces with other sectors, zones and customers (whether other businesses or final consumers (households)). These aspects inform the potential changes anticipated in the QLD industrial economy that will need to be enabled and managed through industrial zone provisions over the life of the proposed district plan (PDP). It also informs the diversity of land use activity that industrial zones need to cater for (now and in the future). At the highest level, this requirement helps ensure that industrial zones (and associated provisions) will be 'fit for purpose' in the medium-term future.

Council also seeks greater understanding of the factors that affect the viability and vulnerability/resilience of industrial land use activities in QLD – both detrimental and helpful factors. This is a combination of:

a) macro-economic factors that are influencing industrial economy trends nationally (imports, exports, prices/competition, strategies, incentives, regulations, trade agreements etc);

b) district wide economic factors that are influencing the QLD industrial economy (growth, land supply/capacity, land/lease prices, housing affordability, skilled and unskilled workforce, living costs, access/traffic congestion, support services, logistics etc); and

c) micro-economic factors that are influencing industrial zoned land (competition from other (higher value) land uses, land ownership, infrastructure, planning rules and standards that influence built form (development) and activity on site, decision making and precedent effects).

This component is wider than just an assessment of the effectiveness of operative industrial zone provisions, it considers – from the perspective of the industrial business owner – the full range of factors that both facilitate and support the establishment and operation of that business in QLD and/or constrain its current operation and its ability to grow/adapt in the years to come. While district plan provisions may only be able to influence some of these factors, this *wider* perspective will help Council with its broader strategy of supporting the industrial economy.

The objective of the report is to address these two broad requirements. Where appropriate (and within M.E's expertise), recommendations are included on potential objective/policy directions that will better enable the sustainable management of the identified industrial zones. This includes providing feedback to Council team members on options and draft provisions as they develop. The economic assessment will help Council understand the scale and significance of different options, as well as their potential effectiveness and efficiency for the purpose of s32 report drafting.

1.2 Data, Scope and Report Outline

The assessment is limited to a desktop study of available data sources. This includes data from QLDC, Statistics New Zealand and M.E's proprietary datasets and models. At the time of drafting, the relevant district plan is the Stage 1 decisions version. Where mapping is required to support analysis in this report, the GIS zoning layer is based on the notified Stage 1 (and Stage 2 visitor accommodation sub-zones and open space) proposed district plan zones – being the copy already held by M.E. This has saved time in preparing this report and any differences to the Stage 1 decisions versions maps are inconsequential to the analysis and conclusions.

This report relies predominantly on Statistics New Zealand Business Directory data. This data (which is available as a time series) records business counts and employment in each meshblock according to the Australia New Zealand Standard Industrial Classification 2006 (ANZSIC). This data is the base standard for spatial economic analysis as it provides a consistent dataset for total New Zealand at a relatively fine spatial resolution. The ANZSIC structure is a concordance that allows 506 individual business types (also called 6-digit ANZSICs) to be aggregated up to broader groups and ultimately 19 economic sectors or 'divisions'. Similarly, meshblocks can be grouped easily to match ward, district and region boundaries.

The 6-digit ANZSIC classification defines businesses by their 'primary activities'. The ANZSIC framework identifies a list of mutually exclusive primary activities for each 6-digit ANZSIC, so there can be a variety of businesses that match the range of primary activities in any one 6-digit ANZSIC. Businesses are assigned to a 6-digit ANZSIC based on their primary activity only. As such, if a business sells clothes and footwear, but clothing is their primary activity, they are classed a Clothing Retailer.

A limitation of the Business Directory data for this study is that the 6-digit ANZSIC description of any business refers to its business type, but not the operational/functional form of that business. As such, it does not indicate if a House Construction business, for example, operates out of an office, a yard or is a self-employed tradesman that has no physical premises (although the data can give an indication of the average size of that business within a meshblock).

This is relevant as, the QLDC Stage 1 decisions version district plan refers to 'activities' that can or cannot occur in different land use zones. These activities relate to the operational/functional form of businesses which is necessary in order to manage effects in each zone. Those activities are not limited to specific ANZSICs. As such, enabling a 'yard based service activity' could in fact relate to a range of potential 6-digit ANZSICs.

It is important to keep this distinction in mind throughout this report, where analysis is strongly focussed on ANZSICs. The scope of the report (and associated discussion) seeks to bridge this gap so that the findings of the analysis translate into relevant resource management considerations for industrial zone planning.

Section 2 of the report describes QLD's industrial economy for the purpose of this report. It explores its current structure and role in the wider economy. It assesses its distribution and role by ward.

Section 3 examines linkages and trade relationships between the industrial economy in each ward of QLD and with areas outside the district. It identifies upstream and downstream activities supporting and sustained by the industrial economy in each location.

Section 4 takes the analysis down to the zone level and explores the role of the stage three review industrial zones relative to each other and other zones in the district.

Section 5 looks at recent changes in the QLD industrial economy; trends and changes that have led to today's industrial economy in terms of its structure and geography.

Section 6 looks forward at projected growth of the industrial economy and explores macro and micro level drivers that influence and impact on current and future industrial land use activities.

Section 7 provides an overall summary and recommendations for the review of the specified industrial zones. A number of appendices contain further detail which supports sections 2-6.

2 QLD's Industrial Economy

This section provides an overview of QLD's industrial economy. It describes how the industrial economy has been identified, what activities it comprises of, what role it plays in the wider QLD economy and how it compares to the industrial economy of other areas in New Zealand. We then examine how that industrial economy is spread across the district's wards and explore similarities and differences between those wards and relative to neighbouring Cromwell Ward in Central Otago District (COD).

2.1 Definition Approach

The scope of the industrial economy in QLD will differ depending on whether you take a traditional 'economic sectors' approach, a 'zone enabled activity' approach or a 'land use/building typology' approach. It is relevant to consider all three (and highlight the differences).

It is often stated[1] that the industrial sector (aka Secondary Sector) comprises those activities that fall within ANZSIC 1-digit categories of C (Manufacturing), D (Electricity, Gas, Water and Waste Services) and E (Construction). The benefit of this Secondary Sector approach is that it allows for consistent comparison across districts/regions and transcends what might or might not have been enabled in local planning provisions. The limitation of this approach is that it does not fully capture the various land use activities (i.e. functional forms) of businesses within these sectors. A business coded within Utilities might operate a site that is purely office based or a specialist plant (i.e. water treatment facility) or a yard-based operation – all of which might seek very different locations (zones) within a district. This traditional definition of industrial sectors also misses out a range of businesses that tend to seek an industrial zone (transport/freight companies, wholesalers and bus depots for example) – that is, there is sometimes a disjoint between defined industrial sectors and actual industrial land use.

By comparison, if the activities currently enabled in the District's industrial zones are used to guide the potential scope of the industrial economy you get a much wider set of activities as follows:

- The Industrial Zone enables (permitted or controlled) a wide range of activities as long as they meet site and zone standards, with only commercial recreation discretionary; non-ancillary retail, airport operation, visitor accommodation and factory farming non-complying; and new activities sensitive to aircraft noise in the Queenstown Airport Outer Control Boundary prohibited.
- The Industrial B Zone enables (permitted or controlled) a more focussed range of activities as long as they meet site and zone standards, with commercial, community, factory farming, airport operation, and specified non-ancillary retail activity non-complying. Only visitor accommodation, unspecified non-ancillary retail and non-ancillary offices are prohibited. Non-complying retail includes all wholesaling sectors, equipment hire, food and beverage outlets, automotive and marine supplies, garden and patio supplies and more.

[1] http://www.economywatch.com/world-industries/industrial-sector for example.

- The Ballantyne Road Mixed Use Zone variously enables (permitted or controlled) a more focussed range of activities as long as they meet site and zone standards, with hire equipment and motor vehicle sales discretionary; commercial activities (other than showrooms, offices and yard based services), community activities, education, industrial activities, service activities, health and day care facilities, licensed premises, factory farming, motor vehicle repair and servicing, entertainment and waste management facilities all non-complying. No employment-based sector is prohibited across all precincts of the zone.

The disadvantage of adopting this 'on the ground' approach for this study is that permissive provisions (or approved discretionary or non-complying consents) mean the resulting industrial economy would be described too broadly and unduly overlaps the retail and commercial office economy for example. The advantage is that its more closely tied to the local characteristics of industrial land use activities in QLD – recognising the importance of service activity for example. Overall it is considered that (on its own) this is not an appropriate approach to identify the QLD industrial economy. It has a degree of circularity that will not allow the users of this report to consider true industrial land use activities independently of operative zone provisions.

The third potential approach to describing the scope of the industrial economy is based more on a land use and building typology perspective – identifying the activities that occupy the sorts of buildings or sites typically provided for or anticipated in industrial zones from an effects, urban form and amenity outcome[2]. This includes, for example, warehouse type buildings/structures, factories, yards and other special purpose plants/buildings. When approached in this way (and there is a degree of overlap between this approach and the 'on the ground' approach), you generally capture a more diverse range of activities than the industrial sector approach but a smaller range (sub-set) of activities than the 'on the ground' approach (more focussed on the true industrial land use activities rather than all potentially enabled activities). An advantage of this approach is that it is expected to align reasonably closely with the site and zone standards of industrial zones. The disadvantage is that you end up with too many sectors/industries (defined by ANZSIC) for a concise description and analysis.

The implication is that any one approach is not appropriate for this study. Starting with core and commonly identified industrial sectors is the recommended starting point. Activities that are actually on the ground in QLD industrial zones, combined with knowledge of typical industrial land use typologies, can then be used as a filter/cross check. It is important to identify what falls outside and what falls within the identified industrial economy so that the scope of subsequent analysis in this report is clearly understood.

With the above issues in mind, M.E has identified the QLD industrial economy as follows:

1. We coded 2013 meshblocks to (Stage 1 decisions version) district plan zones by location in the study area – being all of QLD and Cromwell Ward in neighbouring COD. Meshblock boundaries are often coarser than zone boundaries. This means that the representation of zones using meshblocks is approximate only and at times captures multiple zones in one meshblock, so some detail is lost. Given the focus on industrial zones, capturing their full

[2] This was the approach taken in the BDCA demand modelling which looked at the relationship between building typologies/land use types and industries (at the 6-digit ANZSIC level) based on national averages and summarised to the 48-sector level. Refer Appendix 8 of the final BDCA. This also includes a step which weighted the 48 sector findings to align with the structure of the QLD economy (relative to the national average).

extent has been given priority but an implication of this approach is that it can include activity that sits within the meshblock but outside the industrial zone. This spatial coding of meshblocks is however common practice and allows for systematic desktop analysis of meshblock level data. The accuracy of the meshblock coding is discussed later in the report with regard to analysis of the four industrial zones of interest. The Council's own ground truthing data of each industrial zones offers greater accuracy of what activities are in the zone areas, so is a useful cross check (albeit that it is based on district plan 'activities' rather than 'ANZSIC industries' used in M.E's analysis, so is not directly comparable).

2. We appended 2017 business (and employment) counts by 6-digit ANZSIC to those meshblocks. This allowed us to summarise 2017 business (and employment) counts by 6-digit ANZSIC to approximate Stage 1 decisions version district plan zones and wards.

3. M.E then selected 6-digit ANZSICs where there was one or more business in either the combined Wanaka Industrial Zone areas, Arrowtown Industrial Zone area, Queenstown Industrial Zone area (Glenda Drive) or Gorge Road Business (Operative) Zone area that fell within the following industry sectors:

    - A - Agriculture, Forestry and Fishing Support Services (but excluding primary production)
    - C - Manufacturing
    - D - Waste Services (but excluding Electricity Supply, Gas Supply, and Water/Sewerage Supply Services)
    - E - Construction
    - F - Wholesale Trade
    - I - Transport, Postal and Warehousing
    - L - Rental and Hiring Services (but excluding Real Estate Services)
    - S - Other Services (but limited to automotive servicing, equipment/appliance repair services and laundry and dry-cleaning services)

4. The above step identified only the more industrial land use businesses present in QLD's industrial (or Business (operative)) zones. It does not pick up all businesses in these zones. The next step was to select 6-digit ANZSICs where there was one or more business (2017) in any other zone of QLD, on the basis that not all 'industrial' businesses locate in the industrial zones. This step was limited to ANZSICs not already selected in the following more typical industrial sectors:

    - C - Manufacturing
    - D - Waste Services (but excluding Electricity Supply, Gas Supply, and Water/Sewerage Supply Services)
    - E - Construction
    - F - Wholesale

- I - Transport, Postal and Warehousing

5. The above two steps cumulatively captured all 6-digit ANZSICs in the Construction sector, but only selected 6-digit ANZSICs in other divisions.

The above approach identifies industrial businesses that are (given sufficient scale[3]) considered likely to seek an industrial zone location, or, alternatively occupy a building or site that one might typically associate with the urban form and amenity of industrial zones (i.e. Yards, warehouses, service depots, factories). These may include ancillary office and retail space.

As the selection of 6-digit ANZSICs is limited to what is actually present in QLD, the result is an industrial economy unique to QLD – as at 2017. This selection may not be representative of QLD's past industrial economy or future industrial economy – both of which are analysed later in this report.

The final selection of 6-digit ANZSICs in QLD's industrial economy has been cross checked with primary data collected by QLDC of business activities present in the 3 developed (fully or partially) zones of interest[4]. That data is more accurate in terms of what's in and not in the actual zone boundaries but does not have an ANZSIC basis for categorising activities, so does not enable a direct comparison. However, M.E has directly compared the nature of businesses[5] categorised as Industrial, Light Industrial, Outdoor Storage, Yard Based Industrial and Yard Based Service Activity with the industries included in the QLD industrial economy definition and they overlap. This data is discussed further in Section 4.4

As a final cross check, M.E has compared the selected industries in the identified industrial economy with M.E's national dataset on the average mix of building / land use typologies by 6-digit ANZSIC[6]. This further confirmed that the identified QLD industrial economy does not miss any industries that have a high estimated share of activity in either Warehouses, Factories, Commercial Yards, Industrial Yards, Other Built Industrial or Outdoor Industrial typologies.

Having confirmed that the adopted approach has identified an appropriate set of businesses to describe QLD's industrial economy, Appendix 1 provides a full list by 6-digit ANZSIC and related summary concordance.

2.2 Key Parameters of the QLD Industrial Economy

Figure 2.1 provides a high-level summary of the composition of the QLD industrial economy – as identified for this report. In total, it comprises just under 1,930 businesses and approximately 6,250 workers[7] (2017). It therefore accounts for 25% of all business in the QLD economy in 2017 (7,710) and 22.5% of all workers (27,800).

[3] The Business Directory data from Statistics NZ is limited to those businesses registered with IRD/ GST. It therefore excludes very small-scale businesses.

[4] The Ballantyne Road Mixed Use Zone is a zone of interest to the review but is currently undeveloped/greenfield.

[5] Based on the business name recorded in the QLDC ground truthing survey and estimating the ANZSIC this might fall within.

[6] This data was used as a key input to the QLDC BDCA 2017.

[7] Employment is measured as the 'Modified Employment Count'. This includes the Employee Count reported by Statistics NZ and M.E estimates of Statistics NZ working proprietors excluded from the Employee Count by each ANZSIC.

Appendix 2 provides a detailed breakdown by 6-Digit ANZSIC. This highlights the diversity of businesses and the count within each 6-digit ANZSIC. Not all of the industrial economy contains much depth/choice between businesses. There are 27 businesses that are the only business in that ANZSIC. A further 38 businesses are one of just two in the same ANZSIC. This does not mean that these businesses are necessarily small, although some are. The two Photographic, Optical and Ophthalmic Equipment Manufacturing businesses, have an average employment count of 13-14 each. The two Metal and Mineral Wholesaling businesses have an average of 9 workers each. Some businesses are unique within the district because they serve a district (or larger) catchment (i.e. the market cannot sustain more than one). Others are unique because they are less common generally (rare).

At the other end of the scale, there are 392 businesses in the House Construction ANZSIC, 78 in the Electrical Services ANZSIC and 76 in the Painting and Decorating Services ANZSIC. We note that individual builders not employed (via wages or salary) by a building company are often registered as sole traders who contract themselves to other builders/building companies. This means that a builder and a building business can be one in the same. The average size of businesses in the House Construction ANZSIC is 3, so half of all businesses have one or two workers. There is approximately one electrician for every 4 house builders and one painter for every 5 house builders.

Overall, business that fall within the Construction 'division' (being the broadest aggregation in the ANZSIC framework) make up 61% of all businesses and 56% of all employment in the QLD industrial economy in 2017. Manufacturing accounts for 12% of businesses and 14% of employment (with an average business size of 4 workers each). The Wholesale Trade division makes up 8% and 9% respectively. Appendix 2 provides the structure at the detailed ANZSIC level.

Figure 2.1 – Summary Structure of QLD Industrial Economy 2017 – Total District

ANZSIC Division	Industrial Economy Selection	Business Count (n)	Share of IE Businesses (%)	Share of All Businesses (%)	Employment Count (n) *	Share of IE Employment (%)	Share of All Employment (%)	Average Business Size (MECs)
A	Selected Ag/Forestry/Fishing Support Services	50	2.6%	0.7%	130	2.1%	0.5%	3
C	Manufacturing	225	11.7%	2.9%	862	13.8%	3.1%	4
D	Waste Services Group Only	15	0.8%	0.2%	103	1.6%	0.4%	7
E	Construction	1,168	60.6%	15.2%	3,465	55.5%	12.5%	3
F	Wholesale Trade	154	8.0%	2.0%	573	9.2%	2.1%	4
I	Selected Transport, Postal and Warehousing	85	4.4%	1.1%	312	5.0%	1.1%	4
L	Selected Rental and Hiring Services	128	6.6%	1.7%	371	5.9%	1.3%	3
S	Selected Other Services	102	5.3%	1.3%	434	6.9%	1.6%	4
QLD Industrial Economy		1,928	100.0%	25.0%	6,249	100.0%	22.5%	3
Rest of QLD Economy (all other ANZSICs)		5,782		75.0%	21,551	344.9%	77.5%	4
Total QLD Economy		7,710		100.0%	27,800		100.0%	4

Source: M.E, Statistics NZ Business Frame 2017

2.3 QLD Industrial Economy Comparison

The identified QLD industrial economy is unique to QLD and so comparisons with the other districts/cities in New Zealand would ideally require the industrial economy of those areas to be identified in a consistent way. That was no practical for the purpose of this study. However, we have compared the identified QLD industrial economy with the equivalent industries in other locations to see how this selection of businesses compares as a share of total economic activity, and also the relative mix of activities within those selected industries.

To compare QLD's industrial economy we have selected the two districts with a usually resident population (2017) slightly smaller than QLD (when ranked in order). These are Whakatane District and Taupo District. And the two districts with a slightly larger population (Upper Hutt City and Whanganui District). We have also considered Dunedin – being a large city near to Queenstown; Auckland City (as our largest metropolitan city); total Otago Region; and total New Zealand.

Figure 2.2 shows that the selected businesses that make up QLD's industrial economy account for 25% of total businesses. This is not dissimilar to New Zealand overall, Taupo District, and Auckland. In Upper Hutt, those selected businesses play a greater role in the local economy (31% of all businesses) and in Whakatane District, they play a lower role relative to the rest of the economy. Employment-wise, QLD's share of workers in the selected businesses is much smaller than all of the comparators. Nationally, those businesses account for 29% of total employment. This is due to the small average size of industrial businesses in QLD compared with elsewhere (3 per business compared to 5 per business for total New Zealand).

Figure 2.2 – Comparison of QLD Industrial Economy Industries Share of Total Economy 2017

Activity as Share of Total Economy	Queenstown-Lakes District	Taupo District	Upper Hutt City	Whanganui District	Whakatane District	Dunedin City	Auckland Region	Otago Region	New Zealand
Businesses within QLD Industrial Economy	25.0%	25.8%	30.6%	23.7%	20.3%	22.9%	25.8%	22.8%	24.4%
Employment within QLD Industrial Economy	22.4%	24.9%	26.1%	31.5%	24.6%	23.2%	29.9%	25.5%	29.0%
Businesses in Manufacturing Sector	2.9%	4.1%	4.7%	4.9%	3.3%	4.0%	4.2%	3.4%	4.0%
Employment in Manufacturing Sector	3.1%	6.8%	7.7%	14.2%	7.3%	6.4%	9.4%	7.6%	9.7%

Source: M.E, Statistics NZ Business Frame 2017.

Figure 2.3 provides the same comparison of business counts falling within QLD's identified industrial economy but summarised by ANZSIC division. Appendix 3 provides the associated summary table. It shows that relative to the comparator areas, Construction accounts for a relatively higher share of total selected businesses , second only to Upper Hutt. Waste Services accounts for a similar share of businesses in all locations. Wholesale Trade in QLD also plays a lower relative role. This is consistent with the long distance of QLD from sea or air freight ports (in terms of wholesaling imported products) or proximity to a primary production hub. Combined with the lower relative role for Transport and Warehousing, it shows that QLD is not well located to be a logistics (distribution) hub.

The divisions where QLD plays a relatively stronger role in the selected businesses is Rental and Hiring Services (in an industrial or industrial service role). This activity includes 64 Other Goods and Equipment Rental and Hiring Not Elsewhere Classified businesses[8], 39 Passenger Car Rental and Hiring businesses and 21 Other Motor Vehicle and Transport Equipment Rental and Hiring businesses. The majority of these businesses are sustained by Queenstown's significant tourism role.

[8] Examples of primary activities includes art work rental, bike rental, camping equipment rental, costume hire, appliance rental, furniture rental, pot plant rental, suit hire and office machinery rental.

Figure 2.3 – Comparison of Share of Businesses (2017) within Identified QLD Industrial Economy

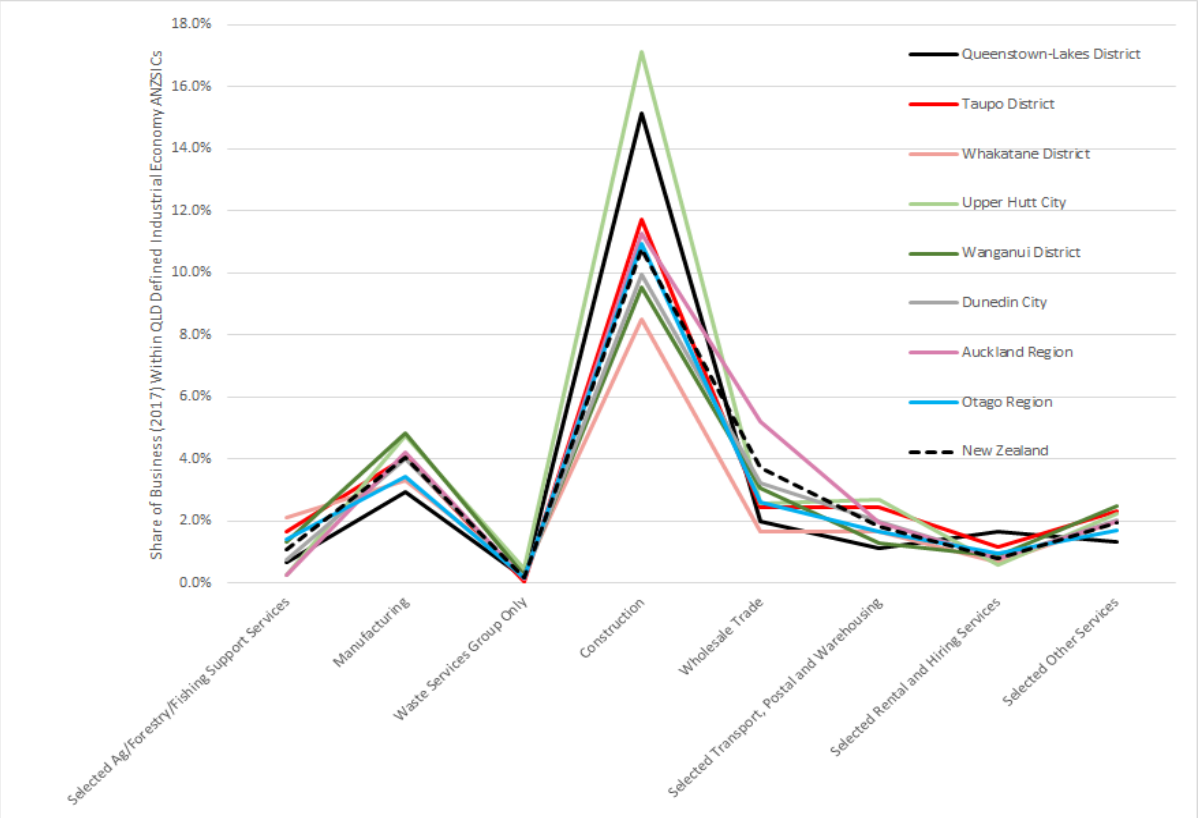


Figure 2.4 – Comparison of Share of Employment (2017) within Identified QLD Industrial Economy

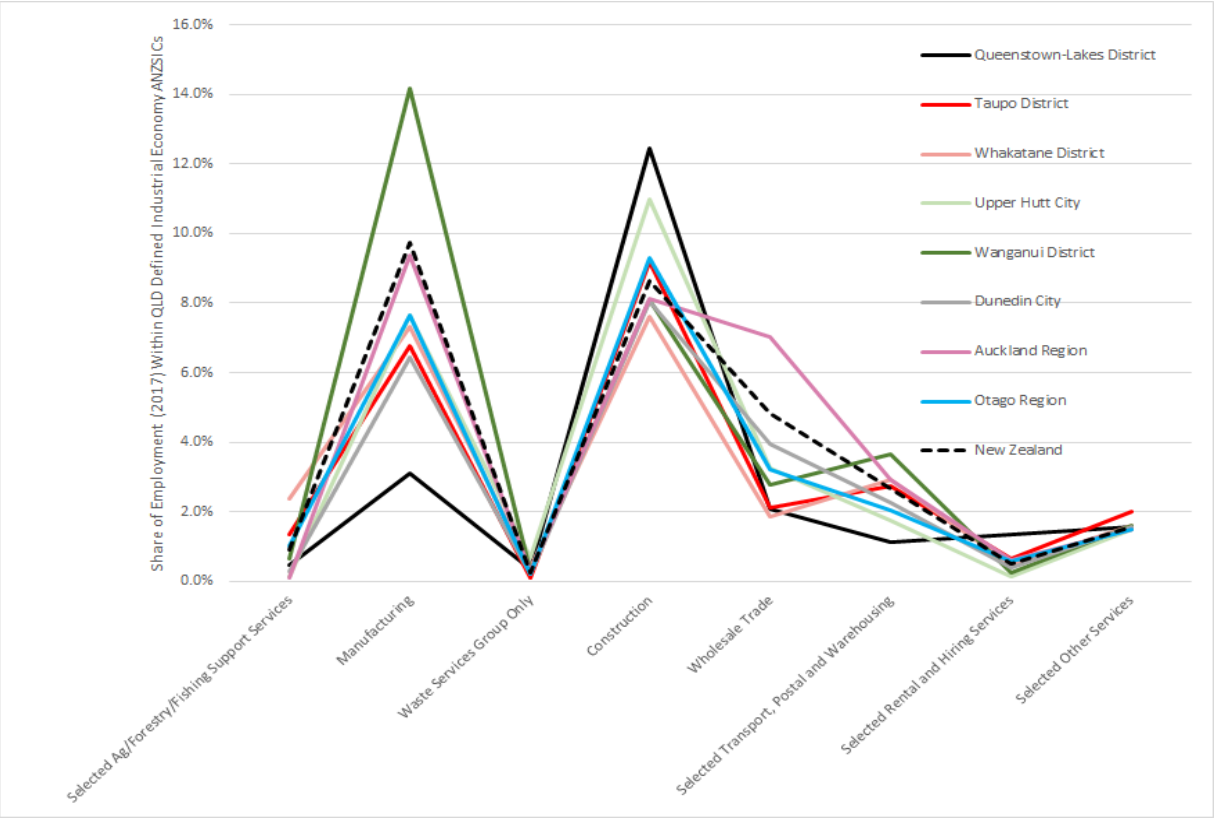


Figure 2.4 compares employment in the selected businesses by location. This further highlights the small scale of QLD's Manufacturing base in employment terms (as well as business terms) and the significant role of Construction within the QLD industrial economy compared to elsewhere (see also Appendix 3).

To provide another useful perspective to the comparison, we have looked at the total count of businesses in the Manufacturing division. This approach does not limit the business and employment count just to Manufacturing businesses that are found in QLD but captures each area's Manufacturing sector. Further detail is provided in Appendix 4.

Figure 2.2 (above) shows Manufacturing accounts for 2.9% of total businesses in QLD. This is low compared to the comparators, which range from a 3.3% share in Whakatane District and a 4.9% share in Whanganui. The share of employment in QLD's Manufacturing sector is 3.1% of total employment (2017). This is even lower relative to the comparators which range from 6.4% in Dunedin City to 14.2% in Whanganui District. This highlights that QLD does not have a strong manufacturing base and what businesses it does have in that division, tends to be smaller in scale that those found elsewhere.

Figure 2.5 – Comparison of Share of Businesses (2017) within Manufacturing Sector

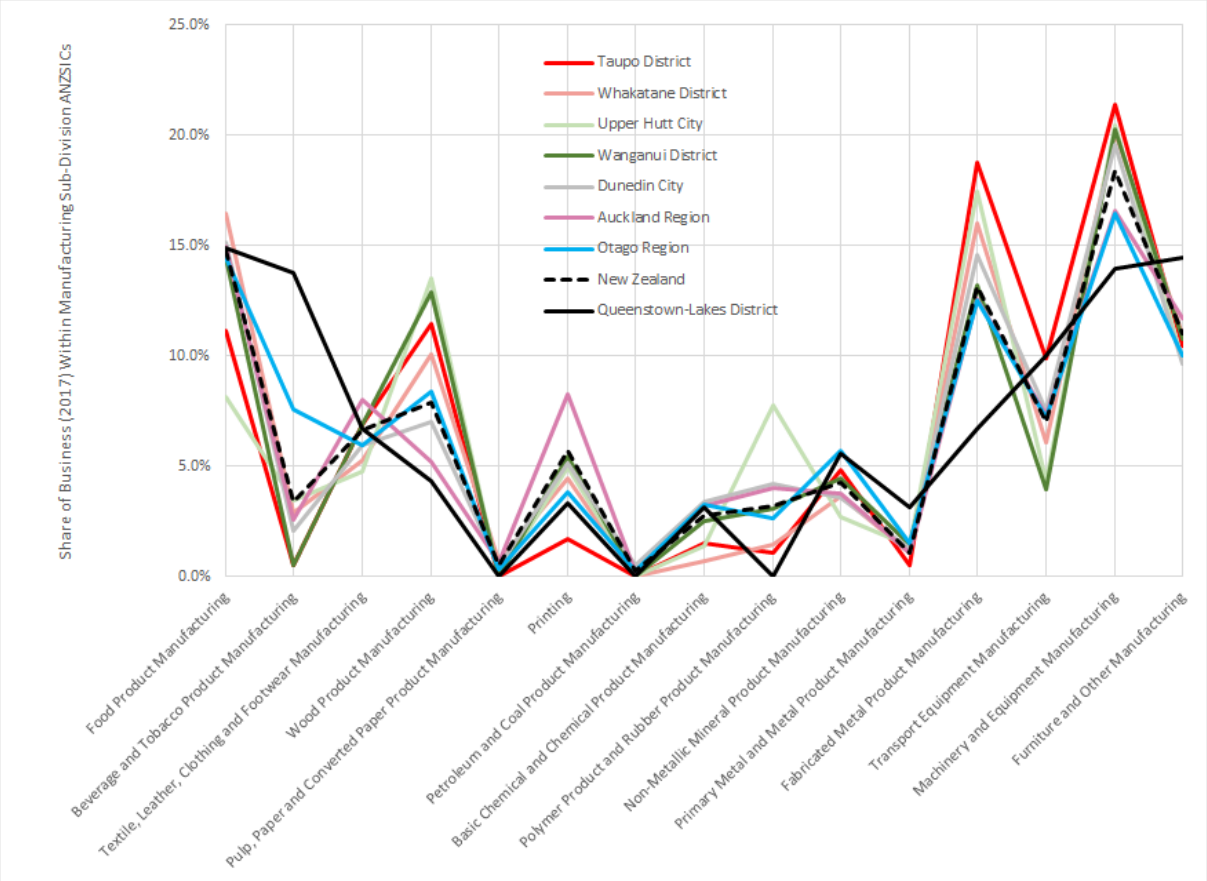
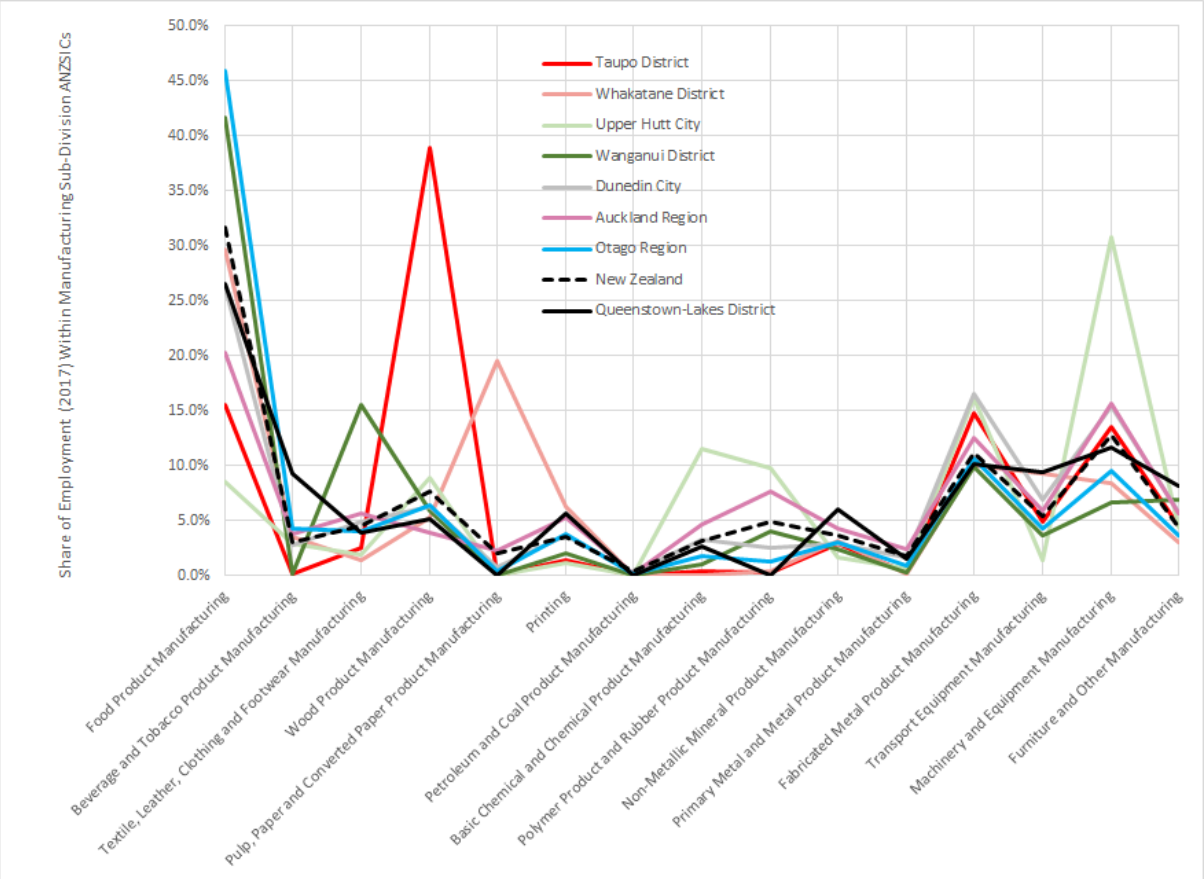


Figure 2.5 and Appendix 4 provide a breakdown of Manufacturing by ANZSIC Sub-Division. QLD's Manufacturing sector is not what is typically found in New Zealand. Relative to the comparators, QLD has a higher share of Beverage Product Manufacturing businesses, Non-Metallic Mineral Product

Manufacturing[9], Transport Equipment Manufacturing and Furniture and Other Manufacturing businesses. In several Sub-Divisions, the mix of manufacturing businesses is similar to the national average. But QLD has a particularly small relative role in Wood Product Manufacturing, Printing, Polymer/Rubber Product Manufacturing, Fabricated Metal Product Manufacturing, and Machinery and Equipment Manufacturing – all heavy or factory-based Manufacturing activities. Figure 2.6 (and Appendix 4) further highlight the specialisation of other comparator areas and the more unique employment profile of QLD's Manufacturing sector.

Figure 2.6 – Comparison of Share of Employment (2017) within Manufacturing Sector



The same analysis of comparable Manufacturing employment is analysed using location quotients in Figure 2.7. The coloration is relative within each area to highlight those Manufacturing Sub-Divisions where employment is concentrated (or not[10]) relative to the national average. QLD has a higher concentration of Beverage Manufacturing employment, Furniture and Other Manufacturing, Transport Equipment

[9] Examples of businesses include other ceramic product manufacturing, ready mixed concrete manufacturing, concrete product manufacturing, and other non-metallic mineral product manufacturing (for which primary activities include abrasives manufacturing, brick/silica lime manufacturing, imitation brick or stone manufacturing, chalk product manufacturing, insulation/glass fibre/mineral wool manufacturing, ground mineral earths manufacturing, processed lightweight aggregate manufacturing, slag crushing, stone product manufacturing).

[10] Values greater than 1 show a relative concentration relative to the average (in this case total New Zealand). Values less than 1 show an under-representation and values close to one show a similar relative share as the average.

Manufacturing, Printing and Non-Metallic Mineral Product Manufacturing. These are the Manufacturing Sub-Divisions that QLD specialises in.

Figure 2.7 - Share of Employment (2017) within Manufacturing Sector – Location Quotient

Manufacturing Sub-Division	Queenstown-Lakes District	Taupo District	Upper Hutt City	Wanganui District	Whakatane District	Dunedin City	Auckland Region	Otago Region	New Zealand
Food Product Manufacturing	0.8	0.5	0.3	1.3	0.9	0.8	0.6	1.5	1.0
Beverage and Tobacco Product Manufacturing	3.1	0.0	1.0	0.0	1.1	0.9	1.2	1.4	1.0
Textile, Leather, Clothing and Footwear Manufacturing	0.9	0.6	0.4	3.5	0.3	1.1	1.3	0.9	1.0
Wood Product Manufacturing	0.7	5.1	1.2	0.8	0.7	0.8	0.5	0.8	1.0
Pulp, Paper and Converted Paper Product Manufacturing	-	-	-	-	9.7	0.4	1.1	0.2	1.0
Printing	1.6	0.4	0.3	0.6	1.8	1.0	1.5	1.1	1.0
Petroleum and Coal Product Manufacturing	-	-	-	-	-	0.7	0.3	0.3	1.0
Basic Chemical and Chemical Product Manufacturing	0.8	0.1	3.7	0.3	0.0	1.0	1.5	0.6	1.0
Polymer Product and Rubber Product Manufacturing	-	0.0	2.0	0.8	0.1	0.5	1.6	0.3	1.0
Non-Metallic Mineral Product Manufacturing	1.6	0.8	0.5	0.7	0.8	0.8	1.2	0.8	1.0
Primary Metal and Metal Product Manufacturing	0.8	0.1	0.4	0.2	0.1	0.9	1.3	0.5	1.0
Fabricated Metal Product Manufacturing	0.9	1.3	1.5	0.9	0.9	1.5	1.1	1.0	1.0
Transport Equipment Manufacturing	1.7	0.9	0.3	0.7	1.7	1.3	1.1	0.8	1.0
Machinery and Equipment Manufacturing	0.9	1.1	2.4	0.5	0.7	1.2	1.2	0.7	1.0
Furniture and Other Manufacturing	1.9	1.0	1.0	1.6	0.7	1.3	1.3	0.8	1.0
Total Manufacturing Sector	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Source: M.E, Statistics NZ Business Frame 2017. *Colour scale applied within each area and not across all areas.*

2.4 QLD Industrial Economy by Ward

This section looks at the distribution of QLD's industrial economy across the wards of the District – being Wanaka, Queenstown-Wakatipu (Queenstown) and Arrowtown. A key point of interest for this research was the role or relationship QLD has with the industrial economy in Cromwell in neighbouring COD – given that it is closer to either Queenstown or Wanaka, than Queenstown and Wanaka are to each other[11]. We have therefore included the Cromwell Ward in our wider study area. Figure 2.8 also shows other geographic areas commonly referred to in this report.

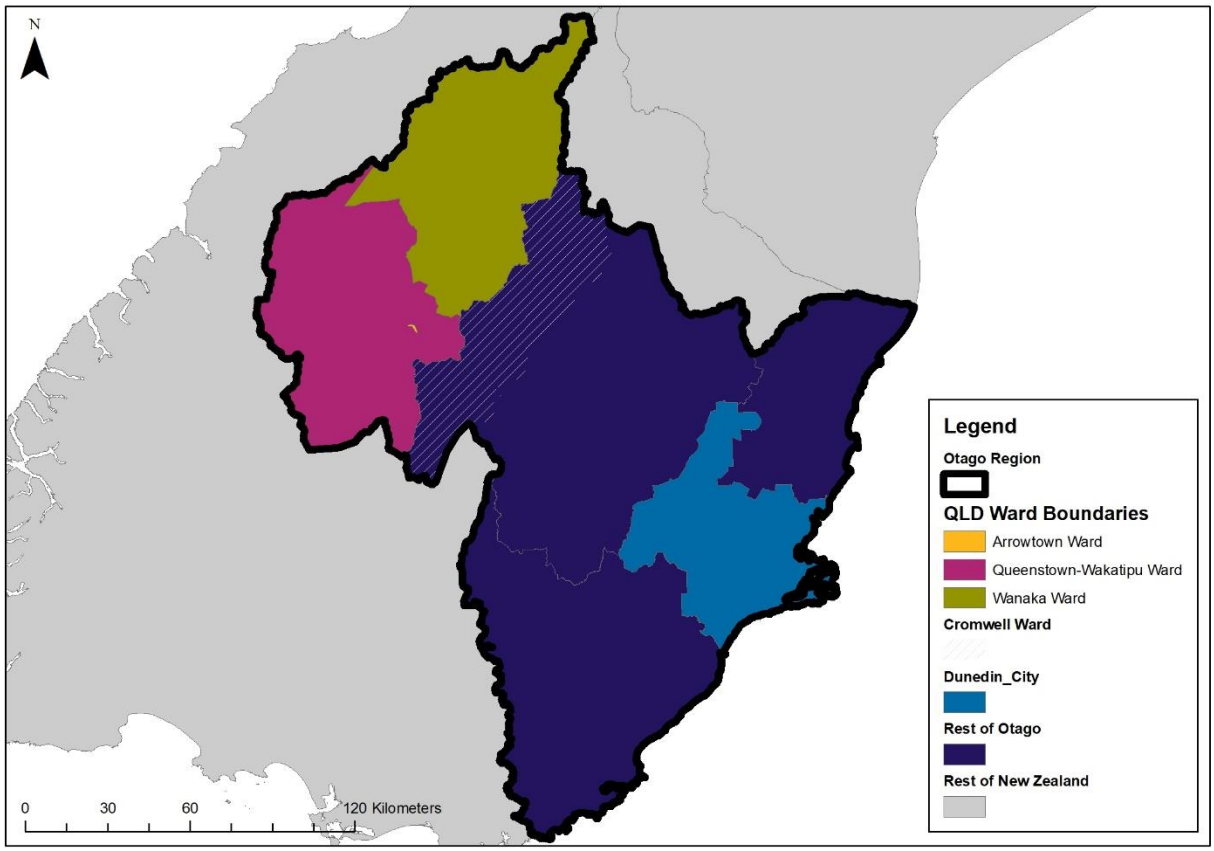
Figure 2.9 summarises the count of businesses in the QLD industrial economy that are located in each ward. Further detail of business counts by 6-Digit ANZSIC is also included later in this section. In total, the small Arrowtown Ward contains 133 businesses (2017) that fall within QLD's industrial economy. This is nearly 7% of the total industrial economy businesses in QLD (6% of the study area total). Within that ward, the industrial economy accounts for an above average share of all businesses (nearly 29%). This is due to the limited other business enabled zones in the ward, with the Town Centre zone being the main commercial centre. The Construction Division dominates the industrial economy in Arrowtown Ward (94 businesses or approximately 20% of total ward businesses). Manufacturing includes 13 businesses (nearly 3% of total ward businesses).

The Queenstown Ward contains nearly 1,060 businesses (2017) that fall within QLD's industrial economy. This is a significant 55% share of the total QLD industrial economy businesses (45% of the study area total). Within the Queenstown ward, the industrial economy accounts for a below average share of all businesses (just over 22%). The Construction Division dominates the industrial economy in Queenstown Ward (619 businesses or approximately 13% of total ward businesses). 53% of all Construction businesses in QLD are

[11] Approximately 54km between Wanaka and Cromwell, 60km between Queenstown and Cromwell and 67km between Wanaka and Queenstown.

located in Queenstown ward. Manufacturing includes 124 businesses (Just under 3% of total ward businesses).

Figure 2.8 – Map of Ward Boundaries in Study Area and Other Relevant Catchments



The Wanaka Ward contains nearly 740 businesses (2017) that fall within QLD's industrial economy. This is a 34% share of the total QLD industrial economy businesses (31% of the study area total). Within the Wanaka ward, the industrial economy accounts for an above average share of all businesses (nearly 30%), so has a more significant local role than in Queenstown. The Construction Division dominates the industrial economy in Wanaka Ward (455 businesses or approximately 18% of total ward businesses). 39% of all Construction businesses in QLD are located in the Wanaka ward. Manufacturing includes 88 businesses (just under 4% of total ward businesses).

The Cromwell Ward contains just over 430 businesses (2017) that fall within QLD's industrial economy description[12]. This is an 18% share of the total industrial economy businesses in the wider QLD-Cromwell study area. This shows that while anecdotally Cromwell is known for its industrial hub, from a business count perspective (across the industries included in QLD's industrial economy description) it is about 58% of the size of Wanaka's industrial economy and 40% of the size of Queenstown ward's industrial economy.

Within the Cromwell ward, the industrial economy accounts for an above average share of all businesses (nearly 34% compared to an average of 25% for total QLD). The Construction Division dominates the

[12] Refer earlier comment about comparability of QLD's industrial economy with areas outside the district. This analysis does not necessarily represent Cromwell's or COD's industrial economy if approached in the same way.

industrial economy in Cromwell Ward (204 businesses or approximately 16% of total ward businesses). 15% of all Construction businesses in the study area are located in the Cromwell ward. Manufacturing includes 77 businesses (just under 6% of total ward businesses).

Figure 2.9 – Summary of Industrial Economy and Other Business by Ward 2017

ANZSIC Division	Industrial Economy Selection	Arrowtown	Queenstown	Wanaka	Total QLD	Cromwell	Total Study Area
A	Selected Ag/Forestry/Fishing Support Services	5	21	24	50	25	76
C	Manufacturing	13	124	88	225	77	302
D	Waste Services Group Only	-	9	6	15	1	16
E	Construction	94	619	455	1,168	204	1,372
F	Wholesale Trade	3	83	68	154	56	211
I	Selected Transport, Postal and Warehousing	4	56	25	85	33	117
L	Selected Rental and Hiring Services	6	86	36	128	12	140
S	Selected Other Services	9	60	34	102	23	125
QLD Industrial Economy		133	1,059	736	1,928	431	2,359
Rest of QLD Economy (all other ANZSICs)		328	3,716	1,738	5,782	842	6,624
Total QLD Economy		462	4,775	2,474	7,710	1,272	8,982
Division Share of Each Ward							
A	Selected Ag/Forestry/Fishing Support Services	1.1%	0.4%	1.0%	0.7%	2.0%	0.8%
C	Manufacturing	2.9%	2.6%	3.6%	2.9%	6.0%	3.4%
D	Waste Services Group Only	0.0%	0.2%	0.2%	0.2%	0.1%	0.2%
E	Construction	20.4%	13.0%	18.4%	15.2%	16.0%	15.3%
F	Wholesale Trade	0.6%	1.7%	2.8%	2.0%	4.4%	2.3%
I	Selected Transport, Postal and Warehousing	0.8%	1.2%	1.0%	1.1%	2.6%	1.3%
L	Selected Rental and Hiring Services	1.3%	1.8%	1.4%	1.7%	0.9%	1.6%
S	Selected Other Services	1.9%	1.3%	1.4%	1.3%	1.8%	1.4%
QLD Industrial Economy		28.9%	22.2%	29.8%	25.0%	33.8%	26.3%
Rest of QLD Economy (all other ANZSICs)		71.1%	77.8%	70.2%	75.0%	66.2%	73.7%
Total QLD Economy		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ward Share of Each Division							
A	Selected Ag/Forestry/Fishing Support Services	9.8%	42.6%	47.6%	100.0%		
C	Manufacturing	5.9%	54.9%	39.2%	100.0%		
D	Waste Services Group Only	0.0%	58.5%	41.5%	100.0%		
E	Construction	8.0%	53.0%	39.0%	100.0%		
F	Wholesale Trade	1.7%	54.1%	44.2%	100.0%		
I	Selected Transport, Postal and Warehousing	4.1%	66.3%	29.6%	100.0%		
L	Selected Rental and Hiring Services	4.7%	67.4%	27.9%	100.0%		
S	Selected Other Services	8.6%	58.5%	32.9%	100.0%		
QLD Industrial Economy		6.9%	54.9%	38.2%	100.0%		
Rest of QLD Economy (all other ANZSICs)		5.7%	64.3%	30.0%	100.0%		
Total QLD Economy		6.0%	61.9%	32.1%	100.0%		

Source: M.E, Statistics NZ Business Frame 2017

Figure 2.10 compares industrial economy employment by ward across the study area. It includes average business size by Division. Compared to the business count summary, the key features are:

- The same two Divisions dominate – Construction followed by Manufacturing. However, in the Cromwell ward, employment in Selected Agricultural Support Services is a close second to Manufacturing, indicating these are large employers.
- The share of total ward employment that falls within the industrial economy is greater relative the business count share in both Arrowtown and Cromwell, again indicating a mix of larger businesses relative to the rest of the economy. In Arrowtown, industrial economy employment

makes up 31.5% of total ward employment (2017) and in Cromwell it is a significant 39.7%. This is an average business size of 3.1 and 5.4 respectively.

Figure 2.10 – Summary of Industrial Economy and Other Employment by Ward

ANZSIC Division	Industrial Economy Selection	Arrowtown	Queenstown	Wanaka	Total QLD	Cromwell	Total Study Area
A	Selected Ag/Forestry/Fishing Support Services	16	63	51	130	454	584
C	Manufacturing	41	549	272	862	469	1,331
D	Waste Services Group Only	-	35	68	103	6	109
E	Construction	284	2,121	1,060	3,465	726	4,191
F	Wholesale Trade	18	375	181	573	390	963
I	Selected Transport, Postal and Warehousing	4	244	64	312	202	514
L	Selected Rental and Hiring Services	25	294	51	371	22	393
S	Selected Other Services	29	280	126	434	64	498
QLD Industrial Economy		416	3,959	1,873	6,249	2,334	8,582
Rest of QLD Economy (all other ANZSICs)		906	15,409	5,237	21,551	3,548	25,099
Total QLD Economy		1,322	19,368	7,110	27,800	5,882	33,682
Division Share of Each Ward							
A	Selected Ag/Forestry/Fishing Support Services	1.2%	0.3%	0.7%	0.5%	7.7%	1.7%
C	Manufacturing	3.1%	2.8%	3.8%	3.1%	8.0%	4.0%
D	Waste Services Group Only	0.0%	0.2%	1.0%	0.4%	0.1%	0.3%
E	Construction	21.5%	11.0%	14.9%	12.5%	12.3%	12.4%
F	Wholesale Trade	1.3%	1.9%	2.5%	2.1%	6.6%	2.9%
I	Selected Transport, Postal and Warehousing	0.3%	1.3%	0.9%	1.1%	3.4%	1.5%
L	Selected Rental and Hiring Services	1.9%	1.5%	0.7%	1.3%	0.4%	1.2%
S	Selected Other Services	2.2%	1.4%	1.8%	1.6%	1.1%	1.5%
QLD Industrial Economy		31.5%	20.4%	26.3%	22.5%	39.7%	25.5%
Rest of QLD Economy (all other ANZSICs)		68.5%	79.6%	73.7%	77.5%	60.3%	74.5%
Total QLD Economy		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Ward Share of Each Division							
A	Selected Ag/Forestry/Fishing Support Services	12.4%	48.5%	39.0%	100.0%		
C	Manufacturing	4.8%	63.7%	31.6%	100.0%		
D	Waste Services Group Only	0.0%	33.9%	66.1%	100.0%		
E	Construction	8.2%	61.2%	30.6%	100.0%		
F	Wholesale Trade	3.1%	65.3%	31.6%	100.0%		
I	Selected Transport, Postal and Warehousing	1.2%	78.2%	20.5%	100.0%		
L	Selected Rental and Hiring Services	6.8%	79.4%	13.9%	100.0%		
S	Selected Other Services	6.6%	64.4%	29.0%	100.0%		
QLD Industrial Economy		6.7%	63.4%	30.0%	100.0%		
Rest of QLD Economy (all other ANZSICs)		4.2%	71.5%	24.3%	100.0%		
Total QLD Economy		4.8%	69.7%	25.6%	100.0%		
Ward Average Business Size (MECs)							
A	Selected Ag/Forestry/Fishing Support Services	3.3	2.9	2.1	2.6	17.9	7.7
C	Manufacturing	3.1	4.4	3.1	3.8	6.1	4.4
D	Waste Services Group Only	-	4.0	11.1	7.0	4.9	6.8
E	Construction	3.0	3.4	2.3	3.0	3.6	3.1
F	Wholesale Trade	6.6	4.5	2.7	3.7	6.9	4.6
I	Selected Transport, Postal and Warehousing	1.1	4.3	2.5	3.7	6.2	4.4
L	Selected Rental and Hiring Services	4.2	3.4	1.4	2.9	1.9	2.8
S	Selected Other Services	3.3	4.7	3.7	4.2	2.8	4.0
QLD Industrial Economy		3.1	3.7	2.5	3.2	5.4	3.6
Rest of QLD Economy (all other ANZSICs)		2.8	4.1	3.0	3.7	4.2	3.8
Total QLD Economy		2.9	4.1	2.9	3.6	4.6	3.7

Source: M.E, Statistics NZ Business Frame 2017

- In contrast, in Wanaka and Queenstown wards, the employment share in the industrial economy is less than the business share due to a large number of small businesses relative to other sectors.

For example, in Queenstown, the average size of industrial economy businesses is 3.7 compared to an average of 4.1 in the rest of the economy.

- A significant 61% of Construction employment in QLD is located in Queenstown ward (compared to 53% of Construction businesses). The average size is 3.4 workers compared to 2.3 in Wanaka.
- Nearly 64% of Manufacturing employment in QLD is located in the Queenstown ward (compared to nearly 55% of Manufacturing businesses. The average size is 4.4 workers compared to 3.1 in Wanaka.
- However, the average size of Manufacturing businesses in Cromwell ward is bigger again at 6.1. Similarly, the average size of construction firms is also larger than in Queenstown – 3.6 compared to 3.4.

2.5 Ward Specialisation vs Duplication

We have calculated location quotients based on employment in the industrial economy to help identify specialisation within each of the wards of QLD. Figure 2.11 shows that relative to the district overall, Selected Agricultural Support Services plays a greater role in Arrowtown and a moderate role in Wanaka, but is underrepresented in Queenstown Ward. In Arrowtown, the industrial economy is also more focussed on Construction, Rental and Hiring Services and Selected Other Services that elsewhere in the district. Wholesale Trade and Transport and Warehousing is not a focus for Arrowtown but is a focus for Queenstown. In the Wanaka ward, the industrial economy employment is more focussed on Waste Services (with Waste Busters likely to be the key player her), Construction and Manufacturing. Rental and Hiring Services is not a focus (relative to Queenstown), but this would be expected to change if commercial flights were to start at Wanaka Airport – so a change in structure of the industrial economy would be expected under that outcome.

Figure 2.11 QLD Location Quotients (Employment Based 2017) – Specialisation by Ward

ANZSIC Division	Industrial Economy Selection	Arrowtown	Queenstown	Wanaka	Total QLD
A	Selected Ag/Forestry/Fishing Support Services	2.6	0.7	1.5	1.0
C	Manufacturing	1.0	0.9	1.2	1.0
D	Waste Services Group Only	-	0.5	2.6	1.0
E	Construction	1.7	0.9	1.2	1.0
F	Wholesale Trade	0.6	0.9	1.2	1.0
I	Selected Transport, Postal and Warehousing	0.3	1.1	0.8	1.0
L	Selected Rental and Hiring Services	1.4	1.1	0.5	1.0
S	Selected Other Services	1.4	0.9	1.1	1.0
QLD Industrial Economy		1.4	0.9	1.2	1.0
Rest of QLD Economy (all other ANZSICs)		0.9	1.0	1.0	1.0
Total QLD Economy		1.0	1.0	1.0	1.0

Source: M.E, Statistics NZ Business Frame 2017.

Figure 2.12 includes Cromwell in the employment location quotient to examine relative specialisation across the study area. When viewed this way, we see that Cromwell is much more focussed on Agricultural

Support Services, Manufacturing, Wholesale Trade and Selected Transport, Postal and Warehousing compared to any of the areas within QLD (or QLD overall).

This indicates that Cromwell is a more attractive location for businesses in these Divisions. This is logical given the strategic location of Cromwell to both Wanaka and Queenstown (i.e. it is a central hub) and the benefit of this for Transport, Postal/Courier, Manufacturing, Warehousing and Wholesaling (which have a big focus on freight movements and distribution). Cromwell is also closer to Dunedin and the route to Christchurch. The specialisation in Agricultural Services is logically linked to the horticultural activities in Cromwell. These locational attributes mean that Queenstown and Wanaka are not likely to compete with Cromwell for larger businesses in these key sectors but may still support some smaller scale operations that have a more local operating focus.

Figure 2.12 – Study Area Location Quotients (Employment Based 2017) – Specialisation by Ward

ANZSIC Division	Industrial Economy Selection	Arrowtown	Queenstown	Wanaka	Total QLD	Cromwell *	Total Study Area
A	Selected Ag/Forestry/Fishing Support Services	0.7	0.2	0.4	0.3	4.5	1.0
C	Manufacturing	0.8	0.7	1.0	0.8	2.0	1.0
D	Waste Services Group Only	-	0.6	2.9	1.1	0.3	1.0
E	Construction	1.7	0.9	1.2	1.0	1.0	1.0
F	Wholesale Trade	0.5	0.7	0.9	0.7	2.3	1.0
I	Selected Transport, Postal and Warehousing	0.2	0.8	0.6	0.7	2.3	1.0
L	Selected Rental and Hiring Services	1.6	1.3	0.6	1.1	0.3	1.0
S	Selected Other Services	1.5	1.0	1.2	1.1	0.7	1.0
QLD Industrial Economy		1.2	0.8	1.0	0.9	1.6	1.0
Rest of QLD Economy (all other ANZSICs)		0.9	1.1	1.0	1.0	0.8	1.0
Total QLD Economy		1.0	1.0	1.0	1.0	1.0	1.0

*Source: M.E, Statistics NZ Business Frame 2017. * Assesses Cromwell in the context of QLD's defined industrial economy. This does not fully represent Cromwell Ward's own industrial economy, or that of COD.*

Taking a more detailed look at the comparative mix of activities in the industrial economy of each ward in the study area, the following table highlights not only the degree of overlap or duplication between ward businesses (by 6-Digit ANZSIC) but also the uniqueness of each Ward in terms of supply. This is another way of identifying specialisation of wards within the study area's industrial economy. It also contributes to an understanding on how dependent or independent each ward is of the others. This is relevant to the question on how much Queenstown's industrial economy "serves" Wanaka, and vice versa, and how much Cromwell "serves" QLD.

Key findings from Figure 2.13:

a) There are just three ANZSICs in which Arrowtown Ward has the only businesses in QLD (i.e. those businesses are unique to Arrowtown). These include Milk and Cream Processing, Other Ceramic Product Manufacturing and Steel Pipe and Tube Manufacturing. All other industrial economy businesses are replicated in either Wanaka Ward, Queenstown Ward, or both (notwithstanding unique offerings of those businesses within each ANZSIC classification).

b) There are 18 ANZSICs in which Wanaka Ward has the only businesses in QLD (i.e. those businesses are unique to Wanaka). In one of those ANZSICs (Pharmaceutical and Toiletry

Goods Wholesaling) there are 4 businesses[13]. In three of these ANZSICs there are two Wanaka businesses each. These include Human Pharmaceutical and Medicinal Product Manufacturing (very similar to Pharmaceutical and Toiletry Goods Wholesaling, potentially bringing that type of industry to 6 in total and suggesting that Wanaka attracts these types of businesses), Ice Cream Manufacturing and Book and Magazine Wholesaling. The remaining 14 unique ANZSICs contain one business each. All other industrial economy businesses are replicated in either Arrowtown Ward, Queenstown Ward, or both (notwithstanding unique offerings of those businesses within each ANZSIC classification).

c) There are 20 ANZSICs in which Queenstown Ward has the only businesses in QLD (i.e. those businesses are unique to Queenstown). In three of those ANZSICs (Clothing Manufacturing, Printing and Fire and Security Alarm Installation Services) there are between 5 and 7 businesses each – suggesting that Queenstown attracts (or sustains) these types of businesses. In three of these ANZSICs there are between 3 and 4 businesses each. These include Interurban and Rural Bus Transport[14], Timber Wholesaling and Computer and Computer Peripherals Wholesaling. In four of the unique ANZSICs in Queenstown Ward, there are 2 businesses each. The remaining 10 unique ANZSICs contain one business each. All other industrial economy businesses are replicated in either Arrowtown Ward, Wanaka Ward, or both (notwithstanding unique offerings of those businesses within each ANZSIC classification).

d) Relative to the total QLD industrial economy, Cromwell Ward has a total of 16 unique manufacturing businesses, spread across 13 different manufacturing ANZISCs – several of which may be considered more heavy industrial activities (i.e. Tyre Manufacturing, Prefabricated Metal Building Manufacturing, Metal Furniture Manufacturing, Leather Tanning and Fur Processing and Log Sawmilling). Cromwell Ward also contains two unique wholesaling ANZSICs (Wool Wholesaling and Plumbing Goods Wholesaling) that are not present in QLD according to Statistics NZ. All other industrial economy businesses are replicated in QLD (notwithstanding unique offerings of those businesses within each ANZSIC classification).

e) QLD has a large number of ANZSICs that are not present in Cromwell Ward. Several of which reflect the important tourism role that QLD has (and linked to the regional airport also in Queenstown). In some respects, Cromwell can be considered a satellite tourism destination relative to the Queenstown hub. Due to this, several industries supporting the tourism sector are likely to service demand in Cromwell from Queenstown. This may include, for example, Laundry and Dry Cleaning Services (10 in total in QLD and none in Cromwell Ward) and Interurban and Rural Bus Transport (4 in QLD). Care is needed as we have not considered the total COD and Alexandra is slightly larger than Cromwell. The proximity of Alexandra to Cromwell will influence what industrial land use activities are present in Cromwell, just as the proximity of both Wanaka and Queenstown will influence the mix of activities that can be sustained.

[13] This will include businesses that wholesale cosmetics, medicine, perfume, toiletries, and veterinary medicines.

[14] This is consistent with Queenstown having the only public bus transport within the district. Wanaka does not yet sustain public transport.

Figure 2.13 – Count of Businesses (2017) in QLD's Industrial Economy by Study Area Ward

Industry	ANZSIC06	Division	Arrowtown	Queenstown	Wanaka	Total QLD	Cromwell	Total Study Area
Industrial - House Construction	E301100	E	37	194	161	**392**	55	**447**
Industrial - Electrical Services	E323200	E	6	37	34	**78**	14	**92**
Industrial - Painting and Decorating Services	E324400	E	4	44	28	**76**	11	**87**
Industrial - Other Residential Building Construction	E301900	E	4	40	24	**68**	21	**89**
Industrial - Other Goods and Equipment Rental and Hiring n.e.c.	L663900	L	4	42	18	**64**	3	**67**
Industrial - Land Development and Subdivision	E321100	E	-	34	27	**61**	5	**65**
Industrial - Plastering and Ceiling Services	E324100	E	4	30	19	**54**	8	**61**
Industrial - Other Automotive Repair and Maintenance	S941900	S	5	31	16	**52**	8	**60**
Industrial - Other Agriculture and Fishing Support Services	A052900	A	5	21	24	**50**	25	**76**
Industrial - Plumbing Services	E323100	E	7	21	22	**50**	16	**66**
Industrial - Landscape Construction Services	E329100	E	1	25	21	**47**	16	**63**
Industrial - Tiling and Carpeting Services	E324300	E	3	26	17	**46**	4	**50**
Industrial - Site Preparation Services	E321200	E	5	24	17	**46**	6	**52**
Industrial - Bricklaying Services	E322200	E	6	20	14	**40**	6	**46**
Industrial - Passenger Car Rental and Hiring	L661100	L	2	27	10	**39**	-	**39**
Industrial - Carpentry Services	E324200	E	2	25	8	**35**	3	**38**
Industrial - Other Construction Services n.e.c.	E329900	E	1	14	19	**33**	7	**41**
Industrial - Road Freight Transport	I461000	I	-	19	11	**30**	18	**48**
Industrial - Other Heavy and Civil Engineering Construction	E310900	E	4	15	7	**26**	8	**34**
Industrial - Non-Residential Building Construction	E302000	E	2	17	6	**25**	4	**29**
Industrial - Courier Pick-up and Delivery Services	I510200	I	-	18	4	**22**	14	**35**
Industrial - Other Motor Vehicle and Transport Equipment Rental and Hiring	L661900	L	-	15	5	**21**	7	**27**
Industrial - Wine and Other Alcoholic Beverage Manufacturing	C121400	C	-	13	7	**20**	19	**40**
Industrial - Wooden Furniture and Upholstered Seat Manufacturing	C251100	C	-	11	8	**20**	4	**24**
Industrial - Other Machinery and Equipment Manufacturing n.e.c.	C249900	C	2	12	6	**20**	5	**24**
Industrial - Automotive Body, Paint and Interior Repair	S941200	S	1	12	7	**19**	6	**26**
Industrial - Roofing Services	E322300	E	-	8	9	**17**	4	**22**
Industrial - Concreting Services	E322100	E	1	10	6	**17**	5	**22**
Industrial - Other Electrical and Electronic Goods Wholesaling	F349400	F	-	11	7	**17**	3	**20**
Industrial - Air Conditioning and Heating Services	E323300	E	5	7	4	**17**	2	**19**
Industrial - Aircraft Manufacturing and Repair Services	C239400	C	-	6	10	**16**	1	**17**
Industrial - Road and Bridge Construction	E310100	E	-	11	4	**15**	3	**18**
Industrial - Commission Based Wholesaling	F380000	F	-	5	10	**14**	4	**18**
Industrial - Other Grocery Wholesaling	F360900	F	2	8	5	**14**	4	**18**
Industrial - Other Goods Wholesaling n.e.c.	F373900	F	-	8	6	**14**	2	**16**
Industrial - Liquor and Tobacco Product Wholesaling	F360600	F	-	7	4	**11**	4	**15**
Industrial - Bakery Product Manufacturing (Non-factory-based)	C117400	C	1	6	3	**10**	3	**13**
Industrial - Laundry and Dry-Cleaning Services	S953100	S	1	6	3	**10**	-	**10**
Industrial - Other Agricultural Product Wholesaling	F331900	F	-	6	4	**9**	3	**13**
Industrial - Urban Bus Transport (Including Tramway)	I462200	I	-	7	2	**9**	-	**9**
Industrial - Other Building Installation Services	E323900	E	1	6	2	**9**	1	**10**
Industrial - Other Hardware Goods Wholesaling	F333900	F	-	6	3	**9**	7	**16**
Industrial - Other Warehousing and Storage Services	I530900	I	2	4	3	**9**	1	**10**
Industrial - Electronic (except Domestic Appliance) and Precision Equipment	S942200	S	-	3	5	**8**	-	**8**
Industrial - Clothing and Footwear Wholesaling	F371200	F	-	5	3	**8**	-	**8**
Industrial - Other Manufacturing n.e.c.	C259900	C	1	5	1	**8**	1	**9**
Industrial - Clothing Manufacturing	C135100	C	-	7	-	**7**	2	**9**
Industrial - Beer Manufacturing	C121200	C	-	5	2	**7**	1	**8**
Industrial - Solid Waste Collection Services	D291100	D	-	4	3	**7**	-	**7**
Industrial - Printing	C161100	C	-	6	-	**6**	-	**6**
Industrial - Cut and Sewn Textile Product Manufacturing	C133300	C	-	2	4	**6**	-	**6**
Industrial - Other Fabricated Metal Product Manufacturing n.e.c.	C229900	C	-	4	2	**6**	4	**10**
Industrial - Other Transport Support Services n.e.c	I529900	I	1	2	3	**6**	-	**6**
Industrial - Glazing Services	E324500	E	-	3	3	**6**	1	**7**
Industrial - Medical and Surgical Equipment Manufacturing	C241200	C	1	2	2	**5**	-	**5**
Industrial - Confectionery Manufacturing	C118200	C	-	3	2	**5**	-	**5**
Industrial - Iron Smelting and Steel Manufacturing	C211000	C	1	1	3	**5**	-	**5**
Industrial - Other Non-Metallic Mineral Product Manufacturing	C209000	C	1	2	2	**5**	2	**7**
Industrial - Fire and Security Alarm Installation Services	E323400	E	-	5	-	**5**	-	**5**
Industrial - Hire of Construction Machinery with Operator	E329200	E	-	3	2	**5**	3	**8**
Industrial - Other Machinery and Equipment Repair and Maintenance	S942900	S	1	3	1	**5**	3	**8**
Industrial - Petroleum Product Wholesaling	F332100	F	-	2	3	**5**	-	**5**
Industrial - Toy and Sporting Goods Wholesaling	F373400	F	-	1	4	**5**	1	**6**
Industrial - Waste Treatment and Disposal Services	D292100	D	-	4	1	**5**	1	**6**
Industrial - Wooden Structural Fittings and Components Manufacturing	C149200	C	-	2	2	**5**	2	**7**
Industrial - Motor Vehicle Body and Trailer Manufacturing	C231200	C	1	2	1	**4**	-	**4**
Industrial - Dairy Produce Wholesaling	F360300	F	1	2	1	**4**	-	**4**
Industrial - Other Wood Product Manufacturing n.e.c.	C149900	C	-	2	2	**4**	1	**5**
Industrial - Heavy Machinery and Scaffolding Rental and Hiring	L663100	L	-	2	2	**4**	2	**6**
Industrial - Motor Vehicle New Part Wholesaling	F350400	F	-	3	1	**4**	1	**5**
Industrial - Automotive Electrical Services	S941100	S	-	3	1	**4**	5	**9**
Industrial - Cake and Pastry Manufacturing (Factory-based)	C117200	C	-	2	2	**4**	-	**4**
Industrial - Other Food Products Manufacturing n.e.c.	C119900	C	-	1	3	**4**	3	**7**

Figure 2.14 - Count of Businesses (2017) in QLD's Industrial Economy by Ward Continued…

Industry	ANZSIC06	Division	Arrowtown	Queenstown	Wanaka	Total QLD	Cromwell	Total Study Area
Industrial - Pharmaceutical and Toiletry Goods Wholesaling	F372000	F	-	-	4	4	-	4
Industrial - Interurban and Rural Bus Transport	I462100	I	-	4	-	4	-	4
Industrial - Other Water Transport Support Services	I521900	I	1	1	2	4	-	4
Industrial - Domestic Appliance Repair and Maintenance	S942100	S	1	2	1	4	1	5
Industrial - Metal Roof and Guttering Manufacturing (except Aluminium)	C222400	C	-	2	2	4	2	6
Industrial - Agricultural and Construction Machinery Wholesaling	F341100	F	-	2	2	4	8	12
Industrial - Concrete Product Manufacturing	C203400	C	-	3	1	4	1	5
Industrial - Jewellery and Silverware Manufacturing	C259100	C	1	2	-	3	1	4
Industrial - Cosmetic and Toiletry Preparation Manufacturing	C185200	C	-	2	1	3	-	3
Industrial - Ready-Mixed Concrete Manufacturing	C203300	C	-	2	1	3	3	6
Industrial - Fish and Seafood Wholesaling	F360400	F	-	2	1	3	-	3
Industrial - Furniture and Floor Coverings Wholesaling	F373100	F	-	1	2	3	-	3
Industrial - Timber Wholesaling	F333100	F	-	3	-	3	2	5
Industrial - Computer and Computer Peripherals Wholesaling	F349200	F	-	3	-	3	-	3
Industrial - Fruit and Vegetable Processing	C114000	C	-	2	1	3	1	4
Industrial - Structural Steel Fabricating	C222100	C	-	1	1	2	-	2
Industrial - Other Specialised Industrial Machinery and Equipment Wholesal	F341900	F	-	1	1	2	3	6
Industrial - Other Machinery and Equipment Wholesaling n	F349900	F	-	2	-	2	-	2
Industrial - Boatbuilding and Repair Services	C239200	C	-	1	1	2	-	2
Industrial - Industrial and Agricultural Chemical Product Wholesaling	F332300	F	-	1	1	2	4	6
Industrial - Human Pharmaceutical and Medicinal Product Manufacturing	C184100	C	-	-	2	2	-	2
Industrial - Ice Cream Manufacturing	C113200	C	-	-	2	2	-	2
Industrial - Other Furniture Manufacturing	C251900	C	-	1	1	2	-	2
Industrial - Soft Drink, Cordial and Syrup Manufacturing	C121100	C	-	2	-	2	-	2
Industrial - Spirit Manufacturing	C121300	C	-	1	1	2	-	2
Industrial - Textile Finishing and Other Textile Product Manufacturing	C133400	C	-	1	1	2	-	2
Industrial - Waste Remediation and Materials Recovery Services	D292200	D	-	1	1	2	-	2
Industrial - Structural Steel Erection Services	E322400	E	-	1	1	2	-	2
Industrial - Book and Magazine Wholesaling	F373500	F	-	-	2	2	-	2
Industrial - Car Wholesaling	F350100	F	-	1	1	2	1	3
Industrial - Kitchen and Dining Ware Wholesaling	F373300	F	-	1	1	2	-	2
Industrial - Textile Product Wholesaling	F371100	F	-	1	1	2	-	2
Industrial - Metal and Mineral Wholesaling	F332200	F	-	2	-	2	2	4
Industrial - Photographic, Optical and Ophthalmic Equipment Manufacturing	C241100	C	-	2	-	2	-	2
Industrial - Motor Vehicle Dismantling and Used Part Wholesaling	F350500	F	-	1	-	1	2	3
Industrial - Prepared Animal and Bird Feed Manufacturing	C119200	C	-	1	-	1	-	1
Industrial - Fruit and Vegetable Wholesaling	F360500	F	-	-	1	1	3	4
Industrial - Agricultural Machinery and Equipment Manufacturing	C246100	C	-	-	1	1	2	3
Industrial - Aluminium Rolling, Drawing, Extruding	C214200	C	-	-	1	1	-	1
Industrial - Architectural Aluminium Product Manufacturing	C222300	C	-	-	1	1	1	2
Industrial - Basic Inorganic Chemical Manufacturing	C181300	C	-	-	1	1	-	1
Industrial - Bread Manufacturing (Factory-based)	C117100	C	-	-	1	1	-	1
Industrial - Cereal, Pasta and Baking Mix Manufacturing	C116200	C	-	-	1	1	-	1
Industrial - Cleaning Compound Manufacturing	C185100	C	-	-	1	1	1	2
Industrial - Cured Meat and Smallgoods Manufacturing	C111300	C	-	1	-	1	-	1
Industrial - Electric Cable and Wire Manufacturing	C243100	C	-	1	-	1	-	1
Industrial - Milk and Cream Processing	C113100	C	1	-	-	1	-	1
Industrial - Mining and Construction Machinery Manufacturing	C246200	C	-	1	-	1	-	1
Industrial - Oil and Fat Manufacturing	C115000	C	-	1	-	1	1	2
Industrial - Other Ceramic Product Manufacturing	C202900	C	1	-	-	1	-	1
Industrial - Other Electrical Equipment Manufacturing	C243900	C	-	-	1	1	-	1
Industrial - Other Sheet Metal Product Manufacturing	C224000	C	-	-	1	1	-	1
Industrial - Other Specialised Machinery and Equipment Manufacturing	C246900	C	-	1	-	1	-	1
Industrial - Other Structural Metal Product Manufacturing	C222900	C	-	-	1	1	-	1
Industrial - Prefabricated Wooden Building Manufacturing	C149100	C	-	1	-	1	-	1
Industrial - Printing Support Services	C161200	C	-	1	-	1	-	1
Industrial - Steel Pipe and Tube Manufacturing	C212200	C	1	-	-	1	-	1
Industrial - Other Waste Collection Services	D291900	D	-	-	1	1	-	1
Industrial - Jewellery and Watch Wholesaling	F373200	F	-	-	1	1	-	1
Industrial - Meat, Poultry and Smallgoods Wholesaling	F360200	F	-	-	1	1	-	1
Industrial - Freight Forwarding Services	I529200	I	-	1	-	1	-	1
Rest of Manufacturing	*multiple*	C	-	-	-	-	16	16
Rest of Wholesale Trade	*multiple*	F	-	-	-	-	2	2
Total QLD Industrial Economy			133	1,059	736	1,928	431	2,359

Source: M.E, Statistics NZ Business Frame 2017, QLD and COD district plan zones.

denotes unique industries in that Ward (limited to comparison within QLD)

denotes unique industries in that Ward/District (limited to comparison btw. QLD and Cromwell Ward)

Overall, the Arrowtown industrial economy is only small with a selected range of businesses and is highly linked and dependent on activities located in the Queenstown Ward. For the most part, industrial

businesses are duplicated in both Queenstown and Wanaka. This is not to say that each ward does not have *some* businesses that service customers in the opposing ward, as this is always likely. But for the less specialist industries, it is more likely that the data supports a degree of independence – i.e. the wards are largely self-sufficient. A relatively small share of industrial economy businesses is unique to each ward. This alone is not evidence that these businesses service both wards in terms of customers (i.e. they might just be small businesses selling locally), but equally, it is not evidence that they don't.

This issue is examined future in Section 3 using another approach.

3 Economic Linkages and Relationships

This section further examines the trade relationships between the district's three wards and with the rest of New Zealand. The analysis draws on a detailed multi-regional input-output (MRIO) table developed by M.E and used to develop QLDC's employment growth projections within the Economic Futures Model™. This section also indicates the degree to which QLD's industrial economy services demand from other businesses (i.e. serves intermediate demand) versus final demand (households, government and tourists). This analysis provides an opportunity to verify the presence and strength of industrial economy relationships in the Wanaka-Queenstown-Cromwell triangle, and how this may or may not impact on the way that industrial zones in QLD need to be managed over the medium-term future.

3.1 Approach

Not all local demand for industrial activity will be met from within QLD and not all supply from local industrial activity will be consumed within QLD. QLD's industrial economy is shaped by demand and supply and exists within a wider industrial economy that means that what is supplied locally within QLD is only that which is not more efficiently supplied from elsewhere.

Put another way, not all industrial sectors are in demand in QLD and of those that are in demand, not all are economically viable to operate within the District. QLD relies, to some extent on industrial goods and services supplied from outside the District and is more self-sufficient in some industrial sectors than others. QLD also produces industrial products and services for markets elsewhere. These economic processes are captured in an MRIO table. This table underpins the economic growth projections developed in M.E's *Economic Futures Model (EFM),* which has been used to develop employment projections for QLDC (specifically utilised in the Business Development Capacity Assessment 2017 report (M.E)).

The MRIO table is a proprietary product of M.E. Its built from an underlying national level Input-Output (IO) table produced by Statistics NZ. Developing sub-national and multi-regional tables from that base data requires a range of other data inputs and mathematical calibrations. Freight flow data for example helps to reconcile the flow of physical goods between regions. A gravity-based model helps calibrate flows of goods and services at a regional, district and sub-district level. This factors in both supply and demand calculations. Areas with an indicative surplus of supply relative to local demand are deemed to 'export' that surplus to areas with an indicative shortfall of supply relative to local demand, using distance decay and scale functions.

The MRIO developed for QLDC's EFM is a matrix showing gross output[15] (m_{2016}$) by 48 economic sectors within Wanaka Ward, Arrowtown Ward, Queenstown Ward, Dunedin City, Rest of Otago Region and Rest

[15] The measure of total economic activity in the production of new goods and services in an accounting period. Gross output represents, roughly speaking, the total value of sales by producing enterprises (their turnover) in an accounting period (e.g. a quarter or a year), before subtracting the value of intermediate goods used up in production.

of New Zealand. The rows of the matrix show outputs (products and services sold) from each sector in each location and the columns show the inputs (products and services purchased) by each sector in each location.

In simple terms, the matrix shows supply and demand, and balances so that all demand in New Zealand (by sectors as well as by final demand categories of households, local and central government and international exports) is met by total supply, including international imports and inputs to production such as labour (wages and salaries), operating surplus, consumption of fixed capital (stocks and depreciation), subsidies and taxes on products.

It is therefore possible to use the MRIO to trace, for any sector or final demand category, where their inputs (demands) come from, geographically and by supplying sector. This is termed the *upstream supply chain*. It is also possible to trace, for any sector or other factor of production (i.e. imports), where their outputs (products and services supplied) are consumed. geographically and by purchasing sector. This is termed the *downstream supply chain*.

For the purpose of this study, the 48 economic sectors have been broadly matched to the definition of QLD's industrial economy[16]. Using the MRIO table summarised in this way – a range of questions can be answered (within the limitations of the MRIO table) as follows:

- How self-sufficient each ward within the district is in terms of demand for industrial goods and services. Conversely, how reliant different wards are on industrial businesses elsewhere. This includes the share of intermediate demand and final demand met from outside the district.
- The degree to which Queenstown's industrial economy services demand in the Wanaka Ward and vice versa. This has been a key issue in the discourse around vacant capacity of industrial zoned land.
- How the industrial economy sustains activity in other sectors of the economy (as a consumer of intermediate goods and services) or as a supplier of intermediate goods and services). This helps illustrate the economic impact of the local industrial economy.
- Provides insights on what sorts of industrial goods and services are viable to supply within the District, versus industrial goods and services that are more efficient to purchase/import from outside the district (including from larger economies).

3.1.1 Limitations

While full calibration is achieved in generating the MRIO for QLD, the resulting structure of the matrix has not been verified by any primary research. This is a limitation of the model. M.E recommend that surveying of local businesses in the industrial economy would be useful to complement this analysis (and sense check the results). Further, the current MRIO does not explicitly isolate Cromwell Ward or even COD. This analysis is limited to 'Rest of Otago Region' which includes COD, parts of Waitaki District and Clutha District. In future the EFM could be expanded to distinguish COD or even Cromwell Ward. Lastly, the MRIO is based

[16] In most cases, an individual sector in the 48-sector structure captures more 6-Digit ANSICS that included in QLD's industrial economy (where a selection has been made). The exception is the Manufacturing and Construction sectors, where all ANZSICs are included in the definition. Where the 6-Digit ANZSIC in the industrial economy definition accounted for minor share of the aggregate sector, the entire sector was excluded so as not to over represent the scale of the industrial economy in the analysis.

on output ($ millions$_{2016}$). This means that results are driven by products and services that are traded in large quantities and have high $ values. The analysis is therefore not able to demonstrate the flow of 'units' (the quantum of products or services irrespective of value). This may under-represent the relationships of small-scale sectors, or sectors with low levels of low-priced outputs.

3.2 Consumption of Industrial Economy Output

Figure 3.1 summarises the destination of QLD's industrial economy gross output by value (2016). It shows that a significant 65% of QLD industrial economy output is consumed (purchased) within the district. In other words, a significant share of output is produced to meet local demand. A further 18% is consumed within the Rest of Otago (which includes, but is not limited to, Cromwell). The Rest of New Zealand (i.e. everywhere outside of Otago Region) consumes 11% of the output and Dunedin consumes 6% of the total.

Figure 3.1 – Destination of QLD Industrial Economy Output Value $ (2016) – Share of Total

Demand/Consumption of Gross Output	QLD	Dunedin	Rest of Otago	Rest of NZ	Total
Total Business Sectors	38%	3%	11%	7%	59%
Final consumption expenditure - households	3%	1%	1%	1%	6%
Final consumption expenditure - NPISH *	0%	0%	0%	0%	0%
Final consumption expenditure - local government	1%	0%	0%	0%	1%
Final consumption expenditure - central government	0%	0%	0%	0%	1%
International Exports	9%	0%	0%	1%	10%
Gross fixed capital formation	13%	3%	6%	2%	24%
Change in inventories	0%	0%	0%	0%	0%
Total Consumption	65%	6%	18%	11%	100%

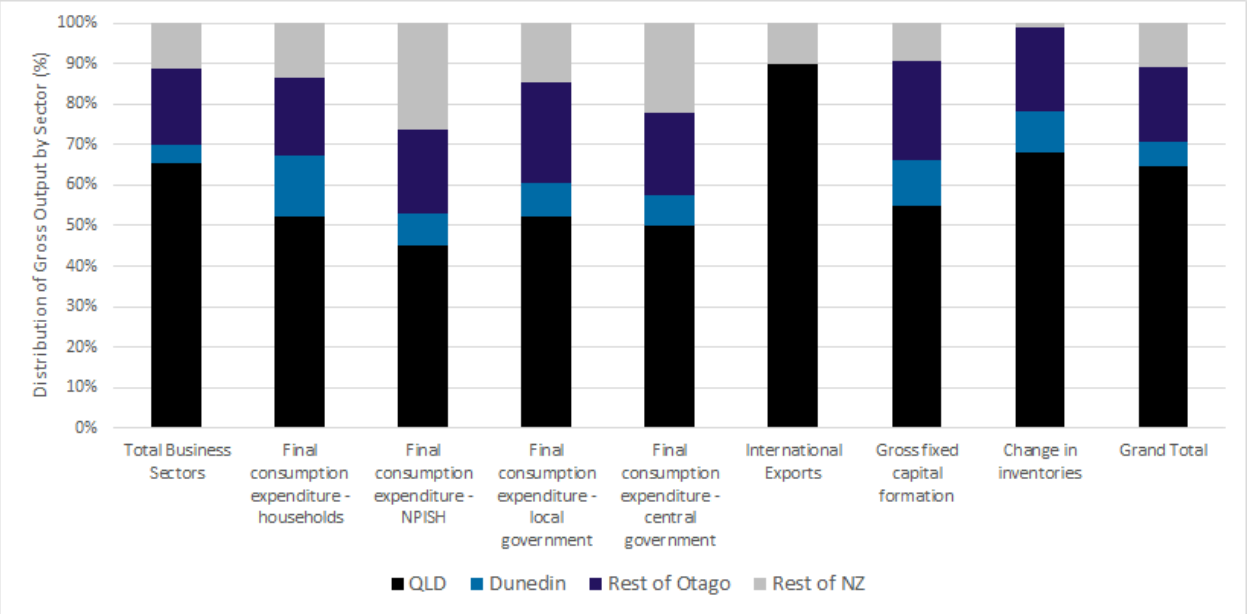
Source: M.E (Queenstown EFM Multi-Regional Input-Output Table) ** Not for Profit Institutions Serving Households*

Looking at the components of that consumption, in total 59% of the gross output from the QLD industrial economy is supplied to other business sectors (as intermediate inputs to production). An estimated 38% of consumption is to local businesses and 11% is to businesses in the Rest of Otago. Just 6% is supplied directly to households (which includes domestic visitors). In other words, only a small share of businesses in the industrial economy direct sell to the public. Local households make up half of that (3%). International exports (which includes tourists but would also including things like wine exports) take 10% of the output in value terms and the majority of the balance (24%) is directed at gross fixed capital formation (net investment by the producers).[17]

Figure 3.2 contains a graph of the same data. QLD consumption of QLD industrial economy output is shown in black. It is clear that the QLD industrial economy is largely (but not exclusively) sustained by local demand.

[17] Gross fixed capital formation includes spending on land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; the construction of roads, railways, private residential dwellings, and commercial and industrial buildings. Disposal of fixed assets is taken away from the total.

Figure 3.2 – Destination of QLD Industrial Economy Output Value $ (2016) – Share of Sector



To put QLD's industrial economy output consumption patterns in context, Figures 3.3 and 3.4 show the same results for the equivalent industrial economy sectors in Dunedin City[18]. It shows that a significant 81% of output is consumed within Dunedin City (compared to 65% for QLD). A further 9% is consumed by the Rest of Otago Region (compared to 18% for QLD). This means in relative terms the Rest of Otago Region is a more important market for QLD's industrial economy than it is to Dunedin's industrial economy. A further 9% of Dunedin's industrial output value is consumed in the Rest of New Zealand – also lower than the QLD share. Demand from QLD consumes 2% of the output from industrial businesses in Dunedin.

Figure 3.3 – Destination of Dunedin Industrial Economy Output Value $ (2016) – Share of Total

Demand/Consumption of Gross Output	QLD	Dunedin	Rest of Otago	Rest of NZ	Total
Total Business Sectors	1%	38%	6%	5%	49%
Final consumption expenditure - households	0%	10%	1%	1%	12%
Final consumption expenditure - NPISH *	0%	0%	0%	0%	0%
Final consumption expenditure - local government	0%	1%	0%	0%	2%
Final consumption expenditure - central government	0%	1%	0%	0%	1%
International Exports	0%	12%	0%	2%	14%
Gross fixed capital formation	0%	19%	2%	1%	22%
Change in inventories	0%	0%	0%	0%	0%
Total Consumption	2%	81%	9%	9%	100%

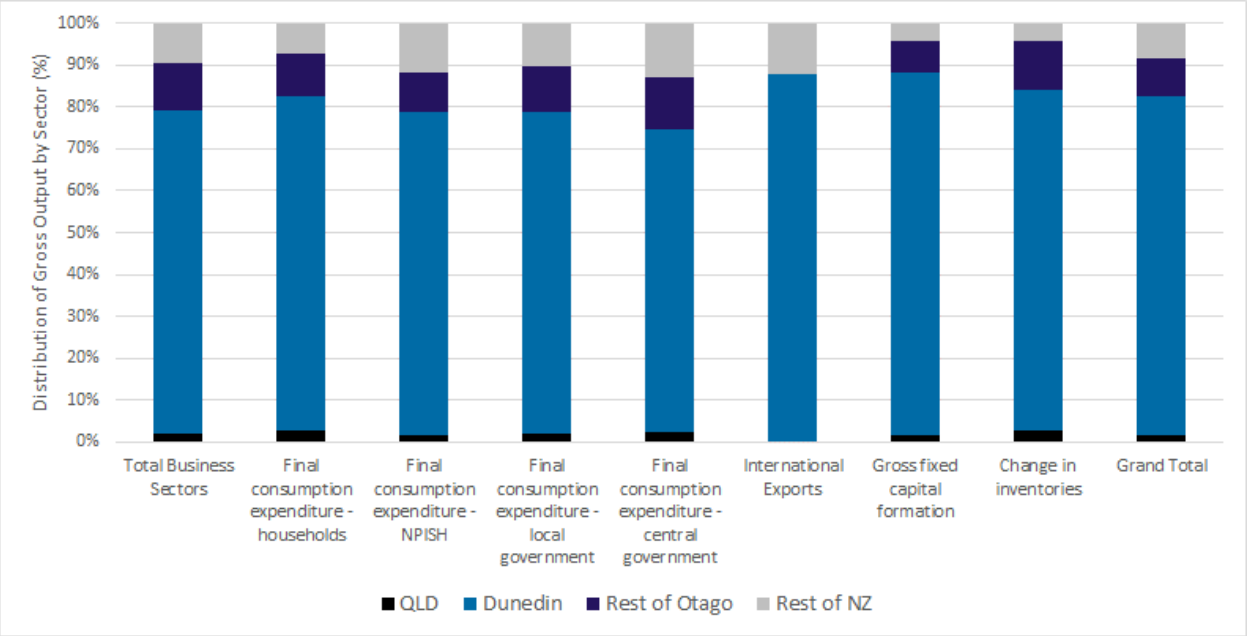
Source: M.E (Queenstown EFM Multi-Regional Input-Output Table) ** Not for Profit Institutions Serving Households*

Looking at the component of consumption for Dunedin, 49% of output value is consumed by other business sectors (this is much less than in QLD on 69%). A much higher share is direct sold to households (12%) and this is much more localised than in Queenstown. This will in part be driven by different domestic visitor rates. A higher share of Dunedin output goes to international exports (14% compared to 10%). This is likely

[18] Note, this does not necessarily capture Dunedin City's total industrial economy.

to be focussed on international exports via freight (shipping) rather an international tourist component as in QLD. A slightly lower share is invested in fixed capital in Dunedin (22% compared to 24%).

Figure 3.4 – Destination of Dunedin Industrial Economy Output Value $ (2016) – Share of Sector



In comparison to Dunedin, QLD is not as self-sufficient in terms of meeting its own demand for industrial goods and services. QLD is more reliant on bringing products and services in but is a small economy overall and this is likely to be the case for all districts of QLD's size. However, QLD's distance from other larger economies most likely means that QLD is still more self-sufficient that many comparably sized districts that benefit from closer proximity to major cities.

3.3 Upstream and Downstream Linkages

This section examines these patterns at a ward level. Figure 3.5 looks at the upstream and downstream relationships for the industrial economy in Queenstown Ward. A more detailed table, that identifies the 'top 8' sectors of supply and demand by location is included in Appendix 5.

In terms of where the industrial economy in Queenstown ward gets its inputs to production (upstream supply chain), 48.3% is non-product or service related. I.e. is the labour (measured as compensation to employees, 18.5%), international imports (10.3%), profit (operating surplus, 10.9%) and other. Of the product and service inputs, 30.2% of inputs by value come from other businesses within Queenstown ward (this is the degree to which it is locally self-sufficient). A moderate share (12.8%) comes from the Rest of New Zealand (that is areas outside of Otago). Just under 5% of inputs by value (4.9%) come from Rest of Otago Region (which includes but is not limited to Cromwell). The next largest share comes from suppliers in Dunedin (1.8% of total input value). Just 1.2% of inputs by value come from businesses in the Wanaka Ward.

In terms of the 'economic triangle' of Queenstown-Wanaka-Cromwell; Rest of Otago is relatively more important to meeting demand arising from Queenstown's industrial economy than Wanaka is. Note, this is

not demand arising from the *all* sectors of the economy (including households), just the needs of the businesses in Queenstown's industrial economy to supply their products and services. Put simply, there is more demand related trade flowing between Rest of Otago and Queenstown than there is flowing from Wanaka to Queenstown. The key sectors that Queenstown's industrial economy businesses rely on in Rest of Otago include Construction products/services (0.9% of total input value) and Wood Product Manufacturing (0.6%) (Appendix 5).

Figure 3.5 – Summary of Queenstown Ward Industrial Economy Upstream & Downstream Linkages

Location / Sector	Upstream (Inputs)	Downstream (Outputs)
Wanaka Ward Businesses	1.2%	1.5%
Wanaka Ward Households/Govt		0.4%
Wanaka Ward Other Consumption/Intl. Exports		0.8%
Sub-Total Wanaka Ward	1.2%	2.7%
Arrowtown Ward Businesses	0.7%	1.0%
Arrowtown Ward Households/Govt		0.2%
Arrowtown Ward Other Consumption/Intl. Exports		0.8%
Sub-Total Arrowtown Ward	0.7%	1.9%
Queenstown Ward Businesses	30.2%	37.5%
Queenstown Ward Households/Govt		3.1%
Queenstown Ward Other Consumption/Intl. Exports		22.2%
Sub-Total Queenstown Ward	30.2%	62.8%
Dunedin Businesses	1.8%	2.4%
Dunedin Households/Govt		0.8%
Dunedin Other Consumption/Intl. Exports		2.3%
Sub-Total Dunedin	1.8%	5.6%
Rest of Otago Businesses	4.9%	10.1%
Rest of Otago Households/Govt		1.1%
Rest of Otago Other Consumption/Intl. Exports		5.3%
Sub-Total Rest of Otago	4.9%	16.6%
Rest of New Zealand Businesses	12.8%	6.3%
Rest of New Zealand Households/Govt		1.0%
Rest of New Zealand Other Consumption/Intl. Exports		3.0%
Sub-Total Rest of New Zealand	12.8%	10.4%
Taxes on products	0.9%	
Compensation of Employees	18.5%	
Operating Surplus	10.9%	
Consumption of Fixed Capital	7.2%	
Other Taxes on products	0.7%	
Subsidies	-0.2%	
International Imports	10.3%	
Sub-Total Other	48.3%	0.0%
Total	100.0%	100.0%

Source: M.E (Queenstown EFM Multi-Regional Input-Output Table)

In terms of downstream relationships of the Queenstown industrial economy, an estimated 62.8% of product and service value is consumed by businesses and final demand sectors within Queenstown. The Construction sector consumes 21.4% of total output value. A moderately significant 16.6% of output value is consumed in the Rest of Otago, again primarily the Construction sector in that catchment. A further 10.4% is consumed by demand arising in the Rest of New Zealand and 5.6% is consumed by demand arising in Dunedin City. Just 2.7% of output by value is destined for Wanaka ward (primarily the construction sector there). Arrowtown consumes 1.9% of output.

We can conclude from this analysis, that most of the output of the Queenstown industrial economy stays local. The Rest of Otago market is more important to Queenstown than the Wanaka market in terms of selling its products and services.

Figure 3.6 looks at the upstream and downstream relationships for the industrial economy in **Wanaka Ward**. A more detailed table, that identifies the 'top 8' sectors of supply and demand by location is included in Appendix 6.

Figure 3.6 – Summary of Wanaka Ward Industrial Economy Upstream & Downstream Linkages

Location / Sector	Upstream (Inputs)	Downstream (Outputs)
Wanaka Ward Businesses	27.8%	32.0%
Wanaka Ward Households/Govt		3.0%
Wanaka Ward Other Consumption/Intl. Exports		18.9%
Sub-Total Wanaka Ward	27.8%	53.9%
Arrowtown Ward Businesses	0.5%	0.7%
Arrowtown Ward Households/Govt		0.3%
Arrowtown Ward Other Consumption/Intl. Exports		0.4%
Sub-Total Arrowtown Ward	0.5%	1.4%
Queenstown Ward Businesses	3.1%	3.4%
Queenstown Ward Households/Govt		1.0%
Queenstown Ward Other Consumption/Intl. Exports		1.0%
Sub-Total Queenstown Ward	3.1%	5.4%
Dunedin Businesses	2.3%	3.1%
Dunedin Households/Govt		1.4%
Dunedin Other Consumption/Intl. Exports		3.1%
Sub-Total Dunedin	2.3%	7.5%
Rest of Otago Businesses	5.8%	12.1%
Rest of Otago Households/Govt		2.3%
Rest of Otago Other Consumption/Intl. Exports		6.4%
Sub-Total Rest of Otago	5.8%	20.8%
Rest of New Zealand Businesses	14.7%	6.6%
Rest of New Zealand Households/Govt		1.0%
Rest of New Zealand Other Consumption/Intl. Exports		3.4%
Sub-Total Rest of New Zealand	14.7%	11.0%
Taxes on products	1.0%	
Compensation of Employees	18.0%	
Operating Surplus	10.5%	
Consumption of Fixed Capital	4.6%	
Other Taxes on products	0.7%	
Subsidies	-0.2%	
International Imports	11.2%	
Sub-Total Other	45.8%	0.0%
Total	100.0%	100.0%

Source: M.E (Queenstown EFM Multi-Regional Input-Output Table)

In terms of where the industrial economy in Wanaka ward gets its inputs to production (upstream supply chain), 45.8% is non-product or service related. I.e. is the labour, (18.0%), international imports (11.2%), profit (operating surplus, 10.5%) and other. Of the product and service inputs, 27.8% of inputs by value come from other businesses within Wanaka ward (this is the degree to which it is locally self-sufficient, which is much less than in Queenstown). A moderate share (14.7%) comes from the Rest of New Zealand (that is areas outside of Otago). Again, this is higher than for Queenstown. Just under 6% of inputs by value (5.8%) come from Rest of Otago Region (which includes but is not limited to Cromwell). The next largest

share comes from suppliers in Queenstown Ward (3.1% of total input value). Just 2.3% of inputs by value come from businesses in Dunedin City. Arrowtown plays a very minor supply role.

In terms of the 'economic triangle' of Queenstown-Wanaka-Cromwell; Rest of Otago is relatively more important to meeting demand arising from Wanaka's industrial economy than Queenstown is. Note, this is not demand arising from the *all* sectors of the economy (including households), just the needs of the businesses in Wanaka's industrial economy to supply their products and services. Put simply, there is more demand related trade flowing between Rest of Otago and Wanaka than there is flowing from Queenstown to Wanaka. The key sectors that Wanaka's industrial economy businesses rely on in Rest of Otago include Construction products/services (1.2% of total input value) and Wood Product Manufacturing (0.6%) (Appendix 6).

In terms of downstream relationships of the Wanaka industrial economy, an estimated 53.9% of product and service value is consumed by businesses and final demand sectors within Wanaka. The Construction sector consumes 20.6% of total output value. A moderately significant 20.8% of output value is consumed in the Rest of Otago, again primarily the Construction sector in that catchment. A further 11.0% is consumed by demand arising in the Rest of New Zealand and 7.5% is consumed by demand arising in Dunedin City. Just 5.4% of output by value is destined for Queenstown ward (primarily the construction sector there). Arrowtown consumes 1.4% of output.

We can conclude from this analysis, that most of the output of the Wanaka industrial economy stays local. The Rest of Otago market is more important to Wanaka than the Queenstown market in terms of selling its products and services.

Figure 3.7 looks at the upstream and downstream relationships for the industrial economy in Arrowtown Ward. A more detailed table, that identifies the 'top 8' sectors of supply and demand by location is included in Appendix 7.

In terms of where the industrial economy in Arrowtown ward gets its inputs to production (upstream supply chain), 44.7% is non-product or service related. I.e. is the labour, (16.9%), international imports (11.5%), profit (operating surplus, 10.1%) and other. Of the product and service inputs, 18.9% of inputs by value come from other businesses within Arrowtown ward (this is the degree to which it is locally self-sufficient, which is much less than in Queenstown or Wanaka – not unexpected given its size). A moderate share (14.5%) comes from the Rest of New Zealand (that is areas outside of Otago). Again, this is higher than for Queenstown but similar to Wanaka. Just under 6% of inputs by value (5.9%) come from Rest of Otago Region (which includes but is not limited to Cromwell). The next largest share comes from suppliers in Queenstown Ward (10.5% of total input value). Just 3.2% of inputs by value come from businesses in Wanaka Ward. Dunedin City plays a more minor supply role.

In terms of the 'economic triangle', and notwithstanding the clearly important relationship Arrowtown has with wider Queenstown; Rest of Otago is relatively more important to meeting demand arising from Arrowtown's industrial economy than Wanaka is. Note, this is not demand arising from the *all* sectors of the economy (including households), just the needs of the businesses in Arrowtown's industrial economy to supply their products and services. Put simply, there is more demand related trade flowing between Rest of Otago and Arrowtown than there is flowing from Wanaka to Arrowtown. The key sectors that Arrowtown's industrial economy businesses rely on in Rest of Otago include (again) Construction products/services (1.3% of total input value) and Wood Product Manufacturing (0.8%) (Appendix 7).

Figure 3.7 – Summary of Arrowtown Ward Industrial Economy Upstream & Downstream Linkages

Location / Sector	Upstream (Inputs)	Downstream (Outputs)
Wanaka Ward Businesses	3.2%	2.1%
Wanaka Ward Households/Govt		0.3%
Wanaka Ward Other Consumption/Intl. Exports		0.9%
Sub-Total Wanaka Ward	3.2%	3.3%
Arrowtown Ward Businesses	18.9%	22.0%
Arrowtown Ward Households/Govt		0.9%
Arrowtown Ward Other Consumption/Intl. Exports		14.6%
Sub-Total Arrowtown Ward	18.9%	37.6%
Queenstown Ward Businesses	10.5%	8.3%
Queenstown Ward Households/Govt		0.8%
Queenstown Ward Other Consumption/Intl. Exports		3.3%
Sub-Total Queenstown Ward	10.5%	12.4%
Dunedin Businesses	2.2%	3.3%
Dunedin Households/Govt		0.4%
Dunedin Other Consumption/Intl. Exports		4.2%
Sub-Total Dunedin	2.2%	7.9%
Rest of Otago Businesses	5.9%	15.0%
Rest of Otago Households/Govt		0.7%
Rest of Otago Other Consumption/Intl. Exports		9.3%
Sub-Total Rest of Otago	5.9%	25.1%
Rest of New Zealand Businesses	14.5%	8.2%
Rest of New Zealand Households/Govt		1.0%
Rest of New Zealand Other Consumption/Intl. Exports		4.6%
Sub-Total Rest of New Zealand	14.5%	13.8%
Taxes on products	1.1%	
Compensation of Employees	16.9%	
Operating Surplus	10.1%	
Consumption of Fixed Capital	4.7%	
Other Taxes on products	0.6%	
Subsidies	-0.3%	
International Imports	11.5%	
Sub-Total Other	44.7%	0.0%
Total	100.0%	100.0%

Source: M.E (Queenstown EFM Multi-Regional Input-Output Table)

In terms of downstream relationships of the Arrowtown industrial economy, an estimated 37.6% of product and service value is consumed by businesses and final demand sectors within Arrowtown. The Construction sector consumes 17.1% of total output value. A moderately significant 25.1% of output value is consumed in the Rest of Otago, again primarily the Construction sector in that catchment. A further 13.8% is consumed by demand arising in the Rest of New Zealand and 12.4% is consumed by demand arising in Queenstown ward. An estimated 7.9% of output by value is destined for Dunedin City (primarily the construction sector there). Wanaka consumes 3.3% of output.

We can conclude from this analysis, that most of the output of the Arrowtown industrial economy stays local (including Queenstown). The Rest of Otago market is more important to Arrowtown than the Wanaka market in terms of selling its products and services.

Finally, Figure 3.8 looks at the upstream and downstream relationships for the industrial economy in **Rest of Otago**. While this is not specific to Cromwell (the catchment of most interest to QLDC's enquiry), it is the

best information we have to date. A more detailed table, that identifies the 'top 8' sectors of supply and demand by location is included in Appendix 8.

Figure 3.8 – Summary of Rest of Otago Industrial Economy Upstream & Downstream Linkages

Location / Sector	Upstream (Inputs)	Downstream (Outputs)
Wanaka Ward Businesses	1.8%	0.8%
Wanaka Ward Households/Govt		0.2%
Wanaka Ward Other Consumption/Intl. Exports		0.4%
Sub-Total Wanaka Ward	1.8%	1.5%
Arrowtown Ward Businesses	0.4%	0.2%
Arrowtown Ward Households/Govt		0.1%
Arrowtown Ward Other Consumption/Intl. Exports		0.1%
Sub-Total Arrowtown Ward	0.4%	0.4%
Queenstown Ward Businesses	2.9%	1.8%
Queenstown Ward Households/Govt		0.5%
Queenstown Ward Other Consumption/Intl. Exports		0.7%
Sub-Total Queenstown Ward	2.9%	3.0%
Dunedin Businesses	7.8%	6.7%
Dunedin Households/Govt		3.5%
Dunedin Other Consumption/Intl. Exports		5.1%
Sub-Total Dunedin	7.8%	15.3%
Rest of Otago Businesses	29.6%	21.2%
Rest of Otago Households/Govt		2.7%
Rest of Otago Other Consumption/Intl. Exports		39.9%
Sub-Total Rest of Otago	29.6%	63.8%
Rest of New Zealand Businesses	20.4%	6.5%
Rest of New Zealand Households/Govt		2.2%
Rest of New Zealand Other Consumption/Intl. Exports		7.3%
Sub-Total Rest of New Zealand	20.4%	16.0%
Taxes on products	0.7%	
Compensation of Employees	18.9%	
Operating Surplus	5.8%	
Consumption of Fixed Capital	4.4%	
Other Taxes on products	0.6%	
Subsidies	-0.4%	
International Imports	7.1%	
Sub-Total Other	37.2%	0.0%
Total	100.0%	100.0%

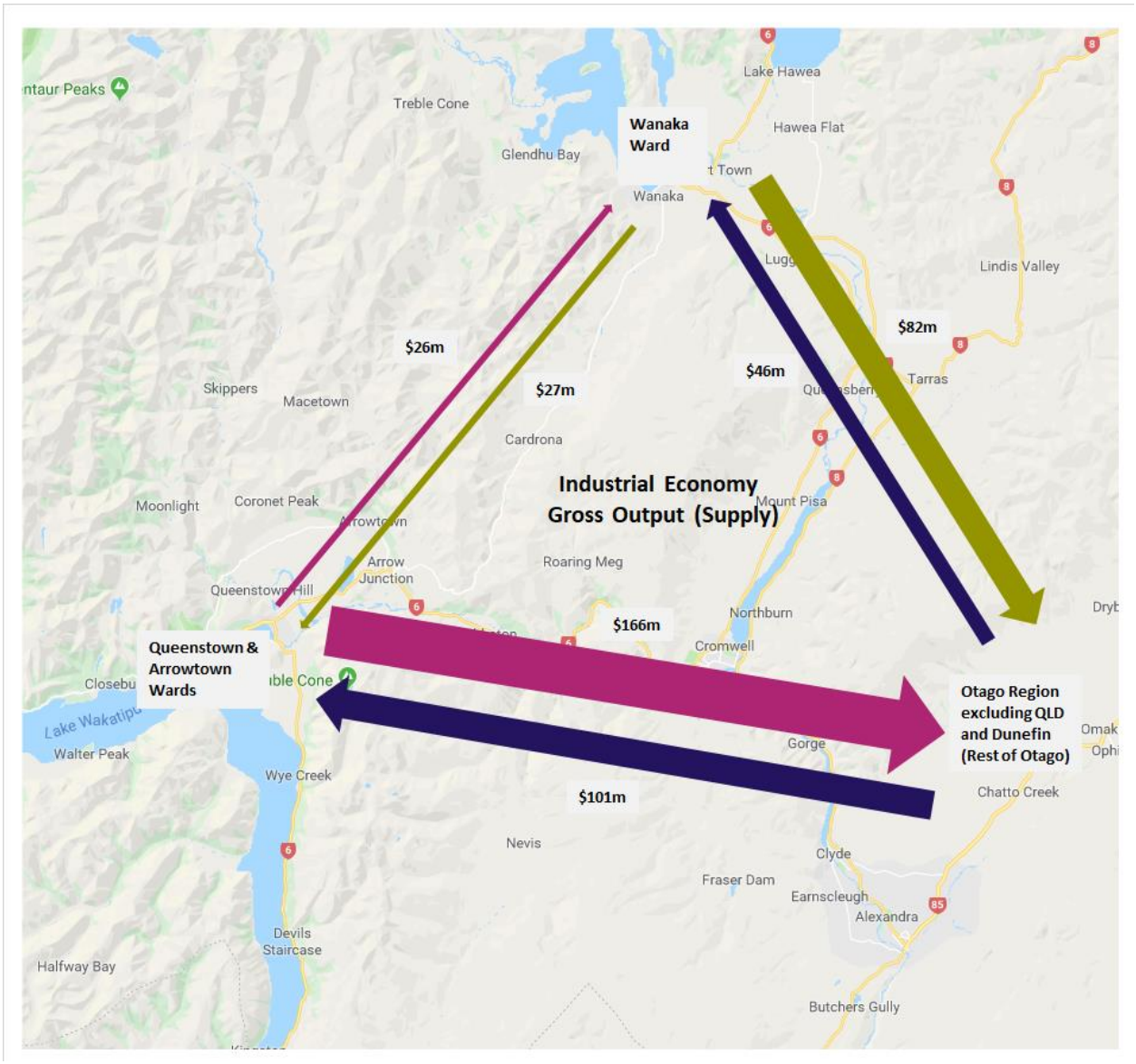
Source: M.E (Queenstown EFM Multi-Regional Input-Output Table)

The key thing to note in Figure 3.8 is that the Rest of Otago industrial economy demands more products and services from the Queenstown Ward (in value term) than it does the Wanaka Ward (2.9% compared to 1.8% respectively). This is expected that Queenstown is the bigger of the two economies. In terms of supplying products to QLD, the Rest of Otago industrial economy sends twice as much value to Queenstown Ward as it does to Wanaka Ward, but these shares of low relative to other parts of New Zealand. Again, this is as expected given the relative size of the two markets. Care is needed in inferring a relationship with Cromwell specifically, as the ratios may be quite different than for the catchment as a whole.

Figure 3.9 provides an overview of the Queenstown-Wanaka-Rest of Otago triangle from an industrial economy downstream (supply) perspective. This does not capture upstream flows that contribute to production of outputs. For this summary, Queenstown and Arrowtown have been combined as a single industrial economy for the supply of goods and services (selling) and a single total market for the

consumption of industrial economy goods and services (buying). The results are also expressed in dollar terms of gross output ($\$m_{2016}$)[19].

Figure 3.9 – Catchment's Industrial Economy External Supply to Total Catchment Market ($m)



As discussed above, the Queenstown/Arrowtown industrial economy sells a greater value of products and services to the total Rest of Otago market, than the Rest of Otago industrial economy sells to the total Queenstown/Arrowtown market. *Is some of the intermediate and final demand in Queenstown/Arrowtown for products and services from industrial activities met by businesses located in the Rest of Otago (and possibly Cromwell)?* The answer is: yes (approximately $100m worth). This is, however, a similar amount to that which is met from further afield (Dunedin and Rest of New Zealand). All this intermediate and final

[19] Given the stated limitations of the MRIO, these dollar figures should be considered indicative only and are used to show the order of magnitude.

demand that is met from outside the district is however small compared to the amount that is met by the local industrial economy.

Finally, the downstream trade from the industrial economy in Wanaka that is consumed in Queenstown/Arrowtown is very similar to the downstream trade from the industrial economy in Queenstown/Arrowtown that is consumed in Wanaka. The flow of industrial products and services sold is minor, at about $26-27m each way (not including upstream supply flows (inputs to production)). *Does the Wanaka industrial economy help service the needs of the Queenstown/Arrowtown market at present?* The answer to that question is: to a very limited extent. *Would the Wanaka industrial economy be able to play a greater role in meeting the needs of the Queenstown/Arrowtown market in the future?* The answer to that question is: highly unlikely based on current industrial economy supply and demand relationships. For the large part, both catchments are focussed on supplying local demand. They operate as mostly independent markets, although both are dependent on relationships outside the district.

4 QLD Industrial Economy by Zone

This section examines the location of the QLD industrial economy at a zone level. This helps with understanding the land use and locational requirements of businesses included in the industrial economy. It begins with an analysis of what industrial businesses are located in QLD's urban and rural environments, then examines the distribution of businesses and employment across zone types, placing the industrial economy businesses in the context of the overall role of those zones. Further insight is then provided on the industrial/business zones of specific interest for Stage 3 of the District Plan Review.

Not all of the industrial economy exists in the District's industrial zones. The Industrial, Industrial B, Ballantyne Road Mixed Use Zone and Gorge Road Business Zone are only a subset of zones enabling industrial land use. There are a range of zones in the Stage 1 decisions version District Plan that enable or accommodate (through existing use rights or consent) what might be considered industrial land use activities. This includes the Frankton Flats B Special Zones (certain structure plan precincts), Three Parks (business precincts), The Airport zones, the industrial overlay area in Luggate, the Business Mixed Use Zone, Business Zone (Gorge Road), the Rural Zone (with regards to quarries, waste management facilities, Waste Water Treatment Plants, rural based industrial activities etc) and even the incidence of industrial premises in the Township Zone (i.e. Albert Town east of the State Highway). The Coneburn Industrial zone has now also been zoned but is presently a greenfield site.

While these zones are outside the scope of this assessment, any assessment of the QLD industrial economy needs to take into account the full picture. The distribution of industrial land use businesses by zone is an important part of the context for understanding the role of the Industrial, Industrial B and Business (Operative) zones (to the extent to which these are currently occupied).

4.1 Location Drivers

The location of businesses in the industrial economy is driven by the following key drivers:

- The nature of the business – As described earlier, M.E has identified a list of business types (6-Digit ANZSICs) that either fall within *typical* 'industrial' definitions (i.e. Manufacturing and Construction), as well as business types that are *typically* understood to require land use and a built form anticipated in industrial zones (warehouses, factories, yards) and businesses currently present in the district that fit within the activities *broadly enabled* in industrial zones (i.e. industrial service activities). A limitation of this approach to describing the industrial economy is that within those businesses there may be range of functional/operational business forms. Simply the name of the 6-Digit ANZSIC description is not always a good enough indicator of the physical form of a business.

  Within the identified industrial economy there will be some businesses that are fully office based for example (yet fall within the Construction Division – which is generally defined as 'industrial'). We would expect them to seek a location suited to commercial office space. Other businesses might have their office-based activities in one zone and their manufacturing / storage / yard /

service activities in another zone. This might register the business to the office location in terms of the Business Directory conventions (and this analysis); underestimating the businesses that operate from (or require space within) industrial zones. Others might have a functional need for office space (most businesses do) and this might be on the same site as the physical industrial activities (ancillary office space). Within any one ANZSIC we have included in our 'industrial economy', there will be a spectrum of physical business forms – ranging from offices, warehouses, factories or yards, and combinations of these.

- The scale of the business – Not all manufacturing or service industries included in the industrial economy are necessarily large in scale. The scale of operation depends on what space/land requirements are needed for that operation. Within any one ANZSIC that has been included in the description of the industrial economy, there will be very small operations through to much larger operations. It is less likely that very small operations would justify premises or a site in an industrial zone, or any other zone. These businesses can usually be run from people's residences (and may or may not be identified as Home Occupation properties). Builders for example typically register their business to their home address. Therefore, a significant share of the Construction sector is found in Residential Zones.
- The externality effects of the business – Some businesses within the identified industrial economy – depending on their nature and scale – may have externality effects that limit the locations where they can operate. This may include noise, dust, glare, odour, unusual hours of operation and visual effects, or effects associated with heavy truck movements or high vehicle trip generation. Such businesses seek locations where these externality effects are anticipated/tolerated and can be managed (including by managing reverse sensitivity effects).
- A dependence on proximity to physical resources – Certain businesses have a functional need to be close to resources that are inputs to their business (and in some cases, close to their customers). This is often the case for rural based industrial activities such as quarries, food processing (milk product factories, beverage manufacturing (i.e. vineyards that manufacture wine on site), meat processing), agricultural service industries, sawmills, agricultural machinery manufacturing or servicing, etc. Some industrial businesses also have a functional need for high water or power volumes that cannot be supplied through urban infrastructure.
- Supply of suitable sites/buildings - For those industrial economy businesses that do require land or space in an urban business enabled zone, their ultimate location will depend on the availability of sites (to buy or lease, built or vacant) at the appropriate size and price that meets all their business needs and allows them to operate effectively. These 'supply' factors are where district plans have a direct influence, although not total control. It is up to the landowners to determine what they deliver to the market while satisfying the rules/standards of the zone (or alternatively seeking approval when there is non-compliance).

The analysis in this section – the location of the industrial economy by zone – shows the combined impact of all of these key location drivers.

4.2 Rural Urban Split of Industrial Economy

M.E has split QLD according to an urban and rural environment, at the (2013) meshblock level. For consistency, the adopted urban-rural environment matches that used for the Council's Business Development Capacity Assessment 2017 under the NPS – UDC. It is important to note that the rural environment includes areas of urban land use (including the Township Zones of Kingston, Glenorchy and Makarora). It also includes several Special Zones that may be urban in nature (such as resort zones) as well as the Wanaka Airport Zone and ski fields. The urban area generally captures all the zones within the urban growth boundaries, as well as Luggate, the Luggate rural industrial overlay and the small area of Low Density Residential zone adjacent to Lake Hayes.

Figure 4.1 shows the urban/rural split of 2017 businesses (top part of table) and employment (bottom part of table) in QLD's industrial economy, summarised by Division. More detailed tables at the 6-Digit ANZSIC level are included in Appendix 9. Overall, 82% of businesses in the industrial economy are located within the urban environment (1,587 businesses our of a total of 1,928 in 2017). This compares to 80% of all other businesses in the economy located in the urban environment. A total of 341 businesses that fall within the industrial economy description are located in the rural environment.

Figure 4.1 – Summary of QLD Industrial Economy by Urban-Rural Environment (2017)

ANZSIC Division	Industrial Economy Selection	Urban Environment Count	Rural Environment Count	Total QLD Count (2017)	Urban Share of QLD (%)	Rural Share of QLD (%)	Urban Structure of IE (%)	Rural Structure of IE (%)
Business Count (2017)								
A	Selected Ag/Forestry/Fishing Support Services	27	24	50	53%	47%	2%	7%
C	Manufacturing	181	44	225	80%	20%	11%	13%
D	Waste Services Group Only	13	2	15	90%	10%	1%	0%
E	Construction	965	203	1,168	83%	17%	61%	60%
F	Wholesale Trade	135	19	154	88%	12%	9%	6%
I	Selected Transport, Postal and Warehousing	71	14	85	84%	16%	4%	4%
L	Selected Rental and Hiring Services	103	25	128	81%	19%	7%	7%
S	Selected Other Services	92	11	102	89%	11%	6%	3%
QLD Industrial Economy Business Count		1,587	341	1,928	82%	18%	100%	100%
Rest of QLD Economy (all other ANZSICs)		4,625	1,157	5,782	80%	20%		
Total QLD Economy Business Count		6,213	1,498	7,710	81%	19%		
Employment Count (2017)								
A	Selected Ag/Forestry/Fishing Support Services	66	64	130	51%	49%	1%	7%
C	Manufacturing	692	170	862	80%	20%	13%	18%
D	Waste Services Group Only	101	2	103	98%	2%	2%	0%
E	Construction	2,871	594	3,465	83%	17%	54%	63%
F	Wholesale Trade	532	42	573	93%	7%	10%	4%
I	Selected Transport, Postal and Warehousing	273	38	312	88%	12%	5%	4%
L	Selected Rental and Hiring Services	348	23	371	94%	6%	7%	2%
S	Selected Other Services	418	17	434	96%	4%	8%	2%
QLD Industrial Economy Employment Count		5,300	948	6,249	85%	15%	100%	100%
Rest of QLD Economy (all other ANZSICs)		19,024	2,527	21,551	88%	12%		
Total QLD Economy Employment Count		24,325	3,475	27,800	88%	12%		

Source: M.E, Statistics NZ Business Frame 2017, QLD amalgamated district plan zones. Urban Environment includes zones within urban limits plus Luggate, Luggate Rural Industrial Subzone, LDR adjacent to Lake Hayes (as per QLDC BDCA 2017). The Rural Environment includes special zone and townships that are urban in nature and includes Wanaka Airport Zone.

Divisions that have an above average propensity to be in the urban environment include Waste Services (90% urban), Construction (83%), Wholesale Trade (88%), Transport, Postal and Warehousing (84%) and Selected Other Services (89%). Agricultural Support Services has the greatest share of businesses in the Rural Environment (47% or 24 businesses). This is not unexpected.

The split of industrial economy employment (2017) is slightly more oriented to the urban environment (85%). This indicates that urban locations sustain industries that are slightly larger in size (in terms of the average count of workers) than those industries locating in the rural environment. For all Divisions except Agricultural Support Services, the urban share of employment is between 80% and 98%).

Figure 4.1 also shows the structure of the industrial economy in the urban versus rural environment. While the urban industrial economy is clearly significantly larger, the mix of businesses is reasonably similar – both dominated by Construction businesses at about 60-61%. Wholesaling and Selected Other Services play a slightly bigger role in urban areas than in the rural environment. Conversely, Agricultural Support Services (only a small sector) and Manufacturing (QLD's second largest industrial economy sector) play a slightly bigger role relative to total businesses in the rural environment.

4.3 Urban Industrial Zones versus Other Urban Zones

This section focuses on zones in the QLD urban environment only. As discussed in section 2.1, the accuracy of Business Directory data to inform zone level analysis is limited by the ability to match much coarser (2013) meshblock boundaries to zone boundaries. Some zones have not been able to be specifically identified. Examples include the Remarkables Park Special Zone, Frankton Flats A Special Zone, Frankton Flats B Special Zone and Glenda Drive Industrial Zone. All four zones are captured in a single meshblock (mapped in Appendix 10). However, in this example, by focussing on the businesses that fall within the identified industrial economy, the results should be more weighted towards Glenda Drive Industrial Zone and Frankton Flats B Special Zone.

For the purpose of this summary, Business Mixed Use and the Business (Operative) zones are grouped. Industrial and Industrial B zones excluding Glenda Drive are grouped and also include the Rural Industrial Overlay in Luggate. Further detail of the zone groupings is tabled in Appendix 10.

Figure 4.2 shows the count of urban industrial economy businesses (2017) by zone group. The results are indicative only due to the limitations of defining zones with meshblocks. Overall, the greatest count of urban industrial economy businesses (899) is found in Other zones (which primarily covers residential focussed zones and the visitor accommodation sub-zones in residential areas). This accounts for a significant 57% of all urban industrial economy businesses. This is dominated by 639 Construction businesses – mainly trade workers who run their business from home. In total, 66% of all urban Construction businesses are located in Other zones. In saying that, they do not dominate the count of businesses included in these defined meshblocks. Construction businesses in this zone group account for just 20% of total businesses (although 71% of total industrial economy businesses, Figure 4.3).

The Township zone accounts for a further 9% of urban industrial economy businesses, and as they are effectively residential zones, could be considered with the Other zones group. 10% of all Construction businesses are located in these zones. In saying that, Selected Agricultural Support Services make up an above average share of businesses in this zone – 19% of the 27 urban businesses in this Division. 12% of all urban Manufacturing businesses are also in Township zones. Combined with the 38% in the Other (residential) zones, this confirms that half of all Manufacturing businesses in the urban environment are very small scale and are likely home-based businesses.

Figure 4.2 – QLD Urban Industrial Economy Businesses by Broad Zone Group (2017)

ANZSIC Division	Industrial Economy Selection	Airport (Queenstown)	Business (Mixed Use & Operative)	Industrial, Industrial B, Rural Overlay	Other Commercial & Industrial (Remarkables Park, Frankton A&B, Glenda Drive Industrial)	Other (Residential and Visitor Accommodation)	Other Commercial (Town Centres and Local Shopping Centres)	Township Zones	Total QLD Urban
A	Selected Ag/Forestry/Fishing Support Services	1	-	4	-	14	3	5	27
C	Manufacturing	2	13	16	26	70	34	22	181
D	Waste Services Group Only	-	-	-	1	6	5	1	13
E	Construction	3	29	25	45	639	131	92	965
F	Wholesale Trade	2	16	10	19	53	29	6	135
I	Selected Transport, Postal and Warehousing	-	3	5	10	36	12	4	71
L	Selected Rental and Hiring Services	5	2	1	10	51	31	3	103
S	Selected Other Services	1	20	11	13	30	13	3	92
QLD Urban Industrial Economy		14	84	72	126	899	257	136	1,587
Rest of QLD Urban Economy (all other ANZSICs)		71	140	101	188	2,320	1,606	199	4,625
Total QLD Urban Economy		85	224	173	314	3,219	1,863	335	6,213
Division Share of Each Zone Group									
A	Selected Ag/Forestry/Fishing Support Services	2%	0%	2%	0%	0%	0%	1%	0%
C	Manufacturing	2%	6%	9%	8%	2%	2%	6%	3%
D	Waste Services Group Only	0%	0%	0%	0%	0%	0%	0%	0%
E	Construction	4%	13%	15%	14%	20%	7%	27%	16%
F	Wholesale Trade	3%	7%	6%	6%	2%	2%	2%	2%
I	Selected Transport, Postal and Warehousing	0%	1%	3%	3%	1%	1%	1%	1%
L	Selected Rental and Hiring Services	5%	1%	1%	3%	2%	2%	1%	2%
S	Selected Other Services	1%	9%	6%	4%	1%	1%	1%	1%
QLD Urban Industrial Economy		16%	38%	42%	40%	28%	14%	41%	26%
Rest of QLD Urban Economy (all other ANZSICs)		84%	62%	58%	60%	72%	86%	59%	74%
Total QLD Urban Economy		100%	100%	100%	100%	100%	100%	100%	100%
Zone Group Share of Each Division									
A	Selected Ag/Forestry/Fishing Support Services	5%	0%	14%	0%	52%	10%	19%	100%
C	Manufacturing	1%	7%	9%	14%	38%	19%	12%	100%
D	Waste Services Group Only	0%	0%	0%	8%	45%	38%	8%	100%
E	Construction	0%	3%	3%	5%	66%	14%	10%	100%
F	Wholesale Trade	2%	12%	7%	14%	39%	21%	4%	100%
I	Selected Transport, Postal and Warehousing	0%	5%	8%	15%	51%	17%	6%	100%
L	Selected Rental and Hiring Services	4%	2%	1%	10%	49%	30%	3%	100%
S	Selected Other Services	1%	22%	12%	15%	33%	14%	4%	100%
QLD Urban Industrial Economy		1%	5%	5%	8%	57%	16%	9%	100%
Rest of QLD Urban Economy (all other ANZSICs)		2%	3%	2%	4%	50%	35%	4%	100%
Total QLD Urban Economy		1%	4%	3%	5%	52%	30%	5%	100%

Source: M.E, Statistics NZ Business Frame 2017. Refer Appendix 10 for detail on zones excluded and spatial extent in meshblock terms.

The Other Commercial zones (Town Centres and Local Shopping Centres) account for 257 urban industrial economy businesses in 2017. This is 16% of the total. The industrial economy businesses make up just 14% of total businesses, confirming that the key role of those zones is focussed elsewhere (e.g. commercial, retail, household and personal service, visitor accommodation, etc). The combined Business Zones (Business Mixed Use and Business (Operative)) in Wanaka and Queenstown account for just 5% of all urban industrial economy businesses (84). They do account for a higher share of urban Wholesale businesses included in the urban industrial economy (12%) and 22% of Selected Other Services businesses.

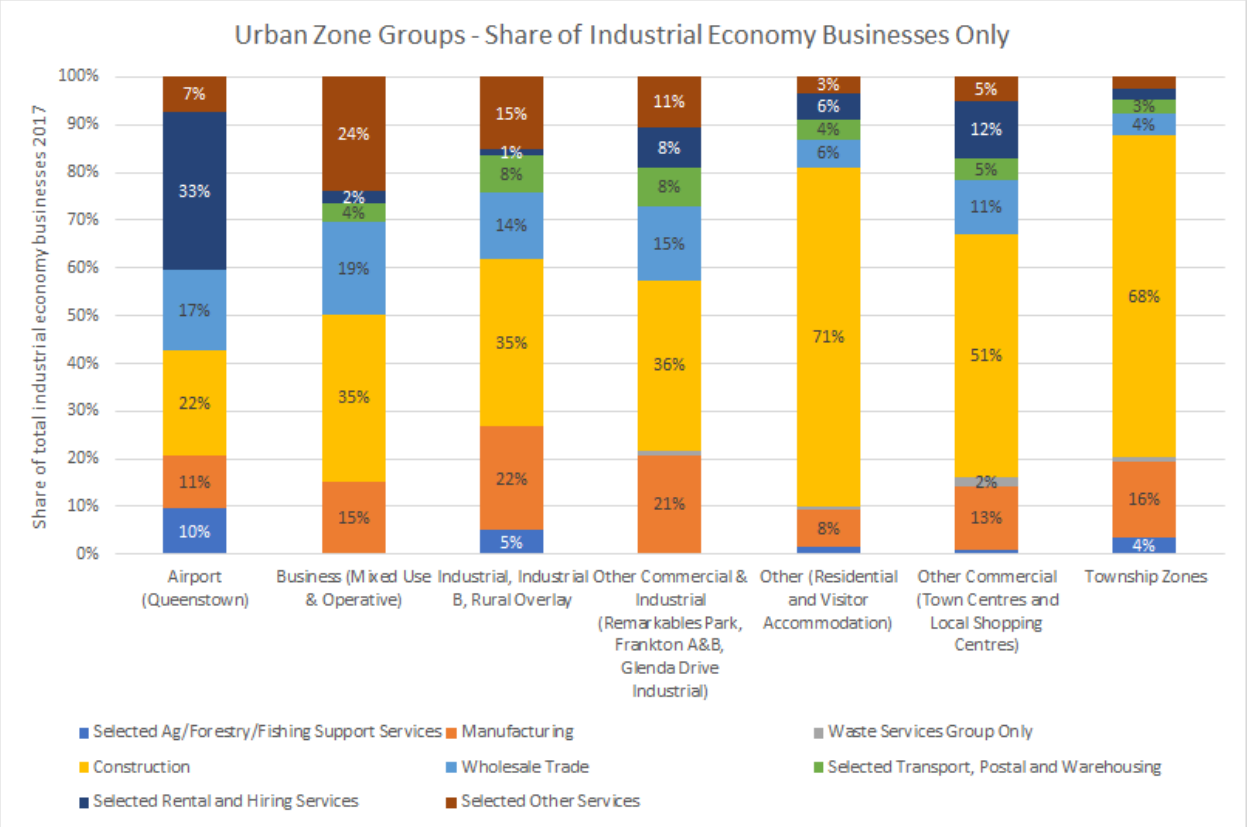
The Industrial group of zones, which includes the Industrial and Industrial B zones with the exception of Glenda Drive (which can't be separated) and includes the small Industrial zone in Luggate, account for just 5% of all urban industrial economy businesses (72). The industrial economy businesses in these meshblock areas account for 42% of all businesses – the highest share of any zone group. This means the role of these zones is more strongly focussed on the industrial economy in relative terms (as is the intent). However, this also means that 58% of businesses in these meshblock (101) areas are not within the industrial economy description (although still may be enabled by the zone provisions).

Similarly, the Other Commercial & Industrial zone group accounts for approximately 8% of all urban industrial economy businesses (126) (mostly expected to capture Frankton Flats B and Glenda Drive Industrial). The share of this zone group that is made up of the industrial economy versus other businesses should not be focussed on, as it includes large commercial areas in Remarkables Park and Frankton Flats generally.

This means that somewhere between approximately 5% and 13% (the exact share is uncertain) of the industrial economy businesses in 2017 fall within Industrial and Industrial B zones[20]. This appears a small share, but the location patterns are relatively easy to explain when considering the various drivers of industrial economy location decisions. This is the component of the industrial economy that a review of industrial zone provisions needs to focus most strongly on (notwithstanding the opportunity for industrial zones to attract a greater share of industrial economy businesses in the future).

Figure 4.3 compares the mix of just industrial economy businesses in each zone group (with other types of businesses excluded). It shows that the profile (mix) of businesses (at the Division level) is not dissimilar between the Industrial group and the Other Commercial & Industrial group. There is a greater share of Rental and Hiring Services, but all three zones in this group are in close proximity to the airport. Importantly, their Manufacturing and Construction role is very similar.

Figure 4.3 – Share of QLD Urban Industrial Economy Businesses by Broad Zone Group (2017)



[20] A very small portion is likely to be attributable to the Luggate Industrial Overlay area included in the urban environment and captured in these zone groups.

By comparison, the dominance of Construction businesses in the Other and Township groups is related to the concentration of residential dwellings (where tradesmen reside). The role of the Other Commercial zone group is still dominated by Construction (potentially more Construction related services or the office activity of Construction businesses). Relative to Industrial zones, the Business zone group excludes Agricultural Support Services activity, and has a greater focus on Wholesale and Other Services activity.

For completeness, Figures 4.4 and 4.5 show the same results for industrial economy employment.

Figure 4.4 – QLD Urban Industrial Economy Employment by Broad Zone Group (2017)

ANZSIC Division	Industrial Economy Selection	Airport (Queenstown)	Business (Mixed Use & Operative)	Industrial, Industrial B, Rural Overlay	Other Commercial & Industrial (Remarkables Park, Frankton A&B, Glenda Drive Industrial)	Other (Residential and Visitor Accommodation)	Other Commercial (Town Centres and Local Shopping Centres)	Township Zones	Total QLD Urban
A	Selected Ag/Forestry/Fishing Support Services	2	-	10	-	47	3	4	66
C	Manufacturing	6	77	57	152	135	232	33	692
D	Waste Services Group Only	-	-	-	19	67	14	1	101
E	Construction	15	174	111	499	1,503	399	171	2,871
F	Wholesale Trade	12	86	49	236	77	61	9	532
I	Selected Transport, Postal and Warehousing	-	36	7	128	75	21	7	273
L	Selected Rental and Hiring Services	79	9	1	115	69	68	8	348
S	Selected Other Services	6	125	53	113	69	48	4	418
QLD Urban Industrial Economy		120	506	288	1,261	2,042	845	238	5,300
Rest of QLD Urban Economy (all other ANZSICs)		972	874	268	1,186	5,421	10,044	260	19,024
Total QLD Urban Economy		1,092	1,380	556	2,447	7,463	10,888	497	24,325
Division Share of Each Zone Group									
A	Selected Ag/Forestry/Fishing Support Services	0%	0%	2%	0%	1%	0%	1%	0%
C	Manufacturing	1%	6%	10%	6%	2%	2%	7%	3%
D	Waste Services Group Only	0%	0%	0%	1%	1%	0%	0%	0%
E	Construction	1%	13%	20%	20%	20%	4%	34%	12%
F	Wholesale Trade	1%	6%	9%	10%	1%	1%	2%	2%
I	Selected Transport, Postal and Warehousing	0%	3%	1%	5%	1%	0%	1%	1%
L	Selected Rental and Hiring Services	7%	1%	0%	5%	1%	1%	2%	1%
S	Selected Other Services	1%	9%	10%	5%	1%	0%	1%	2%
QLD Urban Industrial Economy		11%	37%	52%	52%	27%	8%	48%	22%
Rest of QLD Urban Economy (all other ANZSICs)		89%	63%	48%	48%	73%	92%	52%	78%
Total QLD Urban Economy		100%	100%	100%	100%	100%	100%	100%	100%
Zone Group Share of Each Division									
A	Selected Ag/Forestry/Fishing Support Services	3%	0%	15%	0%	71%	5%	7%	100%
C	Manufacturing	1%	11%	8%	22%	19%	34%	5%	100%
D	Waste Services Group Only	0%	0%	0%	19%	66%	14%	1%	100%
E	Construction	1%	6%	4%	17%	52%	14%	6%	100%
F	Wholesale Trade	2%	16%	9%	44%	15%	11%	2%	100%
I	Selected Transport, Postal and Warehousing	0%	13%	3%	47%	28%	8%	2%	100%
L	Selected Rental and Hiring Services	23%	3%	0%	33%	20%	19%	2%	100%
S	Selected Other Services	1%	30%	13%	27%	17%	11%	1%	100%
QLD Urban Industrial Economy		2%	10%	5%	24%	39%	16%	4%	100%
Rest of QLD Urban Economy (all other ANZSICs)		5%	5%	1%	6%	28%	53%	1%	100%
Total QLD Urban Economy		4%	6%	2%	10%	31%	45%	2%	100%

Source: M.E, Statistics NZ Business Frame 2017. Refer Appendix 10 for detail on zones excluded and spatial extent in meshblock terms.

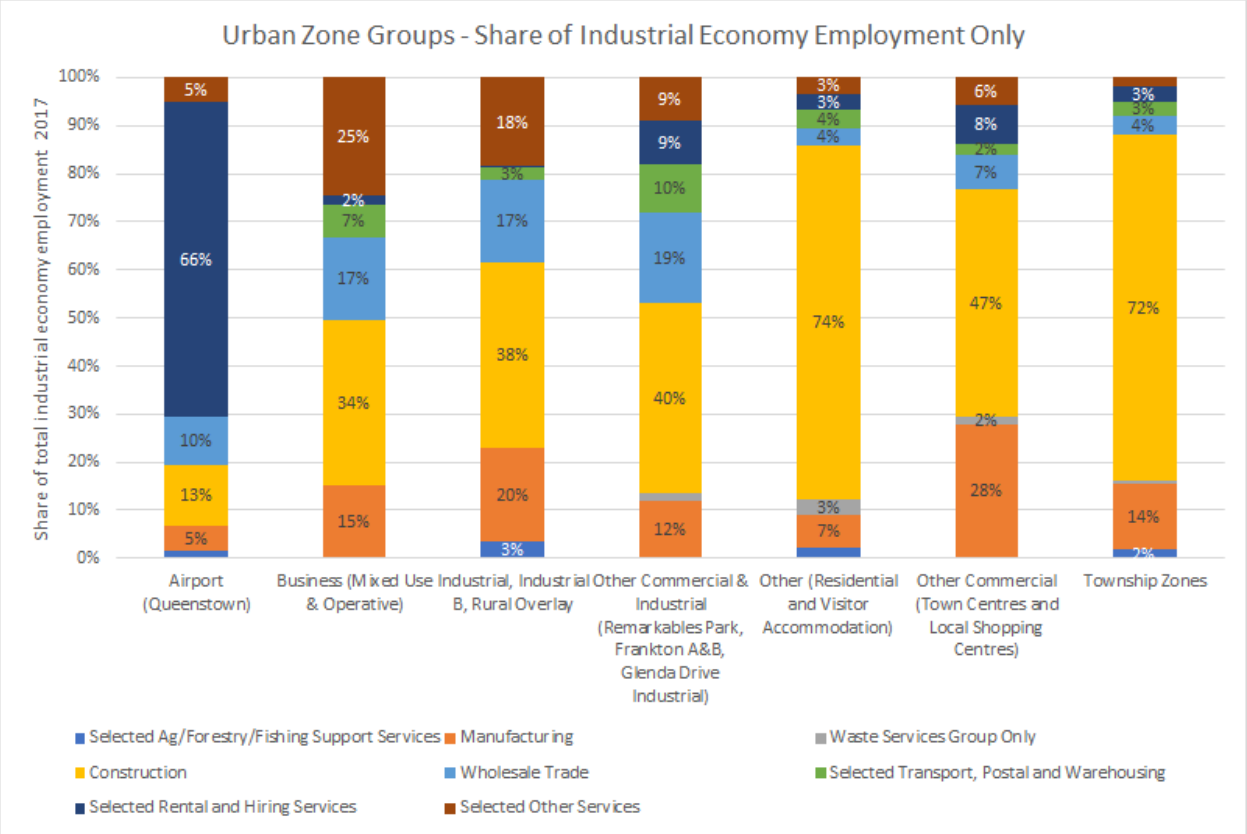
Key features:

- The Other zone group (residential zones) accounts for a much lower share of urban industrial economy employment (39% or approximately 2,040 workers) than it does businesses (57%). This confirms the very small scale of these businesses, including sole traders in the Construction sector. The same applies to the Township zone group (4% of employment compared to 9% of businesses).

- The Business zones group accounts for 10% of urban industrial economy employment (506 workers). This includes 11% of urban Manufacturing employment and 16% of Wholesale employment and 30% of Selected Other Services employment.
- The Industrial zone group captures 5% of urban industrial economy employment, the same share as it captures of industrial economy businesses. This includes 8% of urban Manufacturing employment, 9% of Wholesale Trade employment and 13% of Selected Other Services employment.
- Interestingly, the Other Commercial & Industrial zone group (which includes Glenda Drive and Frankton Flats in addition to Remarkables Park) captures 24% of urban industrial economy employment, compared to just 8% of businesses. This is a total of approximately 1,260 workers. This highlights that these businesses have a larger average size (and compared with other Industrial zones in the district). It is not clear from this Business Directory data, exactly what role the Industrial zone (Glenda Drive) has in this share.

The key features of Figure 4.5, relative to Figure 4.3, are that the profile of employment is broadly similar to the profile of businesses in each zone group. The key exceptions are the Airport Zone in Queenstown. While Rental and Hiring Services makes up 33% of businesses in that zone, it accounts for 66% of employment (meaning the businesses are larger relative to the others in the industrial economy in that area). Also, it is worth pointing out that the share of employment in the Industrial zone group in the Transport, Postal and Warehousing Division is just 3% compared to 8% of businesses. This is driven by storage companies, which have very low levels of staff.

Figure 4.5 – Share of QLD Urban Industrial Economy Employment by Broad Zone Group (2017)



4.3.1 Current Propensity to Locate in an Urban Industrial Zone

We have attempted to categories ANZSICs within the industrial economy based on their current propensity to choose an Industrial Zone in the urban environment compared to other zones in the urban environment (including non-business zones). These results are indicative only, and may look different if revisited in the future, particularly with the prospect of two greenfield industrial zones coming on stream at some time (Coneburn and the Ballantyne Road Mixed Use Zone).

The purpose of this analysis is to help guide the review process in terms of what ANZSICs most need to be provided for (accepting that the district plan is activity focussed not business classification focussed) because they currently don't appear to locate anywhere else in the urban environment (for various reasons) or have demonstrated a moderate to high preference for industrial zones.

Care is needed as every business is unique in its operation. Within each category (High, Moderate-High and Moderate propensity for an industrial zone location) there are some ANZSICs that have a higher and lower propensity than the category average. Nor should this analysis be used in any way to necessarily exclude any industrial economy business from industrial zones just because they have demonstrated little or no propensity at present. Depending on their scale, some businesses may be beneficial to 'direct' or 'attract' to industrial zones rather than other zones.

Figure 4.6 – Industries Demonstrating a High Preference for Urban Industrial Zones (2017)

QLD Industrial Economy	ANZSIC	Division	Urban Industrial Zone Propensity 2017	Count of Urban Businesses	Share of Urban Businesses
Industrial - Aluminium Rolling, Drawing, Extruding	C214200	C	High	1	0%
Industrial - Other Sheet Metal Product Manufacturing	C224000	C	High	1	0%
Industrial - Other Specialised Machinery and Equipment Manufacturing	C246900	C	High	1	0%
Industrial - Structural Steel Fabricating	C222100	C	High	2	0%
Industrial - Car Wholesaling	F350100	F	High	1	0%
Industrial - Dairy Produce Wholesaling	F360300	F	High	2	0%
Industrial - Metal and Mineral Wholesaling	F332200	F	High	2	0%
Industrial - Motor Vehicle Dismantling and Used Part Wholesaling	F350500	F	High	1	0%
Industrial - Other Specialised Industrial Machinery and Equipment Wholesaling	F341900	F	High	1	0%
Sub-Total				13	1%

Source: M.E, Statistics NZ Business Directory.

Figure 4.7 – Industries Demonstrating a Moderate-High Preference for Urban Ind. Zones (2017)

QLD Industrial Economy	ANZSIC	Division	Urban Industrial Zone Propensity 2017	Count of Urban Businesses	Share of Urban Businesses
Industrial - Metal Roof and Guttering Manufacturing (except Aluminium)	C222400	C	Moderate-High	4	0%
Industrial - Other Wood Product Manufacturing n.e.c.	C149900	C	Moderate-High	3	0%
Industrial - Motor Vehicle New Part Wholesaling	F350400	F	Moderate-High	3	0%
Sub-Total				10	1%

Figure 4.8 – Industries Demonstrating a Moderate Preference for Urban Industrial Zones (2017)

QLD Industrial Economy	ANZSIC	Division	Urban Industrial Zone Propensity 2017	Count of Urban Businesses	Share of Urban Businesses
Industrial - Boatbuilding and Repair Services	C239200	C	Moderate	2	0%
Industrial - Clothing Manufacturing	C135100	C	Moderate	3	0%
Industrial - Concrete Product Manufacturing	C203400	C	Moderate	4	0%
Industrial - Other Fabricated Metal Product Manufacturing n.e.c.	C229900	C	Moderate	5	0%
Industrial - Other Furniture Manufacturing	C251900	C	Moderate	2	0%
Industrial - Textile Finishing and Other Textile Product Manufacturing	C133400	C	Moderate	2	0%
Industrial - Wooden Structural Fittings and Components Manufacturing	C149200	C	Moderate	5	0%
Industrial - Industrial and Agricultural Chemical Product Wholesaling	F332300	F	Moderate	2	0%
Industrial - Interurban and Rural Bus Transport	I462100	I	Moderate	2	0%
Industrial - Heavy Machinery and Scaffolding Rental and Hiring	L663100	L	Moderate	2	0%
Industrial - Automotive Electrical Services	S941100	S	Moderate	4	0%
Sub-Total				33	2%

Source: M.E, Statistics NZ Business Directory.

Appendix 11 lists the ANZSICs that have a lower propensity to locate in today's urban industrial zones (when considered as a group, not the individual business level). These businesses have not demonstrated a functional or operational need to locate in an industrial zone. They may be office-based businesses for example, that can locate in a range of other urban business zones. They may be service based businesses that can locate in the Business Mixed Use Zone. They may have a functional or operational need to be in an Airport zone. Alternatively, they may be very small-scale and can operate as home-occupation businesses, or simply have no physical premises requirements, such as tradesmen.

4.4 Stage 3 Review Industrial/Business Zones

This section focusses on what data is able to be analysed for the specific zones of interest for the Stage 3 review. These are the Industrial, Industrial B and Business (Operative) zones. While the Ballantyne Road Mixed Use Zone is also of interest, it is currently vacant. The analysis draws on the Business Directory data (as described above) which is limited to whole meshblocks. These limitations are described in more detail for each zone below. Despite the limitations, the conclusions are considered sufficiently reliable for the purpose of comparing the zones against each other as the industrial zones account for major share of industrial economy businesses and employment (which is the key focus). This section also draws on Council's own field data for each zone. Both datasets have different strengths so complement each other.

4.4.1 Arrowtown Industrial Zone

Figure 4.9 – Meshblock Boundaries and District Plan Zone Extent – Arrowtown Industrial

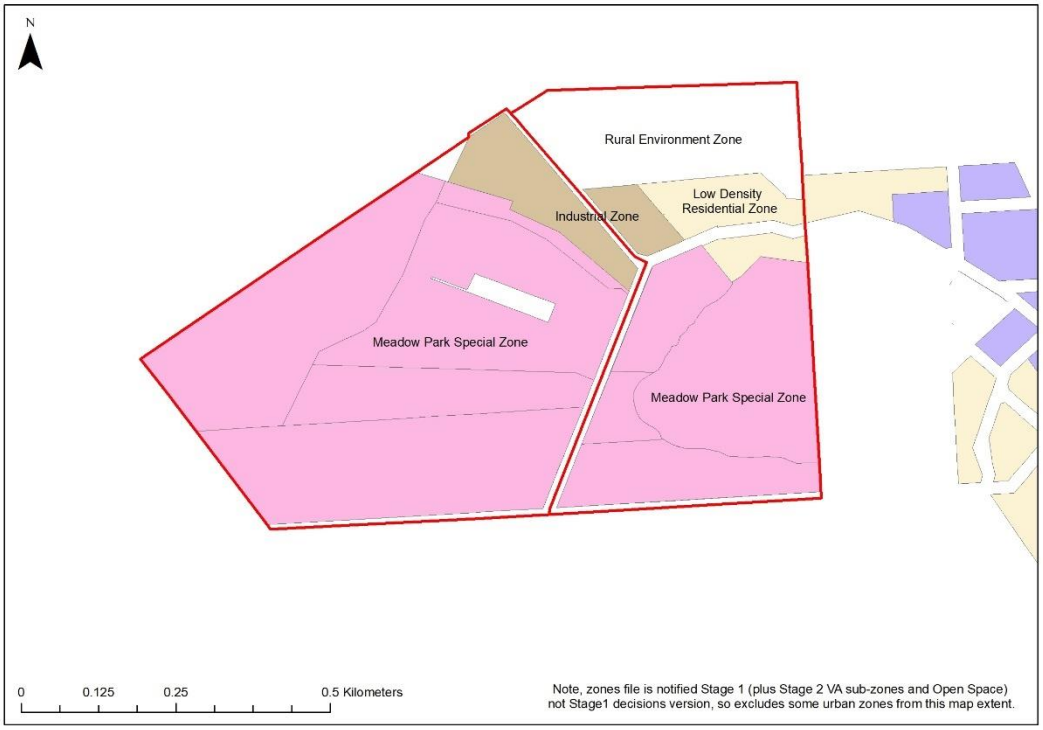


Figure 4.9 shows a map that compares the meshblock extent that has been used to represent economic activity using Business Directory data in the Arrowtown Industrial Zone, relative to underlying zone boundaries. Note, the zoning file is from the notified Stage 1 PDP[21] and not the Stage 1 decisions version, so some minor variations may exist. In order to capture the Industrial zone, the Business Directory analysis also picks up the Meadow Park Special Zone (residential) and the Low Density Residential Zone. This means that the data will include industrial economy businesses that may be 'home-based' and not within the actual Industrial zone.

Figure 4.10 shows that the Arrowtown Industrial zone (and immediate surrounding zone areas) contain 41 businesses (2017) of which 15 are included in the identified industrial economy (spread over 11 different ANZSIC types). The industrial economy share of total businesses in the area captured is therefore 37%. However, the industrial economy share of total employment is 63%, with 54 workers. This gives an average business size for industrial economy businesses of 3.5 (2017).

Construction related businesses account for 30% of total industrial economy businesses and 40% of employment. This is followed by Wholesale Trade businesses (18% of businesses and 33% of employment – these have the biggest average business size at around 6 workers).

[21] Also includes notified Stage 2 visitor accommodation sub-zones and open space.

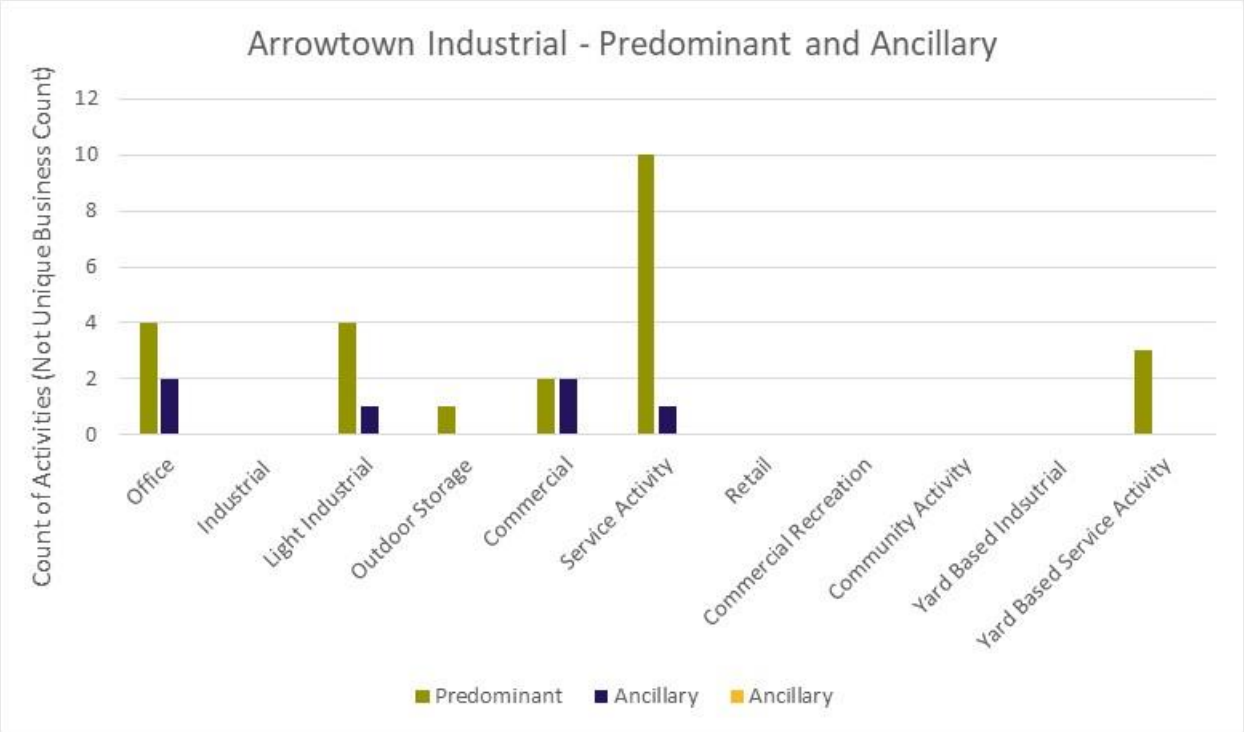
Figure 4.10 – Industrial Economy Activity in Approximate Arrowtown Industrial Zone (2017)

ANZSIC Division	Industrial Economy Selection	Business Count (n)	Share of IE Businesses (%)	Share of All Businesses (%)	Employment Count (n)	Share of IE Employment (%)	Share of All Employment (%)	Average Business Size (MECs)
A	Selected Ag/Forestry/Fishing Support Services	3	17%	6%	4	7%	4%	1.4
C	Manufacturing	1	8%	3%	3	5%	3%	2.3
D	Waste Services Group Only	-	0%	0%	-	0%	0%	-
E	Construction	5	30%	11%	21	40%	25%	4.7
F	Wholesale Trade	3	18%	7%	18	33%	21%	6.6
I	Selected Transport, Postal and Warehousing	3	17%	6%	3	5%	3%	1.0
L	Selected Rental and Hiring Services	-	0%	0%	-	0%	0%	-
S	Selected Other Services	2	11%	4%	6	10%	7%	3.5
QLD Industrial Economy		15	100%	37%	54	100%	63%	3.5
Rest of QLD Economy (all other ANZSICs)		26		63%	32		37%	1.2
Total QLD Economy		41		100%	86		100%	2.1

Source: M.E, Statistics NZ Business Frame 2017. Meshblock extent includes areas of adjacent district plan zones - data not limited to Industrial A zone.

Figure 4.11 summarises actual counts of all activities within the extent of the Arrowtown Industrial zone (based on Council field survey data). This is not limited to industrial activities. Activities are described according the definitions in the Stage 1 decisions version district plan. The counts shown in the graph do not sum to the total business count, as up to two ancillary activities are also identified, although the predominant activity is representative of total businesses. It shows that the zone includes 24 businesses at present, with 6 of these including an ancillary activity. The most common (predominant) activity is defined as Service Activities. There are 10 of these businesses. Light Industrial, Office, Outdoor Storage, Commercial and Yard Based Service activities are also present.

Figure 4.11 – Activities by District Plan Category (2019) – Arrowtown Industrial Zone



4.4.2 Glenda Drive Industrial

Figure 4.12 shows a map that compares the meshblock extent that has been used to represent economic activity using Business Directory data in the Glenda Drive Industrial Zone, relative to underlying zone boundaries. Unfortunately, in order to capture the Industrial zone, the Business Directory analysis also picks up extensive areas of the Remarkables Park Zone, all of the Frankton Flats A zone and all of the Frankton Flats B Zone (due to 2013 meshblock boundaries). This means that the data will include industrial economy businesses that may be located in any of those zones. On the other hand, Frankton Flats A and Remarkables Park are highly retail and recreation focussed. The Frankton Flats B zone includes some industrial precincts and more flexible mixed commercial/light industrial zones. To the extent that these businesses were present in February 2017 (the snapshot of the Business Directory), Frankton Flats B in particular will be skewing the data.

Figure 4.12 – Meshblock Boundaries and District Plan Zone Extent – Glenda Drive Industrial

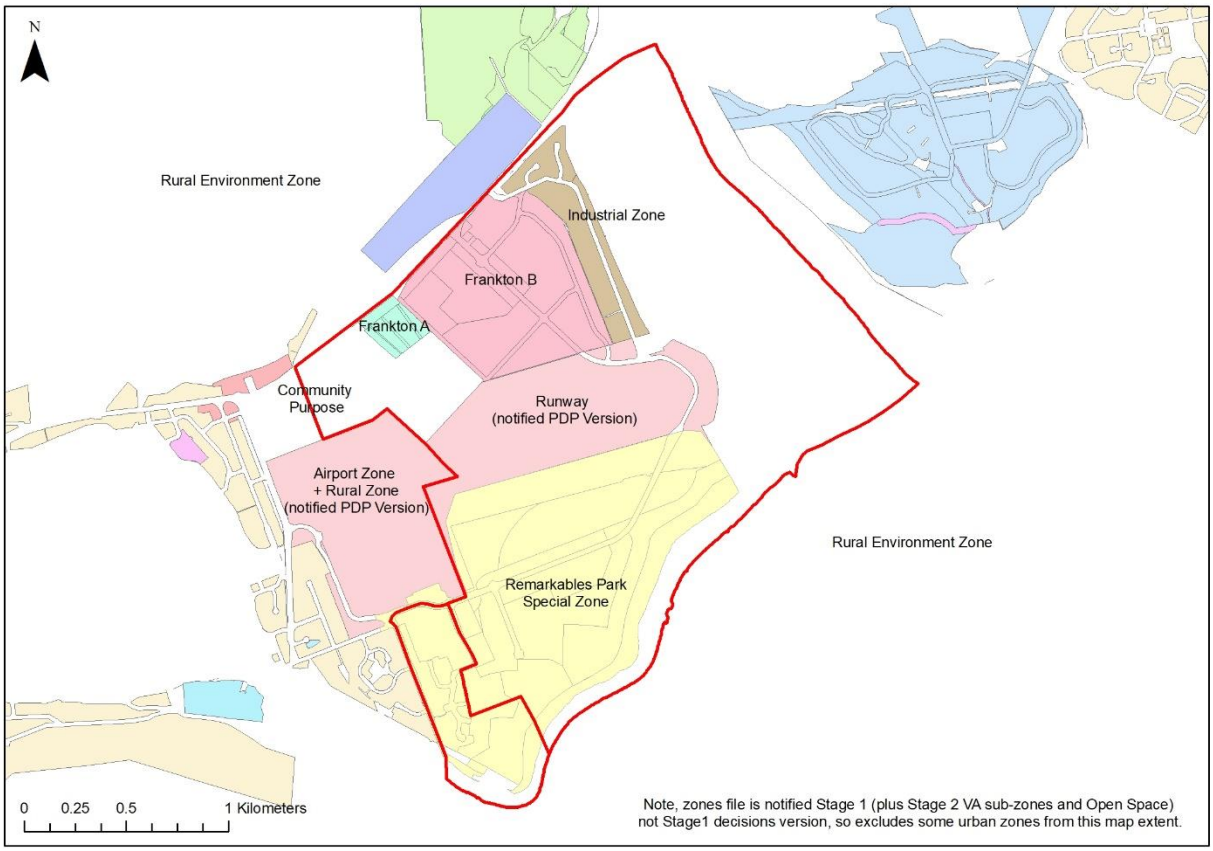


Figure 4.13 shows that the Glenda Drive Industrial zone (and immediate surrounding zone areas) contain 314 businesses (2017) of which 124 are included in the identified industrial economy (spread over 62 different ANZSIC types). The industrial economy share of total businesses in the area captured is therefore 39% but not representative of just the Industrial zone. The industrial economy share of total employment is 52%, with 1,261 workers (again this percentage should be viewed with caution). This gives an average

business size for industrial economy businesses of 10 workers each (2017). This is the highest for any of the zones examined.

Construction related businesses account for 36% of total industrial economy businesses and 40% of employment (these have an average business size of approximately 11 workers each). This is followed by Manufacturing businesses (21% of businesses and 12% of employment). The single Waste Services business has 19 staff according to the Business Directory. Both Wholesaling and Transport, Postal and Warehousing businesses in this area have an average business size of 12 workers each. Overall, the Glenda Drive Industrial Zone (or wider Frankton area) supports the largest businesses in the industrial economy.

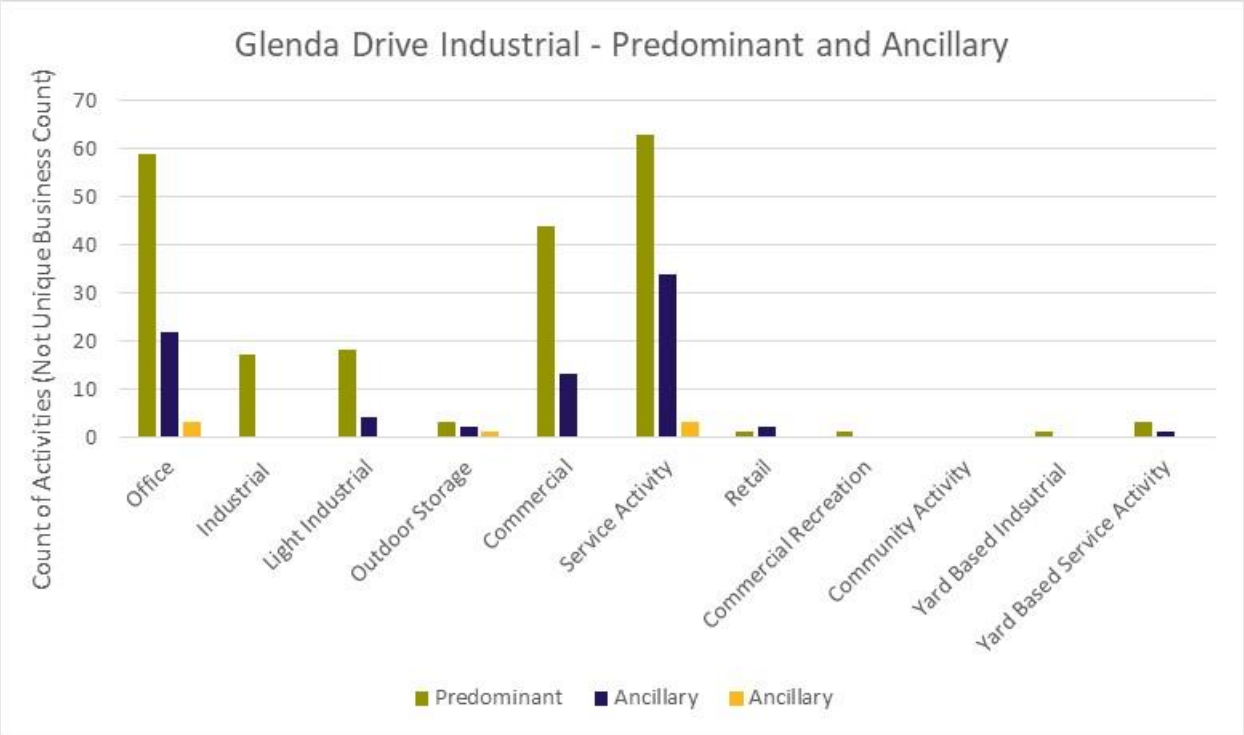
Figure 4.13 – Industrial Economy Activity in Approximate Glenda Drive Industrial Zone (2017)

ANZSIC Division	Industrial Economy Selection	Business Count (n)	Share of IE Businesses (%)	Share of All Businesses (%)	Employment Count (n)	Share of IE Employment (%)	Share of All Employment (%)	Average Business Size (MECs)
A	Selected Ag/Forestry/Fishing Support Services	-	0%	0%	-	0%	0%	-
C	Manufacturing	26	21%	8%	152	12%	6%	5.9
D	Waste Services Group Only	1	1%	0%	19	1%	1%	18.8
E	Construction	45	36%	14%	499	40%	20%	11.1
F	Wholesale Trade	19	15%	6%	236	19%	10%	12.4
I	Selected Transport, Postal and Warehousing	10	8%	3%	128	10%	5%	12.8
L	Selected Rental and Hiring Services	10	8%	3%	115	9%	5%	11.5
S	Selected Other Services	13	10%	4%	113	9%	5%	8.7
QLD Industrial Economy		124	100%	39%	1,261	100%	52%	10.2
Rest of QLD Economy (all other ANZSICs)		190		61%	1,186		48%	6.2
Total QLD Economy		314		100%	2,447		100%	7.8

Source: M.E, Statistics NZ Business Frame 2017. Meshblock extent includes areas of adjacent district plan zones - data not limited to Industrial A zone.

Figure 4.14 summarises actual counts of all activities within the extent of the Glenda Drive Industrial zone (based on Council field survey data). It shows that the zone includes 210 businesses at present, with 78 of these including one ancillary activity and 7 of those containing a second ancillary activity. The most common (predominant) activity is defined as Service Activities. There are 63 of these businesses. The only business types not present in the zone include Yard Based Storage and Community Activities. Commercial activities are common (44 businesses) as are Office activities (59 businesses). Offices are also a significant ancillary activity. For 34 businesses, the Service Activity was the ancillary activity not the predominant role of the business.

Figure 4.14 – Activities by District Plan Category (2019) – Glenda Drive Industrial Zone



4.4.3 Wanaka Industrial

Figure 4.15 shows a map that compares the meshblock extent that has been used to represent economic activity using Business Directory data in the Wanaka Industrial zones, relative to underlying zone boundaries. Unfortunately, in order to capture the Industrial zone, the Business Directory analysis also picks up the Industrial B Zone, so these cannot be analysed separately. It also picks up extensive areas of the Plan Change 46 Zone, Low and Medium Density residential zones, Large Lot A residential zone and the Local Shopping Centre zone. This means that the data will include industrial economy businesses that may be located in any of those zones. However, much of this other zone area is vacant land or residential. The medical centre is the most obvious commercial activity. Any additional industrial economy businesses captured are therefore likely to be home-based businesses.

Figure 4.16 shows that the combined Wanaka Industrial zones (and immediate surrounding zone areas) contain 126 businesses (2017) of which 52 are included in the identified industrial economy (spread over 41 different ANZSIC types). The industrial economy share of total businesses in the area captured is therefore 41% but not representative of just the Industrial zones. The industrial economy share of total employment is 48%, with 218 workers (again this percentage should be viewed with caution). This gives an average business size for industrial economy businesses of 4 workers each (2017).

Figure 4.15 – Meshblock Boundaries and District Plan Zone Extent – Wanaka Ind. and Ind. B

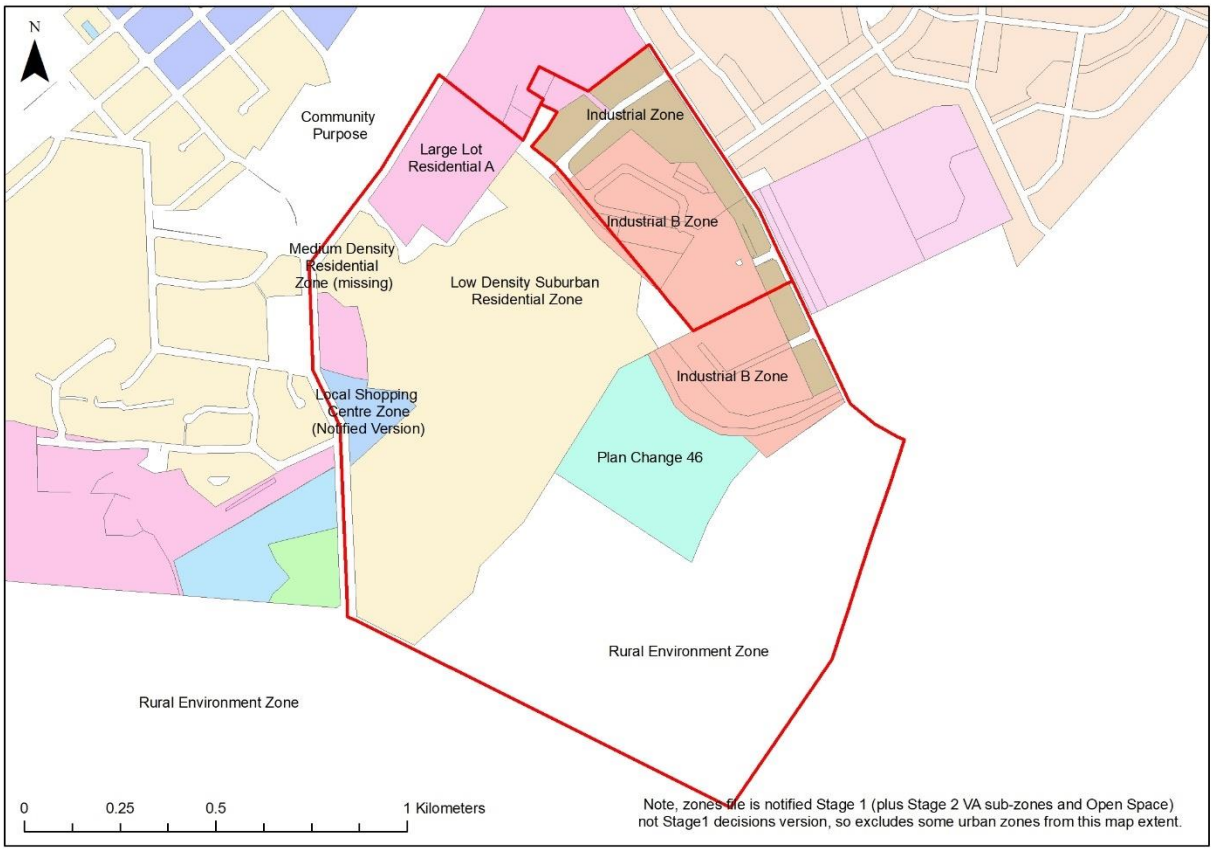


Figure 4.16 – Industrial Economy Activity in Approximate Wanaka Ind. & Ind. B Zone (2017)

ANZSIC Division	Industrial Economy Selection	Business Count (n)	Share of IE Businesses (%)	Share of All Businesses (%)	Employment Count (n)	Share of IE Employment (%)	Share of All Employment (%)	Average Business Size (MECs)
A	Selected Ag/Forestry/Fishing Support Services	-	0%	0%	-	0%	0%	-
C	Manufacturing	13	25%	10%	48	22%	11%	3.7
D	Waste Services Group Only	-	0%	0%	-	0%	0%	-
E	Construction	20	38%	16%	87	40%	19%	4.3
F	Wholesale Trade	7	13%	6%	32	14%	7%	4.5
I	Selected Transport, Postal and Warehousing	3	6%	2%	5	2%	1%	1.6
L	Selected Rental and Hiring Services	1	2%	1%	1	1%	0%	1.1
S	Selected Other Services	8	15%	6%	46	21%	10%	5.7
QLD Industrial Economy		52	100%	41%	218	100%	48%	4.2
Rest of QLD Economy (all other ANZSICs)		74		59%	235		52%	3.2
Total QLD Economy		126		100%	453		100%	3.6

Source: M.E, Statistics NZ Business Frame 2017. Meshblock extent includes areas of adjacent district plan zones - data not limited to Industrial A and B zone.

Construction related businesses account for 38% of total industrial economy businesses and 40% of employment (these have an average business size of approximately 4 workers each). This is followed by Manufacturing businesses (25% of businesses and 22% of employment). Selected Other Services make up

5% of industrial economy businesses (8 as at 2017) and 21% of employment – giving a slightly above average size of nearly 6 workers each.

Figure 4.17 summarises actual counts of all activities within the extent of the Wanaka Industrial zone (based on Council field survey data). It shows that the zone includes 77 businesses at present, with 28 of these including one ancillary activity and 5 of those containing a second ancillary activity. The most common (predominant) activity is defined as Service Activities. There are 23 of these businesses. The only business types not present in the zone (but enabled) are Service Stations and Yard Based Storage. Commercial and Retail activities are few (6 businesses combined). Office activities are common (16 businesses) as are Light Industrial activities (18 businesses). Offices and Commercial activities are the most common ancillary activities.

Figure 4.17 – Activities by District Plan Category (2019) – Wanaka Industrial Zone

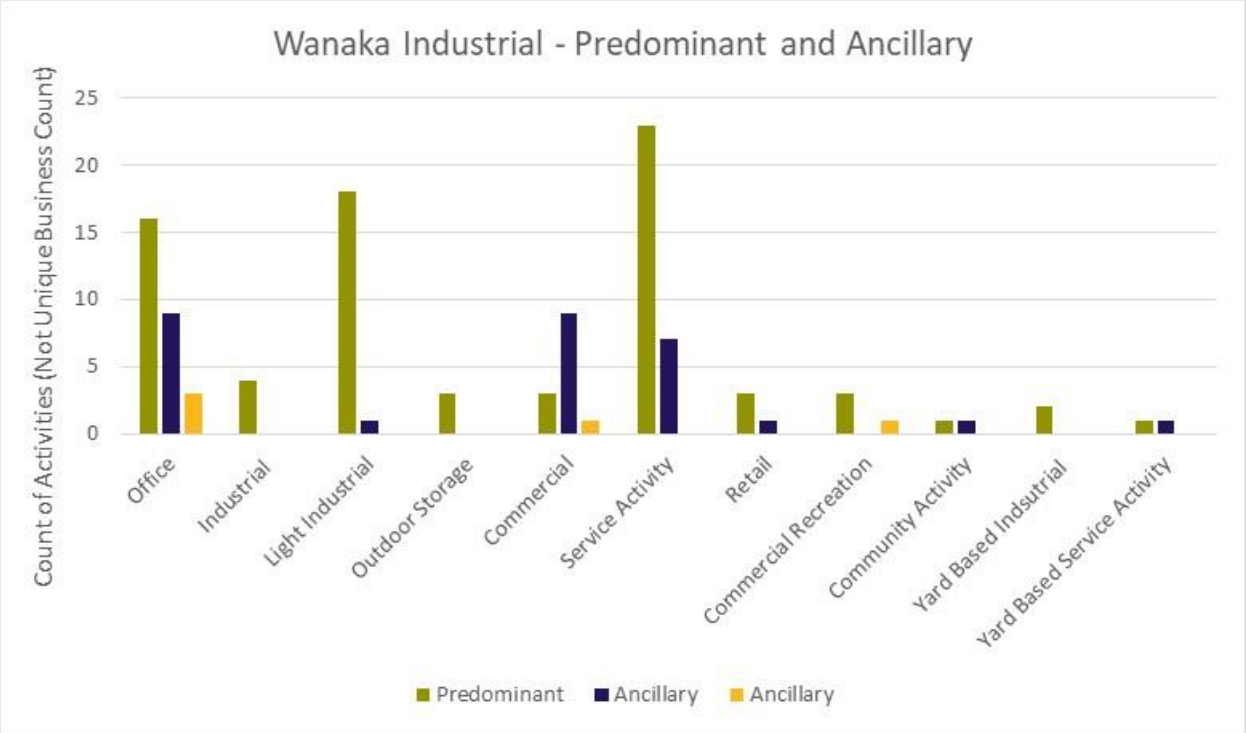
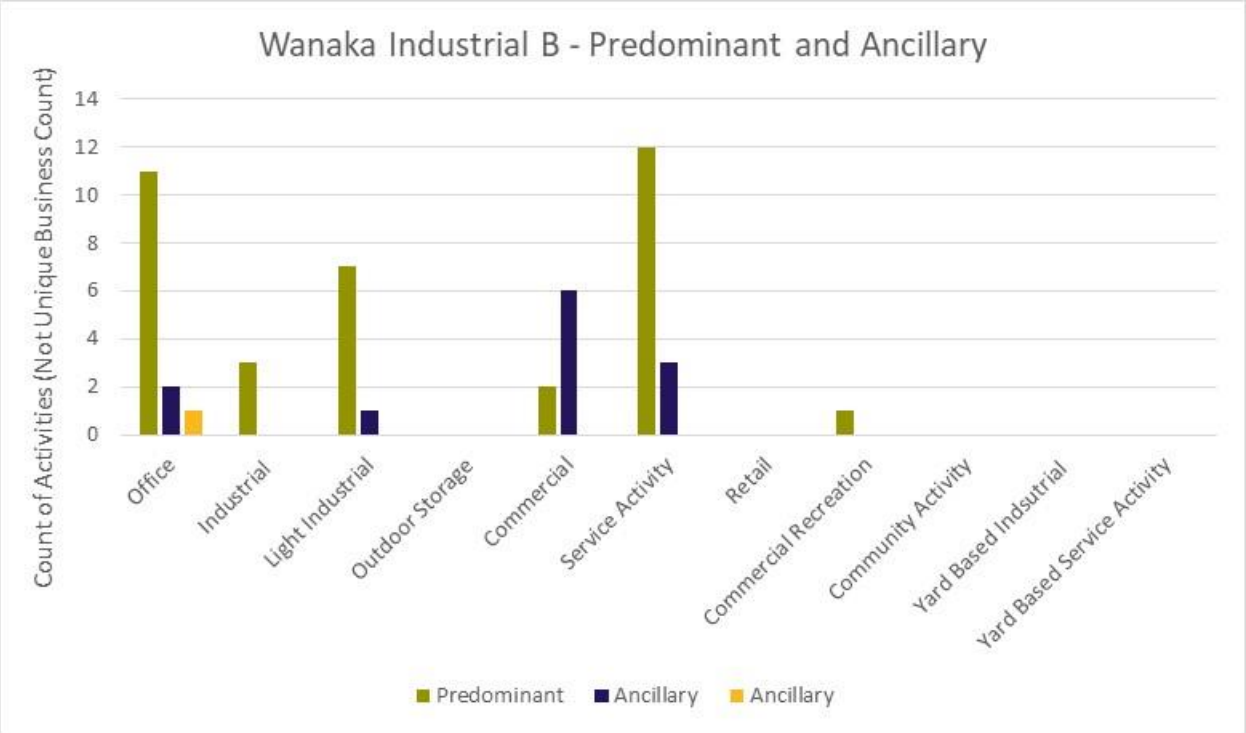


Figure 4.18 summarises actual counts of all activities within the extent of the Wanaka Industrial B zone (based on Council field survey data). For the purpose of this analysis, we have categorised activities according to the categories enabled in the Industrial zone and not those specifically identified for the Industrial B zone (for better comparability). It shows that the zone includes 33 businesses at present, with 12 of these including one ancillary activity and 1 of those containing a second ancillary activity. The most common (predominant) activity is defined as Service Activities and Office activities. There are 11 of these businesses each. There are no yard-based activities or outdoor storage. Retail and Commercial activities have also not occurred. Light Industrial activities are slightly less common (7 businesses). Commercial activities are the most common ancillary activity.

Figure 4.18 – Activities by District Plan Category (2019) – Wanaka Industrial B Zone

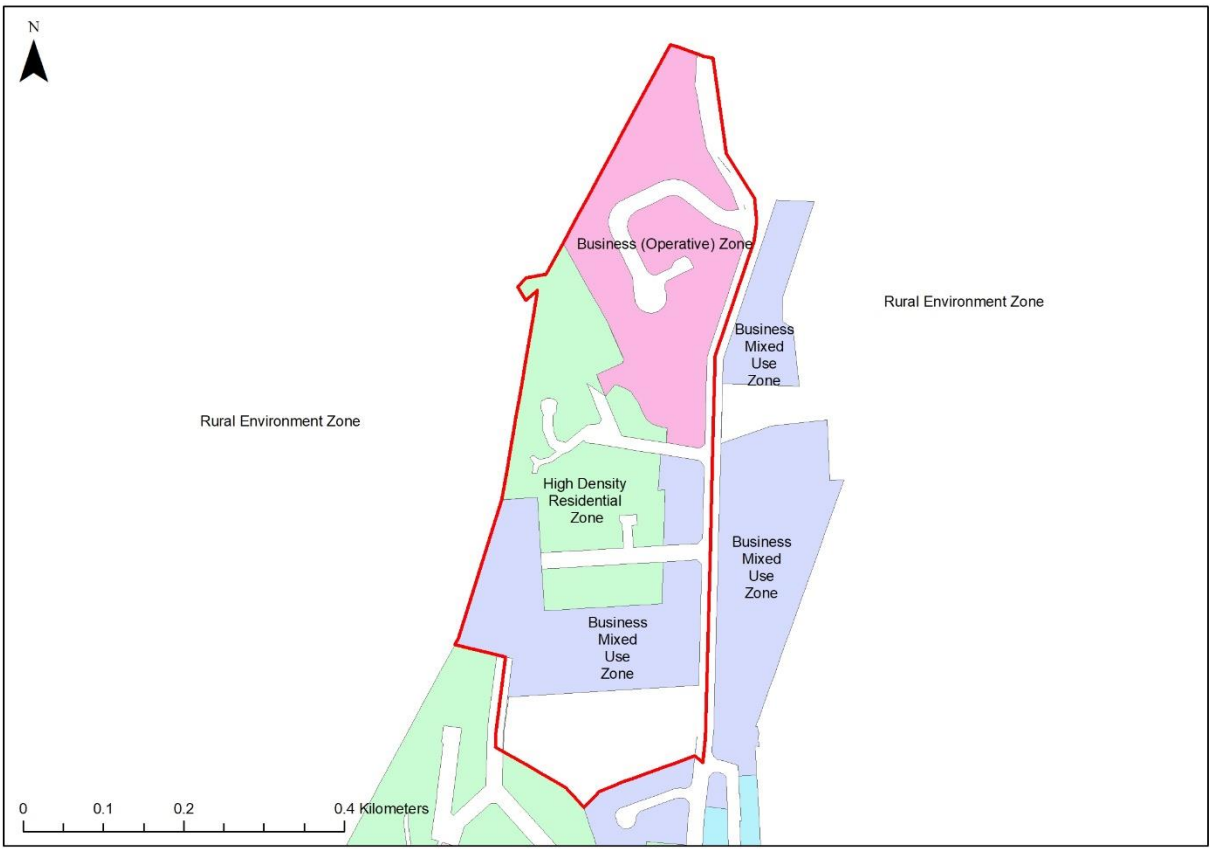


4.4.4 Gorge Road Business (Operative)

Figure 4.19 shows a map that compares the meshblock extent that has been used to represent economic activity using Business Directory data in the Gorge Road Business (Operative) Zone, relative to underlying zone boundaries. In order to capture the Business zone, the Business Directory analysis also picks up the High Density Residential Zone to the south and an area of the Business Mixed Use Zone. This means that the data will include industrial economy businesses that may be 'home-based' or in the Business Mixed Use Zone and not within the actual operative Business zone.

Figure 4.20 shows that the Business (Operative) zone (and immediate surrounding zone areas) contains 89 businesses (2017) of which 38 are included in the identified industrial economy (spread over 22 different ANZSIC types). The industrial economy share of total businesses in the area captured is therefore 43% but not representative of just the Operative Business Zone. The industrial economy share of total employment is 32%, with 204 workers (again this percentage should be viewed with caution). This gives an average business size for industrial economy businesses of 5 workers each (2017).

Figure 4.19 – Meshblock Boundaries and District Plan Zone Extent – Gorge Rd Business



Construction related businesses account for 39% of total industrial economy businesses and 46% of employment (these have an average business size of approximately 6 workers each). This is followed by Selected Other Service businesses (29% of businesses and 31% of employment). Manufacturing make up 16% of industrial economy businesses (6 as at 2017) and 9% of employment – giving a below average size of 3 workers each compared to other Divisions.

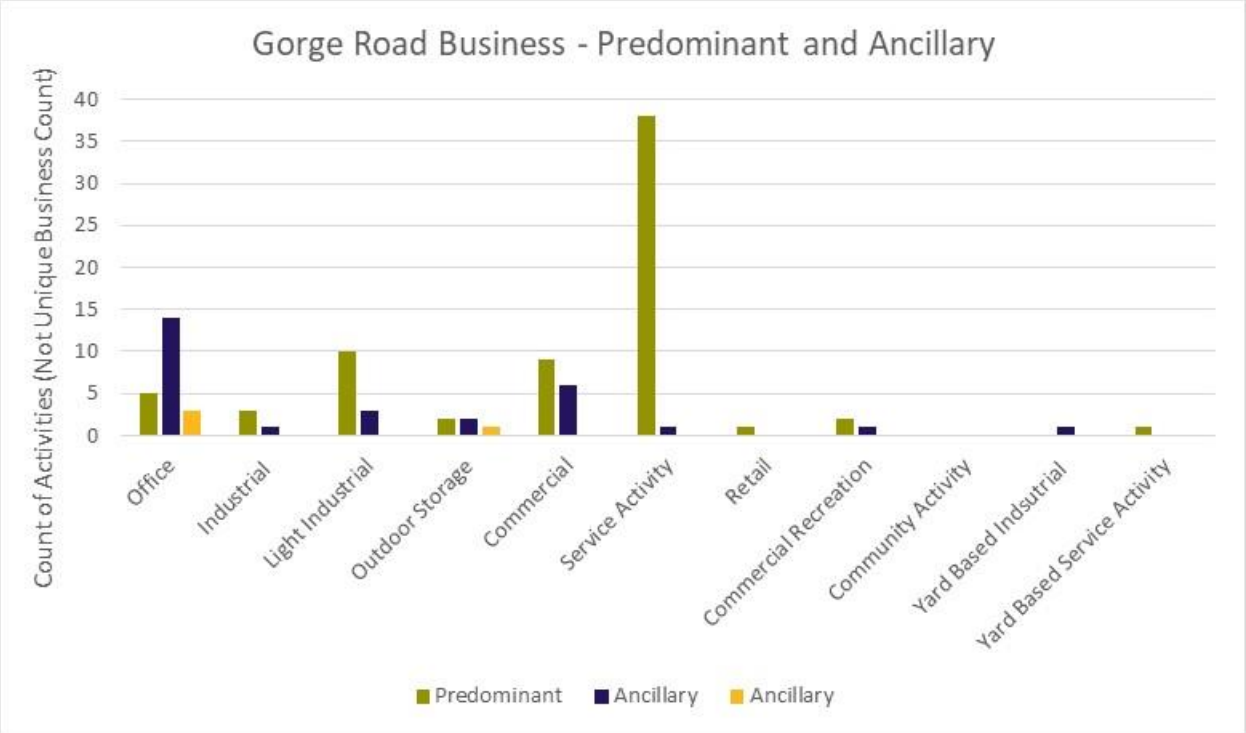
Figure 4.20 – Industrial Economy Activity in Approximate Gorge Rd Business Zone (2017)

ANZSIC Division	Industrial Economy Selection	Business Count (n)	Share of IE Businesses (%)	Share of All Businesses (%)	Employment Count (n)	Share of IE Employment (%)	Share of All Employment (%)	Average Business Size (MECs)
A	Selected Ag/Forestry/Fishing Support Services	-	0%	0%	-	0%	0%	-
C	Manufacturing	6	16%	7%	18	9%	3%	3.0
D	Waste Services Group Only	-	0%	0%	-	0%	0%	-
E	Construction	15	39%	17%	94	46%	15%	6.3
F	Wholesale Trade	5	13%	6%	21	11%	3%	4.3
I	Selected Transport, Postal and Warehousing	1	3%	1%	7	3%	1%	6.5
L	Selected Rental and Hiring Services	-	0%	0%	-	0%	0%	-
S	Selected Other Services	11	29%	12%	64	31%	10%	5.8
QLD Industrial Economy		38	100%	43%	204	100%	32%	5.4
Rest of QLD Economy (all other ANZSICs)		51		57%	441		68%	8.6
Total QLD Economy		89		100%	644		100%	7.2

Source: M.E, Statistics NZ Business Frame 2017. Meshblock extent includes areas of adjacent district plan zones - data not limited to Business (Operative) zone.

Figure 4.21 summarises actual counts of all activities within the extent of the Gorge Road Business (Operative) zone (based on Council field survey data). For the purpose of this analysis, activities were categorised according to the categories enabled in the Industrial zone (for comparability). It shows that the zone includes 77 businesses at present, with 29 of these including one ancillary activity and 4 of those containing a second ancillary activity. The most common (predominant) activity is defined as Service Activities. There are 38 of these businesses. There are no yard-based storage activities but there are two outdoor storage businesses and one yard based service activity. Light Industrial activities are the next most common (10 businesses), followed by Commercial activities (9 businesses). Office activities are the most common ancillary activity.

Figure 4.21 – Activities by District Plan Category (2019) – Gorge Road Business Zone



4.5 Industrial Zone Profile Comparison

This section provides a comparison of the five zones using both available datasets. This is relevant to understand what makes the zones similar and what makes them different.

Figures 4.22 and 4.23 compare the zones in terms of the count and share of 2017 businesses included in the description of the industrial economy (not all businesses in the zone). As discussed above, the Business Directory data is not limited just to the zone extents, so is indicative. The data is summarised by ANZSIC Division.

Figure 4.22 highlights the larger number of industrial economy businesses in the Glenda Drive Industrial area (this is likely to overestimate the actual count to some degree). The small size of the Arrowtown Industrial zone is also apparent (and consistent with its relatively small area in hectares). Figure 4.23 provides a more direct comparison of their respective mix of industrial economy (but not all businesses)

businesses using a percentage distribution. Their industrial economy business structure is very similar – especially between the Gorge Road Business zone, combined Wanaka Industrial zones and Glenda Drive Industrial zone. The Arrowtown Industrial zone is more unique in that it has a greater focus on Agricultural Support Services, a lesser focus on Manufacturing and a higher relative focus on Transport, Postal and Warehouse industries. It is relevant to consider though that a physically small zone will struggle to support a diverse range of businesses – had it been able to include more businesses, it's profile might have shifted slightly and would be expected to be closer to the average of other zones.

Figures 4.24 and 4.25 also provide a comparison of total businesses within the specific zone areas using Council's data. This data is more current and shows the total mix of predominant activities using District Plan terminology. As with the Business Directory comparison, Figure 4.24 shows the much larger overall size of the Glenda Drive Industrial zone. It has a considerable count of businesses in both Commercial and Office activities that has not occurred in the other zones, despite the same zoning in both Wanaka and Arrowtown. It also sustains more Industrial activities than seen elsewhere.

Figure 4.25 provides the more direct comparison (in percentage terms), removing the effect of size. As per the Business Directory analysis, it confirms a very similar profile across all zones. The Gorge Road Business zone is slightly more oriented towards Service Activities and slightly less to office and light industrial activities, otherwise is a close match. The Wanaka Industrial and Industrial B zones are also very similar for the main business types when compared using consistent categories. The only main difference in the Arrowtown Industrial zone is the higher share of yard-based service activities. Again, the Commercial component of Glenda Drive also sounds out.

Figure 4.22 – Comparison Using Business Directory Meshblock Data (2017) – IE Business Count

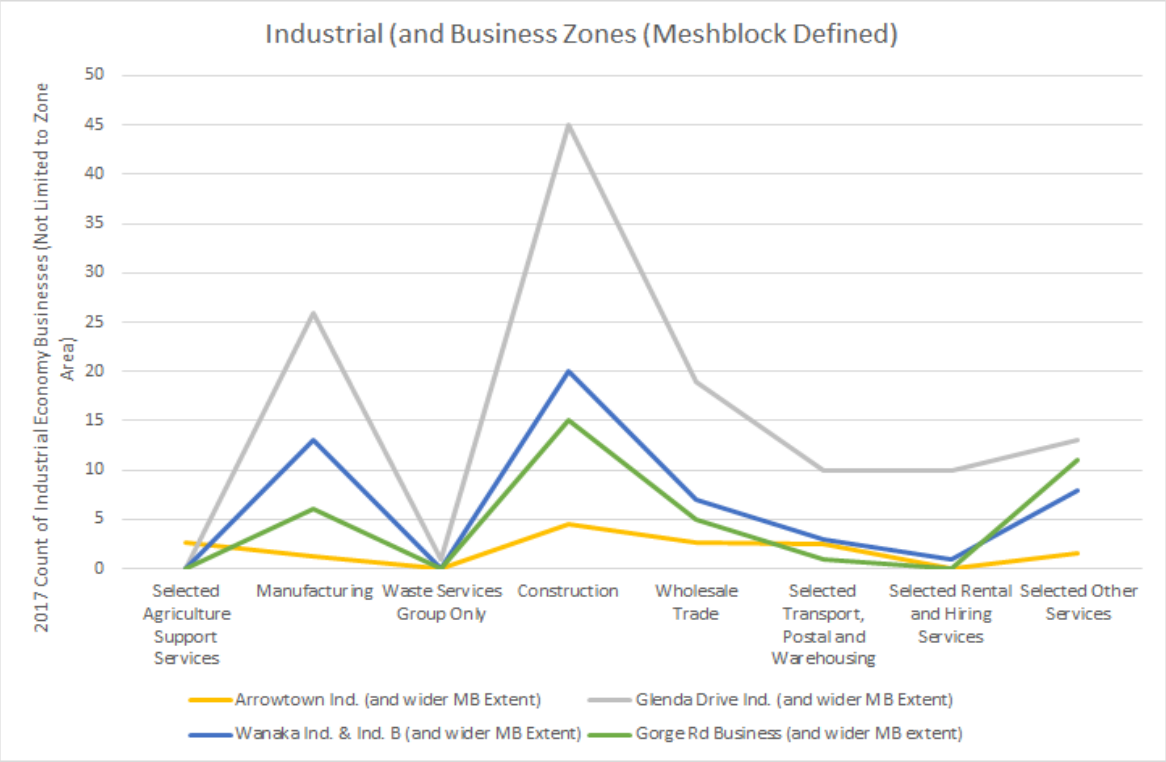


Figure 4.23 – Comparison Using Business Directory Meshblock Data (2017) – IE Business Share

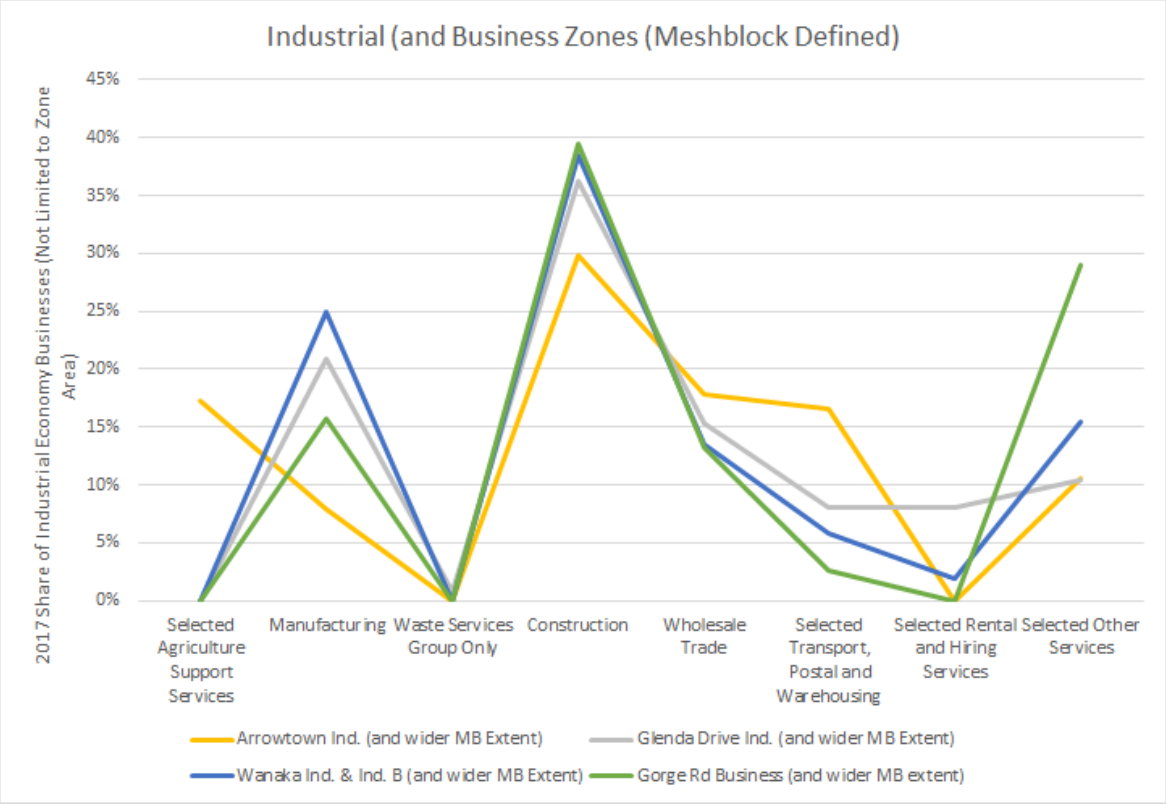


Figure 4.24 – Comparison Using Field Survey Zone Data (2019) – Total Business Count

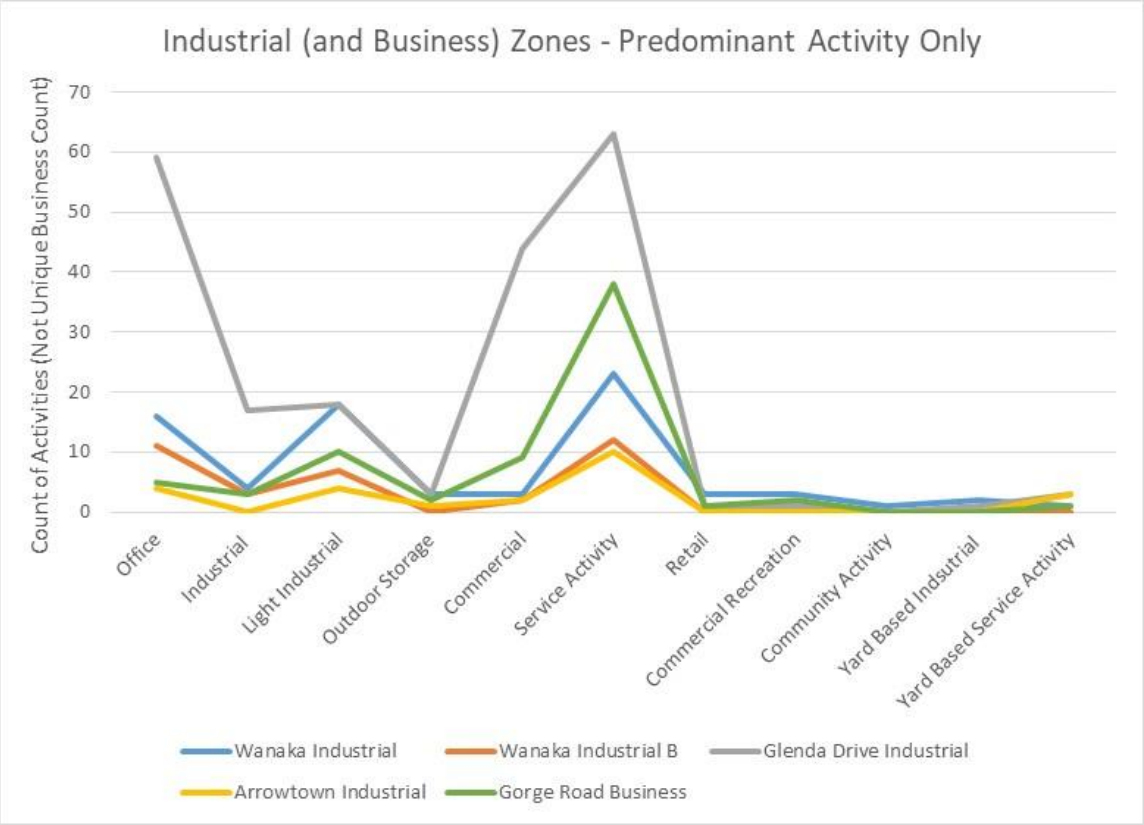
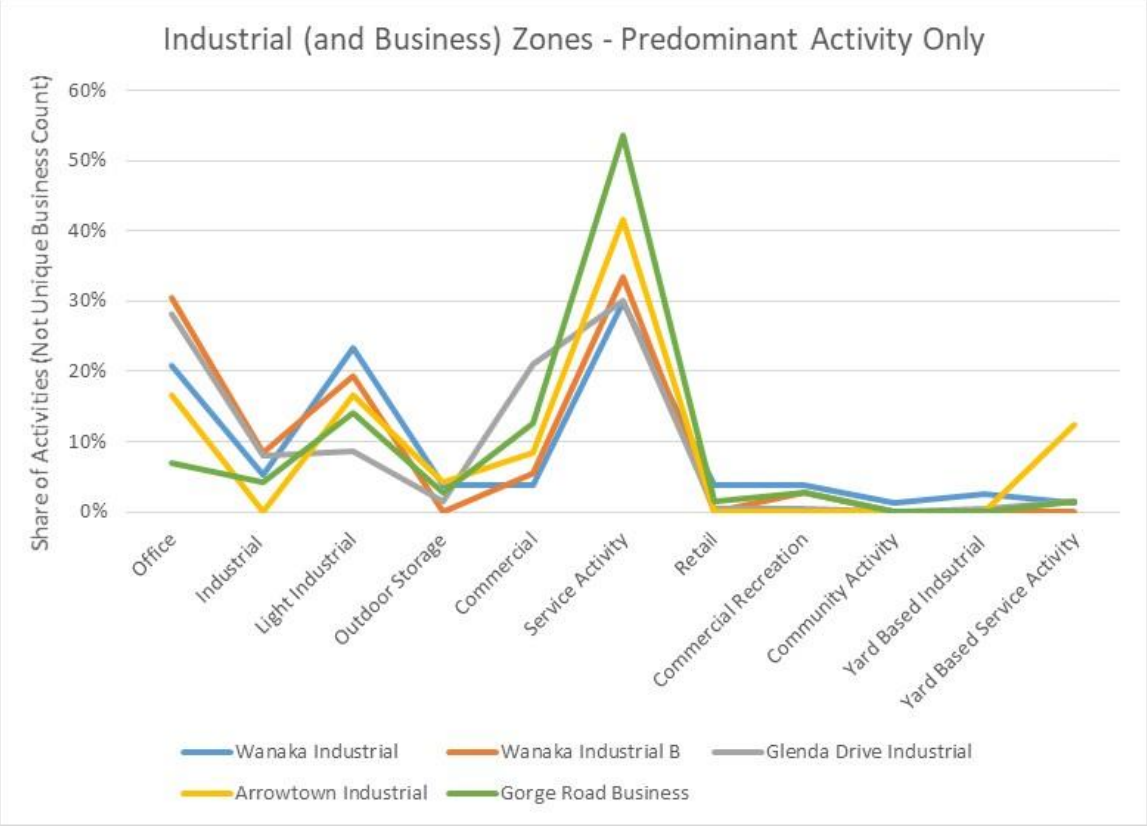


Figure 4.25 – Comparison Using Field Survey Zone Data (2019) – Total Business Share



5 Recent Changes in the Industrial Economy

This section examines how the QLD industrial economy has changed in recent years – not only in terms of its size, but it's structure. This is important because evidence of 'size change' provides clues for the rate of future growth that will need to be met (zone capacity). Evidence of 'structural change' reminds Council's that their industrial zones need to be flexible enough to allow the industrial economy to adapt. Provisions for managing activities and effects in industrial zones in the past, may not be suitable for today's industrial economy. Basing new provisions for managing activities and effects in industrial zones on what we see today, may not be suitable for the future industrial economy. These are all pertinent issues for the District Plan Review.

5.1 Business Growth 2001-2017

Figure 5.1 takes a high-level look at business counts in the QLD industrial economy between 2001 and 2017. A snapshot is provided for 2001, 2006, 2013 and 2017 (being a combination of census years and the latest year available for Statistics NZ Business Directory data). In order to compare the industrial economy over time, M.E has ensured that the approach to identifying the industrial economy is applied in each year – that is, if there were relevant industries that had one or more businesses in the past that are no-longer present in QLD's industrial economy, they were included in the industrial economy at that time.

The analysis shows that in 2001, the QLD industrial economy was just over a third of the size it is today in terms of the count of businesses. There were just 739 businesses. This grew to 1,490 businesses by 2006 (total growth of 751 businesses; 102% or an annual average growth rate of 15%). This rate of growth was faster than the rate of growth for the rest of QLD economy (73% between 2001-2006 or an annual average rate of 12%).

Jumping to 2013, the industrial economy was larger again at 1,626 businesses. This was however total growth of just 9% or 136 businesses between 2006 and 2013 – a significant slow-down (just 1.3% per annum). This is explained by the global financial crisis (GFC, approximately 2008), which took some time to recover from. This highlights that QLD's industrial economy is vulnerable to global and national economic forces. Between 2013 and 2017 growth picked up. The total count of businesses increased by 302 which was total growth of 19% or 4.4% per annum.

Overall, between 2001 and 2017, the number of businesses in QLD's industrial economy has increased by 1,189 to reach 1,928, from a base of 739 in 2001. This is total growth of 161% or an average annual growth rate of 6.2%. This is slightly faster than the growth rate of the rest of the QLD economy (152% total growth or 6.0% per annum (Figure 5.1).

Figure 5.1 – Total QLD Industrial Economy Business Count Growth 2001-2017

ANZSIC Division	Industrial Economy Selection	Businesses 2001	Businesses 2006	Businesses 2013	Businesses 2017
A	Selected Ag/Forestry/Fishing Support Services	24	41	47	50
C	Manufacturing	114	163	168	225
D	Waste Services Group Only	9	11	12	15
E	Construction	401	950	1,042	1,168
F	Wholesale Trade	55	97	106	154
I	Selected Transport, Postal and Warehousing	31	64	63	85
L	Selected Rental and Hiring Services	59	84	104	128
S	Selected Other Services	46	80	84	102
QLD Industrial Economy		739	1,490	1,626	1,928
Rest of QLD Economy (all other ANZSICs)		2,291	3,959	4,890	5,782
Total QLD Economy		3,030	5,449	6,516	7,710
QLD Industrial Economy as Share of Total Economy		*24%*	*27%*	*25%*	*25%*

Growth by Time Period (n)		Businesses 2001-06	Businesses 2006-13	Businesses 2013-17	Businesses 2001-2017
A	Selected Ag/Forestry/Fishing Support Services	17	6	3	26
C	Manufacturing	49	5	57	111
D	Waste Services Group Only	2	1	3	6
E	Construction	549	92	126	767
F	Wholesale Trade	42	9	48	99
I	Selected Transport, Postal and Warehousing	33	-1	22	54
L	Selected Rental and Hiring Services	25	20	24	69
S	Selected Other Services	34	4	18	56
QLD Industrial Economy		751	136	302	1,189
Rest of QLD Economy (all other ANZSICs)		1,668	931	892	3,491
Total QLD Economy		2,419	1,067	1,194	4,680

Growth by Time Period (%)		Businesses 2001-06	Businesses 2006-13	Businesses 2013-17	Businesses 2001-2017
A	Selected Ag/Forestry/Fishing Support Services	71%	15%	7%	109%
C	Manufacturing	43%	3%	34%	98%
D	Waste Services Group Only	22%	9%	23%	63%
E	Construction	137%	10%	12%	191%
F	Wholesale Trade	76%	9%	46%	181%
I	Selected Transport, Postal and Warehousing	106%	-2%	35%	174%
L	Selected Rental and Hiring Services	42%	24%	23%	117%
S	Selected Other Services	74%	5%	22%	122%
QLD Industrial Economy		102%	9%	19%	161%
Rest of QLD Economy (all other ANZSICs)		73%	24%	18%	152%
Total QLD Economy		80%	20%	18%	154%

Source: M.E, Statistics NZ Business Frame

The Division within the industrial economy that has grown most significantly in terms of businesses is the Construction sector. This grew especially strongly between 2001 and 2006 with 549 additional businesses. In the following two time periods, the total increase was just 10% and 12% respectively (a significant slow-down in growth rate, but still a positive increase). Overall since 2001, there has been 767 Construction businesses added to QLD (Figure 5.1).

While Wholesale Trade is a relatively small sector in terms of QLD's total industrial economy, it is notable that its total rate of growth between 2001 and 2017 has been almost as rapid as the Construction sector (181% compared to 191% for Construction in that period). It was the fastest growing sector in the most recent period of 2013-2017; 46% growth compared with an average across the total industrial economy in that period of just 19%. In fact, all Divisions except Selected Agricultural Services grew faster than the construction sector since 2013 in percentage terms. In quantum terms though, the Construction sector still dominates (and accounted for 42% of all industrial economy growth between 2013 and 2017).

This does show that several Divisions within the QLD industrial economy are on the rise.

5.2 Employment Growth 2001-2017

Figure 5.2 tells a similar story from the perspective of industrial economy employment growth between 2001 and 2017. The analysis shows that in 2001, the QLD industrial economy was just over a third of the size it is today in terms of the count of workers (2,258). This grew to 4,344 workers by 2006 (total growth of 2,086 workers; 92% or an annual average growth rate of 14%). This rate of growth was considerably faster than the rate of employment growth for the rest of QLD economy (40% between 2001-2006 or an annual average rate of 7%). As these growth rates are lower than business growth rates, it indicates that in the rapid period of growth between 2001 and 2016, QLD was attracting lots of smaller businesses, particularly in the rest of the economy.

Jumping to 2013, the industrial economy was larger again at 4,426 workers. This was however total growth of just 2% or 82 workers between 2006 and 2013 – a significant slow-down (just 0.3% per annum). This shows that the GFC impacted not only on the number of businesses that the market could sustain, but also shows that a share of businesses survived by drastically reducing staff. This is evidenced by the business growth rate of 9% compared with the 2% growth rate of employment. Between 2013 and 2017 growth picked up. The total count of workers increased by 1,823 which was total growth of 41% or 9% per annum. This was faster than business growth in this period (19%), meaning that either the new businesses were much larger in size, or more likely, existing businesses were building up their staff counts due to better economic times.

Overall, between 2001 and 2017, the number of workers in QLD's industrial economy has increased by roughly 3,990 to reach approximately 6,250, from a base of around 2,260 in 2001. This is total growth of 177% or an average annual growth rate of 6.6%. This is faster than the growth rate of the rest of the QLD economy (115% total growth or 4.9% per annum (Figure 5.2).

The Division within the industrial economy that has grown most significantly in terms of workers is the Construction sector. This grew especially strongly between 2001 and 2006 with 1,475 additional businesses. In the following time period (2006-2013) the total count of Construction workers shrank by 5% (-126), but then grew by another 1,044 workers between 2013 and 2017. Overall since 2001, there has been a net increase of 2,390 odd Construction workers in QLD – growth of 223% and the fastest rate of overall growth across all Divisions of the industrial economy (Figure 5.2).

Figure 5.2 – Total QLD Industrial Economy Employment Count Growth 2001-2017

ANZSIC Division	Industrial Economy Selection	Employment 2001	Employment 2006	Employment 2013	Employment 2017
A	Selected Ag/Forestry/Fishing Support Services	96	216	98	130
C	Manufacturing	436	637	658	862
D	Waste Services Group Only	39	55	63	103
E	Construction	1,072	2,547	2,421	3,465
F	Wholesale Trade	180	227	364	573
I	Selected Transport, Postal and Warehousing	159	228	231	312
L	Selected Rental and Hiring Services	127	185	302	371
S	Selected Other Services	150	248	289	434
QLD Industrial Economy		2,258	4,344	4,426	6,249
Rest of QLD Economy (all other ANZSICs)		10,031	14,007	16,242	21,551
Total QLD Economy		12,289	18,351	20,668	27,800
QLD Industrial Economy as Share of Total Economy		*18%*	*24%*	*21%*	*22%*

Growth by Time Period (n)		Employment 2001-06	Employment 2006-13	Employment 2013-17	Employment 2001-2017
A	Selected Ag/Forestry/Fishing Support Services	120	-118	32	34
C	Manufacturing	201	21	204	426
D	Waste Services Group Only	16	8	40	64
E	Construction	1,475	-126	1,044	2,393
F	Wholesale Trade	47	137	209	393
I	Selected Transport, Postal and Warehousing	69	3	80	153
L	Selected Rental and Hiring Services	58	117	69	244
S	Selected Other Services	99	41	145	285
QLD Industrial Economy		2,086	82	1,823	3,991
Rest of QLD Economy (all other ANZSICs)		3,976	2,235	5,309	11,520
Total QLD Economy		6,062	2,317	7,132	15,511

Growth by Time Period (%)		Employment 2001-06	Employment 2006-13	Employment 2013-17	Employment 2001-2017
A	Selected Ag/Forestry/Fishing Support Services	126%	-55%	33%	35%
C	Manufacturing	46%	3%	31%	98%
D	Waste Services Group Only	41%	15%	63%	166%
E	Construction	138%	-5%	43%	223%
F	Wholesale Trade	26%	61%	57%	218%
I	Selected Transport, Postal and Warehousing	44%	1%	35%	96%
L	Selected Rental and Hiring Services	46%	63%	23%	192%
S	Selected Other Services	66%	16%	50%	190%
QLD Industrial Economy		92%	2%	41%	177%
Rest of QLD Economy (all other ANZSICs)		40%	16%	33%	115%
Total QLD Economy		49%	13%	35%	126%

Source: M.E, Statistics NZ Business Frame

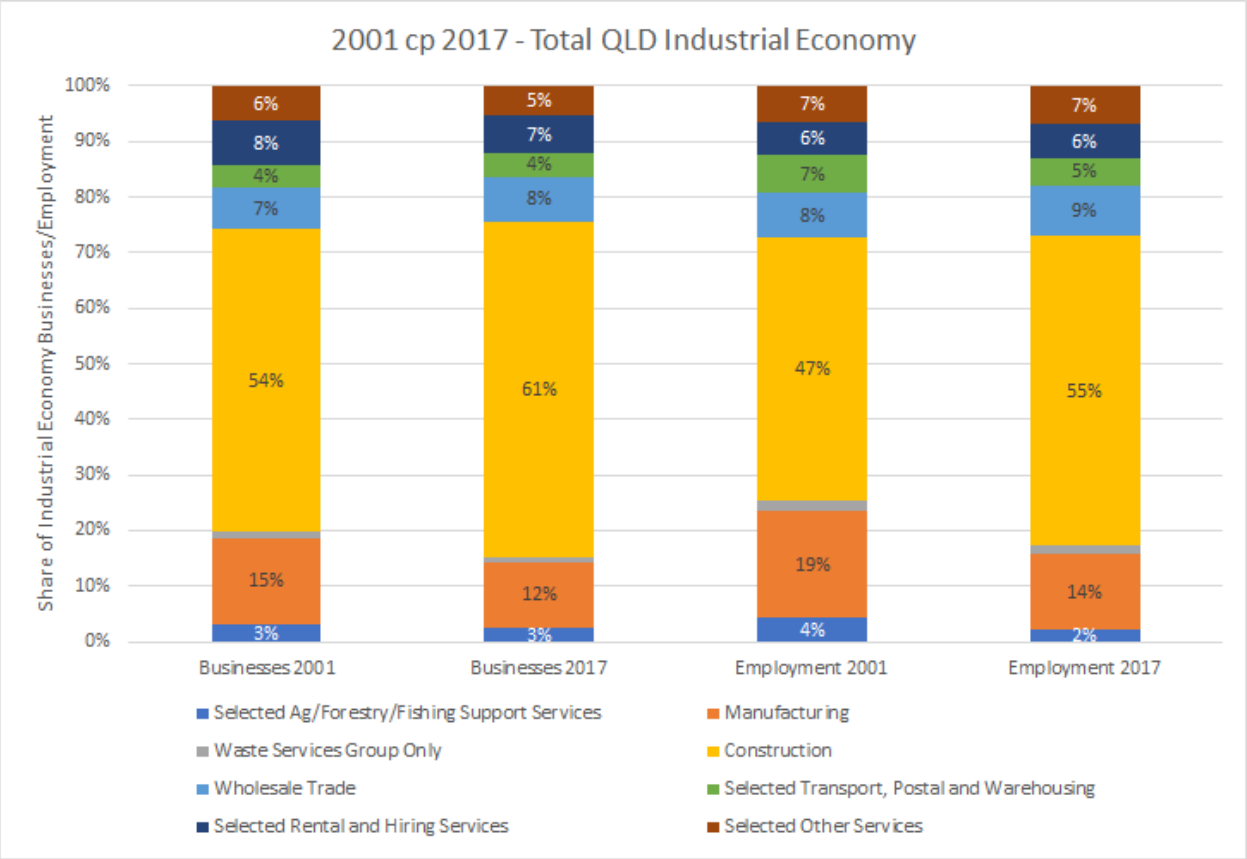
Again, Wholesale Trade is a relatively small Division in terms of QLD's total industrial economy employment, but it is notable that its total rate of growth between 2001 and 2017 has been almost as rapid as the Construction sector (218% compared to 223% for Construction in that period). It was the second fastest growing sector in the most recent period of 2013-2017; 57% growth compared with an average across the total industrial economy in that period of 41%. Waste Services was the fastest growing Division since 2013 (63%). The only other above average growth was by the Selected Other Services Division. In quantum terms

though, the Construction sector still dominates (and accounted for 57% of all industrial economy employment growth between 2013 and 2017).

5.3 Structural Shifts 2001-2017

Figure 5.3 compares the structure of the industrial economy between 2001 and 2017. The structure of businesses is represented by the two left hand bars. The structure of employment is represented in the two right hand bars. The dominance of the Construction Division is clear. It accounted for 54% of industrial economy businesses in 2001 but now accounts for a 61% share. Similarly, in employment terms, Construction has increased from a 47% share to a 55% share. As a result, other industrial economy sectors generally represent a smaller share of the total, with the exception of the Wholesale Trade Division, which has increased by 1 percentage point in both the share of business and employment. While none of the other sectors have declined in absolute terms, there slower growth rates mean that they now play a smaller role in the industrial economy than they did in the past. The industrial economy in QLD is becoming slightly less diverse compared to 2001, but even then, it was dominated by Construction activity.

Figure 5.3 – Share of Industrial Economy in QLD 2001 versus 2017 – Businesses & Employment



It is useful to test whether the recent changes experienced by QLD's industrial economy have been consistent with changes in the wider industrial economy of New Zealand. Comparing the total Manufacturing and total Construction sector is the most robust way to do this. We have based the comparison on the share that each sector makes up in the total economy over time. Key findings are:

Manufacturing

- We have already established that the Manufacturing Division accounts for a smaller share of the QLD industrial economy (and Construction a larger share) than many other places, and the national average (section 2.4). Therefore, it is relevant to consider the relative shift in share between 2001 and 2017.
- In QLD, the total Manufacturing sector decreased from a 3.8% share to a 2.9% share of total businesses in the economy (2001 to 2017). This is a reduction in share of 22%.
- By comparison, the total Manufacturing sector in New Zealand decreased from a 5.5% share to a 4.0% share. This is a reduction in share of 27% (2001 to 2017). This means that the changing (declining) relative role of Manufacturing in the QLD economy has been only slightly less apparent than the shifts seen nationwide.
- In QLD, the total Manufacturing sector decreased from a 3.5% share to a 3.1% share of total employment in the economy. This is a reduction in share of 13% (2001 to 2017).
- By comparison, the total Manufacturing sector in New Zealand decreased from a 13.3% share of total employment to a 9.7% share. This is a reduction in share of 27% (2001 to 2017). This means that the changing (declining) relative role of Manufacturing employment in the QLD economy has been significantly less (half as) apparent to the shifts seen nationwide.

Construction

- In QLD, the total Construction sector increased from a 13.2% share to a 15.2% share of total businesses in the economy (2001 to 2017). This is an increase in share of 15%.
- By comparison, the total Construction sector in New Zealand increased from a 10.1% share to a 10.8% share. This is an increase in share of 7% (2001 to 2017). This means that the changing (increasing) relative role of Construction in the QLD economy has been significantly more (twice as) apparent than the shifts seen nationwide.
- In QLD, the total Construction sector increased from an 8.7% share to a 12.5% share of total employment in the economy. This is an increase in share of 43% (2001 to 2017).
- By comparison, the total Construction sector in New Zealand increased from a 6.0% share of total employment to an 8.6% share. This is an increase in share of 44% (2001 to 2017). This means that the changing (increasing) relative role of Construction employment in the QLD economy has been very similar to the shifts seen nationwide.

In summary this means that, structurally, the QLD industrial (and total) economy is not changing in the same way as New Zealand's industrial (and total) economy. It is somewhat unique and responding to different drivers of demand and supply compared with the rest of New Zealand. While the relative rise in the role of Construction employment in the economy is similar to that seen nationwide, the nature of that business growth has been different – namely smaller sized Construction business. For example, the Construction sector in QLD supports a greater share of independent builders.

5.4 Moderate-Strong Growth Industries

This section looks at the growth in the industrial economy in more detail (by 6-Digit ANZSIC). Figure 5.4 shows those ANZSICs within the industrial economy that have experienced moderately strong net growth in business counts between 2001 and 2017. These are the industry's most "on the rise". The industries highlighted in darker green are those growth industries that have experienced consistent positive growth in each period analysed and are key sectors to watch in future. The balance has had one period where the size of the industry declined. More often than not, this was in the period containing the GFC, but some have declined more recently – whilst still showing a net increase.

Figure 5.4 – Industries in Industrial Economy with Mod-Strong Net Business Growth 2001-2017

QLD Industrial Economy	ANZSIC	Division	2001-2006	2006-2013	2013-2017	2001-2017	Share of IE Growth 2001-2017 %	Share of IE 2017 (%)
Industrial - House Construction	E301100	E	219	17	10	246	21%	20%
Industrial - Other Residential Building Construction	E301900	E	22	24	20	66	6%	4%
Industrial - Other Goods and Equipment Rental and Hiring n.e.c.	L663900	L	16	19	20	55	5%	3%
Industrial - Electrical Services	E323200	E	28	11	9	48	4%	4%
Industrial - Painting and Decorating Services	E324400	E	36	-1	10	45	4%	4%
Industrial - Land Development and Subdivision	E321100	E	20	9	11	40	3%	3%
Industrial - Landscape Construction Services	E329100	E	32	8	-3	37	3%	2%
Industrial - Plastering and Ceiling Services	E324100	E	35	-10	8	34	3%	3%
Industrial - Plumbing Services	E323100	E	20	12	-3	29	2%	3%
Industrial - Tiling and Carpeting Services	E324300	E	20	-2	10	28	2%	2%
Industrial - Other Automotive Repair and Maintenance	S941900	S	13	6	8	27	2%	3%
Industrial - Site Preparation Services	E321200	E	23	-2	6	27	2%	2%
Industrial - Other Construction Services n.e.c.	E329900	E	10	14	2	26	2%	2%
Industrial - Other Agriculture and Fishing Support Services	A052900	A	17	6	3	26	2%	3%
Industrial - Carpentry Services	E324200	E	20	-7	8	21	2%	2%
Industrial - Other Heavy and Civil Engineering Construction	E310900	E	5	6	10	21	2%	1%
Industrial - Road Freight Transport	I461000	I	11	2	7	20	2%	2%
Industrial - Bricklaying Services	E322200	E	18	9	-8	19	2%	2%
Industrial - Courier Pick-up and Delivery Services	I510200	I	3	4	11	18	1%	1%
Industrial - Wine and Other Alcoholic Beverage Manufacturing	C121400	C	4	9	2	15	1%	1%
Industrial - Concreting Services	E322100	E	8	-0	7	15	1%	1%
Industrial - Wooden Furniture and Upholstered Seat Manufacturing	C251100	C	5	-0	10	15	1%	1%
Industrial - Other Motor Vehicle and Transport Equipment Rental and Hiring	L661900	L	5	11	-2	15	1%	1%
Industrial - Other Electrical and Electronic Goods Wholesaling	F349400	F	7	2	5	14	1%	1%
Industrial - Roofing Services	E322300	E	14	-1	0	13	1%	1%
Industrial - Air Conditioning and Heating Services	E323300	E	7	2	4	13	1%	1%
Industrial - Passenger Car Rental and Hiring	L661100	L	12	-7	7	12	1%	2%
Industrial - Commission Based Wholesaling	F380000	F	3	-2	11	12	1%	1%
Industrial - Automotive Body, Paint and Interior Repair	S941200	S	7	-1	6	12	1%	1%
Industrial - Non-Residential Building Construction	E302000	E	2	-1	10	11	1%	1%
Industrial - Aircraft Manufacturing and Repair Services	C239400	C	3	2	5	10	1%	1%

House Construction was the biggest mover. It currently accounts for 20% of the businesses in the QLD industrial economy but accounted for 21% of the industrial economy growth between 2001-2017. Not all these ANZSICs have a high propensity (functional need) to seek an industrial zone location. But for those that do (section 4.3.1), relatively more weight should be given to considering the degree to which current industrial zone provisions (policies and rules/standards) accommodate the needs of these types of business operations.

5.5 Low-Moderate Growth Industries

Figure 5.5 shows those industries within the industrial economy that have experienced low-moderate net growth in business counts between 2001 and 2017. These are the industry's slowly "on the rise". The ANZSICs highlighted in darker orange are those growth industries that have experienced consistent positive growth in each period analysed and are sectors to watch in future. The balance has had one (or two) period(s) where the size of the industry declined. More often than not, this was in the period containing the GFC, but some have declined more recently – whilst still showing a small net increase.

Figure 5.5 – Industries in Industrial Economy with Low-Moderate Net Business Growth 2001-2017

QLD Industrial Economy	ANZSIC	Division	2001-2006	2006-2013	2013-2017	2001-2017	Share of IE Growth 2001-2017 %	Share of IE 2017 (%)
Industrial - Other Building Installation Services	E323900	E	-	4	5	9	1%	0%
Industrial - Other Machinery and Equipment Manufacturing n.e.c.	C249900	C	-1	2	8	9	1%	1%
Industrial - Electronic (except Domestic Appliance) and Precision Equipment	S942200	S	7	-1	2	8	1%	0%
Industrial - Other Goods Wholesaling n.e.c.	F373900	F	10	-1	-2	8	1%	1%
Industrial - Clothing and Footwear Wholesaling	F371200	F	5	2	-0	7	1%	0%
Industrial - Liquor and Tobacco Product Wholesaling	F360600	F	4	-2	4	6	1%	1%
Industrial - Other Agricultural Product Wholesaling	F331900	F	1	-	5	6	1%	0%
Industrial - Road and Bridge Construction	E310100	E	-2	1	7	6	1%	1%
Industrial - Other Warehousing and Storage Services	I530900	I	1	-	5	6	0%	0%
Industrial - Bakery Product Manufacturing (Non-factory-based)	C117400	C	3	-	2	5	0%	1%
Industrial - Beer Manufacturing	C121200	C	-	1	4	5	0%	0%
Industrial - Iron Smelting and Steel Manufacturing	C211000	C	-	3	2	5	0%	0%
Industrial - Other Non-Metallic Mineral Product Manufacturing	C209000	C	6	-4	3	5	0%	0%
Industrial - Hire of Construction Machinery with Operator	E329200	E	3	3	-1	5	0%	0%
Industrial - Other Transport Support Services n.e.c	I529900	I	-	2	3	5	0%	0%
Industrial - Laundry and Dry-Cleaning Services	S953100	S	4	-1	2	5	0%	1%
Industrial - Other Hardware Goods Wholesaling	F333900	F	1	3	1	5	0%	0%
Industrial - Other Manufacturing n.e.c.	C259900	C	-1	1	5	5	0%	0%
Industrial - Medical and Surgical Equipment Manufacturing	C241200	C	-	2	2	4	0%	0%
Industrial - Cut and Sewn Textile Product Manufacturing	C133300	C	1	2	1	4	0%	0%
Industrial - Other Fabricated Metal Product Manufacturing n.e.c.	C229900	C	4	1	-1	4	0%	0%
Industrial - Fire and Security Alarm Installation Services	E323400	E	4	-2	2	4	0%	0%
Industrial - Other Water Transport Support Services	I521900	I	3	-1	2	4	0%	0%
Industrial - Other Grocery Wholesaling	F360900	F	1	2	1	4	0%	1%
Industrial - Glazing Services	E324500	E	3	-1	2	4	0%	0%
Industrial - Petroleum Product Wholesaling	F332100	F	2	1	1	4	0%	0%
Industrial - Toy and Sporting Goods Wholesaling	F373400	F	-1	2	3	4	0%	0%
Industrial - Metal Roof and Guttering Manufacturing (except Aluminium)	C222400	C	-	1	3	4	0%	0%
Industrial - Concrete Product Manufacturing	C203400	C	2	-	2	4	0%	0%
Industrial - Motor Vehicle Body and Trailer Manufacturing	C231200	C	1	1	1	3	0%	0%
Industrial - Dairy Produce Wholesaling	F360300	F	-	-	3	3	0%	0%
Industrial - Confectionery Manufacturing	C118200	C	-	2	1	3	0%	0%
Industrial - Cake and Pastry Manufacturing (Factory-based)	C117200	C	-1	3	1	3	0%	0%
Industrial - Cosmetic and Toiletry Preparation Manufacturing	C185200	C	-	-	3	3	0%	0%
Industrial - Other Food Products Manufacturing n.e.c.	C119900	C	1	-	2	3	0%	0%
Industrial - Furniture and Floor Coverings Wholesaling	F373100	F	3	-2	2	3	0%	0%
Industrial - Other Machinery and Equipment Repair and Maintenance	S942900	S	1	1	1	3	0%	0%
Industrial - Waste Treatment and Disposal Services	D292100	D	3	-1	1	3	0%	0%
Industrial - Agricultural and Construction Machinery Wholesaling	F341100	F	1	1	1	3	0%	0%
Industrial - Fruit and Vegetable Processing	C114000	C	-	-	3	3	0%	0%

Other Building Insulation Services was the biggest mover in this group. It currently accounts for less than 1% of the businesses in the QLD industrial economy and accounted for 1% of the industrial economy growth between 2001-2017. Not all these ANZSICs have a high propensity (functional need) to seek an industrial zone location. But for those that do (section 4.3.1), some weight should be given to considering the degree

to which current industrial zone provisions (policies and rules/standards) accommodate the needs of these types of business operations.

5.6 Declining Industries

When reviewing the 'fit' of industrial zone provisions to meet the future needs of the industrial economy, consideration should be given to industries that are in decline (in terms of the count of businesses). These industries may be facing decreasing demand from a changing market and/or facing increasing competition from outside the district. Alternatively, they may be undergoing consolidation (fewer businesses catering for a larger market share each). Either way, a decline in recent years *may* suggest continued decline in future years (particularly under a business as usual scenario).

Figure 5.6 shows those ANZSICs within the industrial economy that have experienced a net decrease in business counts between 2001 and 2017. All of them account for a very small share of total industrial economy businesses. These are the industry's slowly "on the decline". The ANZSICs highlighted in darker red are those industries that have experienced consistent negative growth in each period analysed and are sectors that may be exiting at some time in the future if these trends continue. The balance have had one (or two) period(s) where the size of the industry increased or stayed the same. We note that in one of these ANZSICs (Wooden Structural Fittings and Components Manufacturing), Cromwell has a number of businesses (and this may be a relevant factor).

Figure 5.6 – Industries in Industrial Economy with Net Business Decline 2001-2017

QLD Industrial Economy	ANZSIC	Division	2001-2006	2006-2013	2013-2017	2001-2017	Share of IE Growth 2001-2017 %	Share of IE 2017 (%)
Industrial - Boatbuilding and Repair Services	C239200	C	-1	-	0	-1	0%	0%
Industrial - Agricultural Machinery and Equipment Manufacturing	C246100	C	-	-1	-	-1	0%	0%
Industrial - Other Ceramic Product Manufacturing	C202900	C	-2	-3	-	-1	0%	0%
Industrial - Other Structural Metal Product Manufacturing	C222900	C	-3	-4	-	-1	0%	0%
Industrial - Ready-Mixed Concrete Manufacturing	C203300	C	-	-	-1	-1	0%	0%
Industrial - Textile Finishing and Other Textile Product Manufacturing	C133400	C	-	-1	-	-1	0%	0%
Industrial - Other Wood Product Manufacturing n.e.c.	C149900	C	-	-1	-1	-2	0%	0%
Industrial - Wooden Structural Fittings and Components Manufacturing	C149200	C	-1	-3	-6	-8	-1%	0%
Rest of Manufacturing		C	-6	-6	-9	-9	-1%	0%
Industrial - Heavy Machinery and Scaffolding Rental and Hiring	L663100	L	-8	-3	-2	-13	-1%	0%

Heavy Machinery and Scaffolding Rental and Hiring was the biggest loser in this group (with the loss of 13 businesses although the rate of decline is less recently compared to 2001-2006). It currently accounts for less than 1% of the businesses in the QLD industrial economy. We note that employment in this ANZSIC has also declined in net terms since 2001. This *suggests* that the decline is not caused by consolidation (where employment levels may be more likely to stay the same), but that conclusion is not certain. Not all these ANZSICs have a high propensity (functional need) to seek an industrial zone location. But for those that do (section 4.3.1), relatively less weight might be given to considering the degree to which current industrial zone provisions (policies and rules/standards) accommodate the needs of these types of business operations. The possible exception might be Ready-Mixed Concrete Manufacturing, which while losing one business to drop from 4 to 3, has increased employment in the same time (by 14). Most of these industries are heavy industrial businesses.

5.7 Lost Industries

This section identifies industrial sectors for which there have been one or more businesses in QLD in the recent past (since 2001) but are no longer present / represented in the industrial economy. These industries are listed below. These are industries that while probably only small or unique have already exited (closed or moved). On the one hand, the loss of these industries might be considered as gaps in the market and an opportunity for new entrants. However, M.E considers it is more likely that QLD will not see these types of ANZSICs again. Most are heavy industries.

- Cheese and other dairy product manufacturing
- Communication equipment manufacturing
- Leather tanning, fur dressing and leather product manufacturing
- Log sawmilling
- Machine tool and parts manufacturing
- Meat processing
- Other electronic equipment manufacturing
- Other motor vehicle parts manufacturing
- Other polymer product manufacturing
- Polymer foam product manufacturing
- Prefabricated metal building manufacturing
- Reconstituted wood product manufacturing
- Reproduction of recorded media
- Toy, sporting and recreational product manufacturing
- Whiteware appliance manufacturing

5.8 Recent Growth by Ward

Figure 5.7 examines recent growth in business counts in the industrial economy by ward. It considers just the 2001 and 2017 snapshots. While the total industrial economy has grown by 161% during that period, Wanaka's industrial economy has increased at a much faster rate. It has increased from 234 businesses in 2001 to 736 in 2017 (growth of 215% or 502 businesses). Wanaka's total economy has also grown faster than the district average, but the industrial economy has increased its share of total businesses from 28% to 30%. Wholesale Trade and Transport, Postal and Warehousing Divisions have had the fastest growth rate, marginally higher than Construction, but in absolute terms, Construction has still experienced the largest increase in business counts.

Figure 5.7 – QLD Industrial Economy Business Count Growth by Ward 2001-2017

ANZSIC Division	Industrial Economy Selection	Arrowtown	Queenstown	Wanaka	Total QLD
Businesses 2001					
A	Selected Ag/Forestry/Fishing Support Services	3	8	13	24
C	Manufacturing	10	63	41	114
D	Waste Services Group Only	-	7	2	9
E	Construction	43	230	128	401
F	Wholesale Trade	2	36	17	55
I	Selected Transport, Postal and Warehousing	4	20	7	31
L	Selected Rental and Hiring Services	4	40	15	59
S	Selected Other Services	4	31	11	46
Industrial Economy		70	435	234	739
Rest of Economy (all other ANZSICs)		115	1,564	612	2,291
Total Economy		185	1,999	846	3,030
Industrial Economy as Share of Total Economy		*38%*	*22%*	*28%*	*24%*
Businesses 2017					
A	Selected Ag/Forestry/Fishing Support Services	5	21	24	50
C	Manufacturing	13	124	88	225
D	Waste Services Group Only	-	9	6	15
E	Construction	94	619	455	1,168
F	Wholesale Trade	3	83	68	154
I	Selected Transport, Postal and Warehousing	4	56	25	85
L	Selected Rental and Hiring Services	6	86	36	128
S	Selected Other Services	9	60	34	102
Industrial Economy		133	1,059	736	1,928
Rest of Economy (all other ANZSICs)		328	3,716	1,738	5,782
Total Economy		462	4,775	2,474	7,710
Industrial Economy as Share of Total Economy		*29%*	*22%*	*30%*	*25%*
Net Growth 2001-2017 (n)					
A	Selected Ag/Forestry/Fishing Support Services	2	13	11	26
C	Manufacturing	3	61	47	111
D	Waste Services Group Only	-	2	4	6
E	Construction	51	389	327	767
F	Wholesale Trade	1	47	51	99
I	Selected Transport, Postal and Warehousing	- 1	36	18	54
L	Selected Rental and Hiring Services	2	46	21	69
S	Selected Other Services	5	29	23	56
Industrial Economy		63	624	502	1,189
Rest of Economy (all other ANZSICs)		213	2,152	1,126	3,491
Total Economy		277	2,776	1,628	4,680
Net Growth 2001-2017 (%)					
A	Selected Ag/Forestry/Fishing Support Services	63%	168%	84%	109%
C	Manufacturing	33%	96%	116%	98%
D	Waste Services Group Only	0%	23%	205%	63%
E	Construction	119%	169%	256%	191%
F	Wholesale Trade	35%	132%	301%	181%
I	Selected Transport, Postal and Warehousing	-13%	181%	259%	174%
L	Selected Rental and Hiring Services	50%	116%	139%	117%
S	Selected Other Services	120%	93%	206%	122%
Industrial Economy		90%	143%	215%	161%
Rest of Economy (all other ANZSICs)		185%	138%	184%	152%
Total Economy		149%	139%	192%	154%

Source: M.E, Statistics NZ Business Frame

The count of industrial economy businesses in the Queenstown ward has grown by 624 between 2001 and 2017. However, this is growth of 143% - below the district average. The industrial economy in Queenstown ward has however grown faster than the rest of the economy (142% compared to 138%). As with Wanaka, the fastest growing sector is Transport, Postal and Warehousing at 181% - not as fast as the increase in Wanaka (259%) but double the growth in quantum (36 new businesses compared to 18 in Wanaka). The Construction sector in Queenstown has grown by 169% between 2001 and 2017 (389 additional businesses). The amount of growth is not that much more than in Wanaka despite the larger size of the market. Wanaka's Construction growth represents a more significant change from the 2001 situation (256% growth compared to 169% in Queenstown).

Figure 5.8 examines recent growth in employment counts in the industrial economy by ward. While total industrial economy employment has grown by 177% during that period, Wanaka's industrial economy employment has increased at a much more significant rate. It has increased from 538 workers in 2001 to 1,873 in 2017 (growth of 248% or 1,335 workers). Wanaka's total economy has also grown faster than the district average, but the industrial economy has increased its share of total employment from 20% to 26%.

Waste Services has had the most rapid growth (829%) but off a very small base in 2001. The actual growth in workers in that sector was 61. Wholesale Trade has had the second fastest employment growth rate (528%) but again, off a small base. While the growth of Transport, Postal and Warehousing businesses has been rapid in percentage terms, the same does not apply to the rate of employment growth in that sector (just 57%). The addition of 18 businesses only translated into growth of 23 workers. On closer investigation, most of the employment growth has been for Bus Transport. The increase in businesses has most likely been linked to Couriers and Other Transport Services (which includes taxis). Construction has still experienced the largest increase in employment counts in Wanaka (818 additional workers).

Total growth in the Queenstown ward's industrial economy employment has been 2,368 (2001-2017). This is 59% of district growth in the industrial economy. Arrowtown ward has increased industrial economy employment by 288 (an increase of 225%). There Construction sector growth accounts for 67% of the total growth (Figure 5.8).

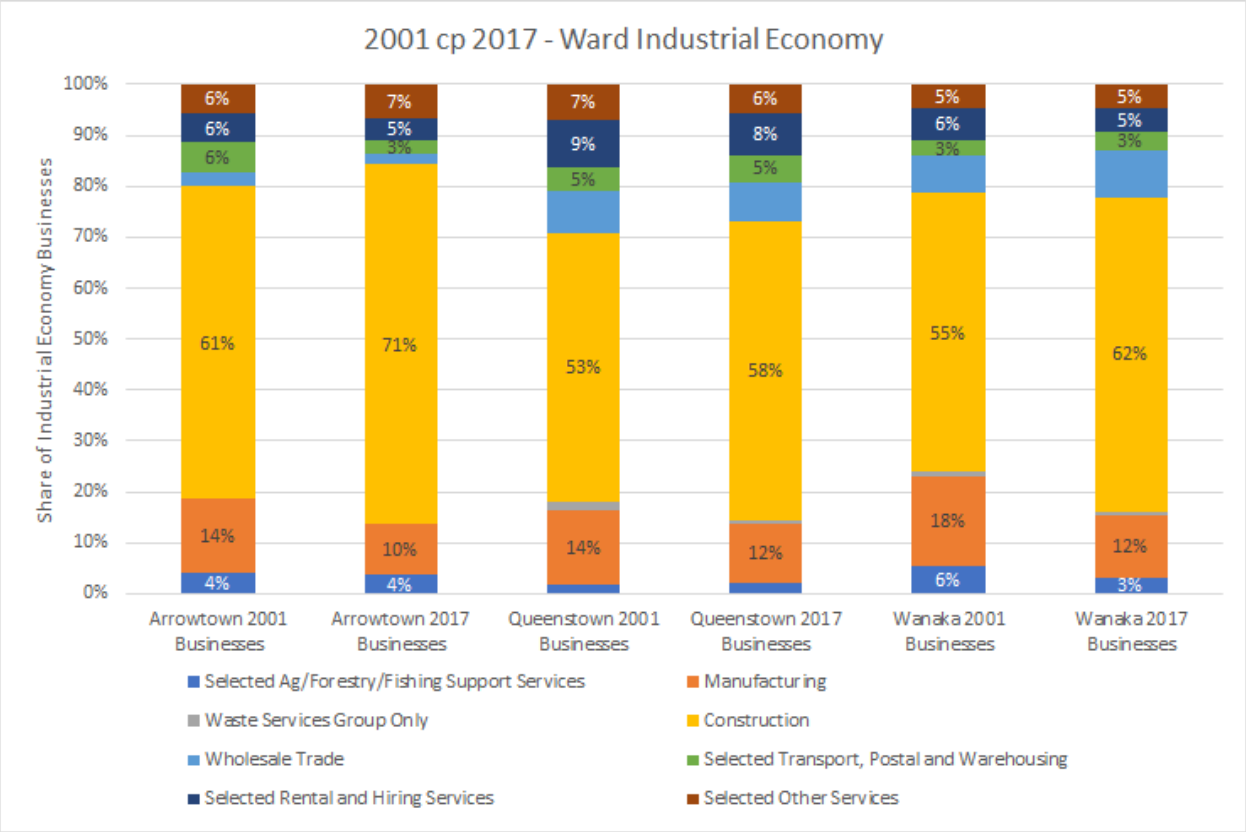
Figure 5.9 illustrates the changing structure of the industrial economy in each ward since 2001. It considers the mix of businesses by Division only. A key feature of this data is that structurally, Queenstown ward's industrial economy has been the most stable. Certainly, the Construction sector has grown in share with other sectors having a relatively smaller role, but this shift has been more moderate compared to in Arrowtown and Wanaka.

Figure 5.8 – QLD Industrial Economy Employment Count Growth by Ward 2001-2017

ANZSIC Division	Industrial Economy Selection	Arrowtown	Queenstown	Wanaka	Total QLD
Employment 2001					
A	Selected Ag/Forestry/Fishing Support Services	3	52	41	96
C	Manufacturing	26	284	126	436
D	Waste Services Group Only	-	31	7	39
E	Construction	90	740	243	1,072
F	Wholesale Trade	1	150	29	180
I	Selected Transport, Postal and Warehousing	3	115	41	159
L	Selected Rental and Hiring Services	1	111	15	127
S	Selected Other Services	4	109	37	150
Industrial Economy		129	1,591	538	2,258
Rest of Economy (all other ANZSICs)		359	7,534	2,139	10,031
Total Economy		487	9,125	2,677	12,289
Industrial Economy as Share of Total Economy		*26%*	*17%*	*20%*	*18%*
Employment 2017					
A	Selected Ag/Forestry/Fishing Support Services	16	63	51	130
C	Manufacturing	41	549	272	862
D	Waste Services Group Only	-	35	68	103
E	Construction	284	2,121	1,060	3,465
F	Wholesale Trade	18	375	181	573
I	Selected Transport, Postal and Warehousing	4	244	64	312
L	Selected Rental and Hiring Services	25	294	51	371
S	Selected Other Services	29	280	126	434
Industrial Economy		416	3,959	1,873	6,249
Rest of Economy (all other ANZSICs)		906	15,409	5,237	21,551
Total Economy		1,322	19,368	7,110	27,800
Industrial Economy as Share of Total Economy		*31%*	*20%*	*26%*	*22%*
Net Growth 2001-2017 (n)					
A	Selected Ag/Forestry/Fishing Support Services	13	11	9	34
C	Manufacturing	15	265	146	426
D	Waste Services Group Only	-	4	61	64
E	Construction	194	1,381	818	2,393
F	Wholesale Trade	17	224	152	393
I	Selected Transport, Postal and Warehousing	1	129	23	153
L	Selected Rental and Hiring Services	24	183	37	244
S	Selected Other Services	25	171	89	285
Industrial Economy		288	2,368	1,335	3,991
Rest of Economy (all other ANZSICs)		547	7,875	3,098	11,520
Total Economy		835	10,243	4,433	15,511
Net Growth 2001-2017 (%)					
A	Selected Ag/Forestry/Fishing Support Services	496%	22%	22%	35%
C	Manufacturing	56%	93%	116%	98%
D	Waste Services Group Only	0%	11%	829%	166%
E	Construction	217%	187%	337%	223%
F	Wholesale Trade	1375%	150%	528%	218%
I	Selected Transport, Postal and Warehousing	19%	112%	57%	96%
L	Selected Rental and Hiring Services	1831%	165%	252%	192%
S	Selected Other Services	586%	157%	244%	190%
Industrial Economy		224%	149%	248%	177%
Rest of Economy (all other ANZSICs)		152%	105%	145%	115%
Total Economy		171%	112%	166%	126%

Source: M.E, Statistics NZ Business Frame

Figure 5.9 - Share of Industrial Economy Businesses by Ward 2001 versus 2017



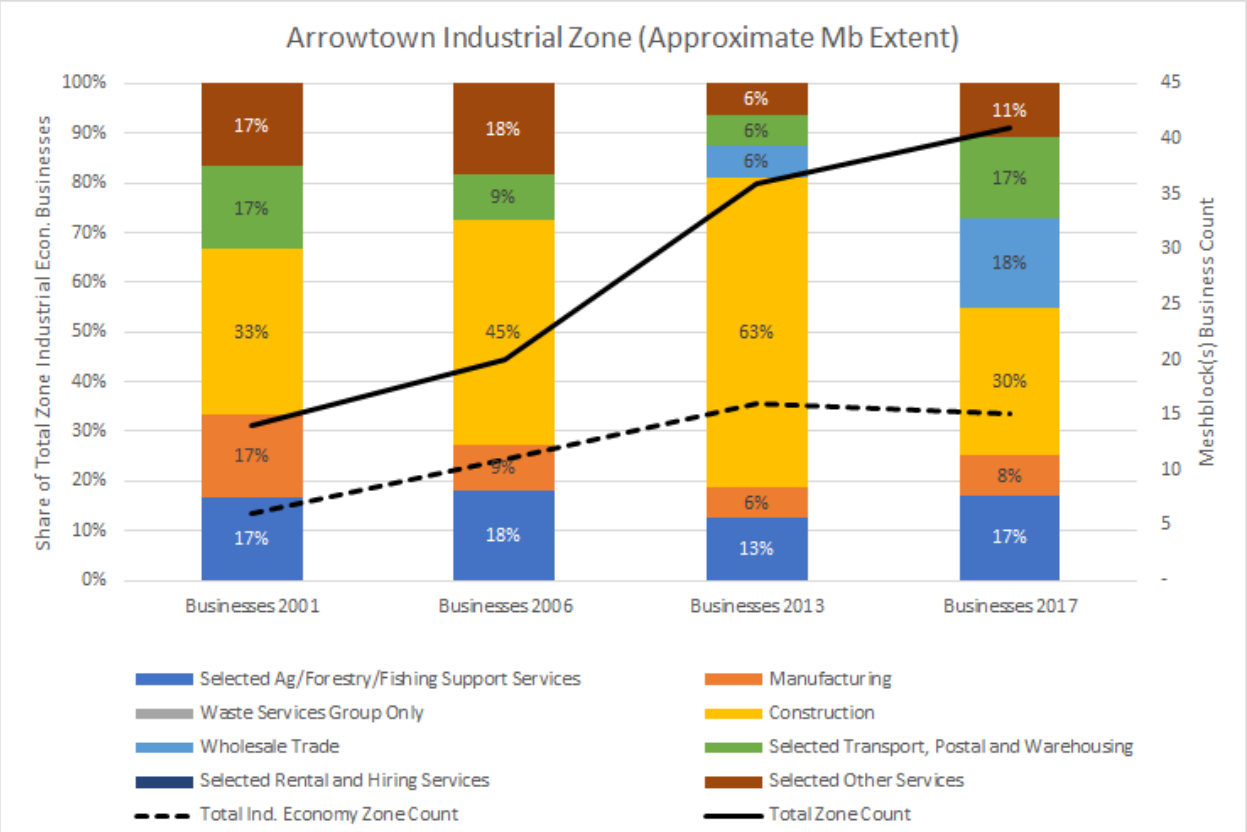
5.9 Recent Changes Stage 3 Review Industrial/Business Zones

This section focusses on what data is able to be analysed for the specific zones of interest for the Stage 3 review (Industrial, Industrial B and Business (Operative) zones). The analysis draws on the Business Directory data which is limited to whole meshblocks, so is not necessarily specific to the zone itself, but the results are considered sufficiently robust for the purpose of this report (to show general trends and the direction of change). As above, we have examined a time series of business and employment data, presenting a snapshot as at 2001, 2016, 2013 and 2017 to examine recent changes in both size and structure. Refer Section 4.4 for maps and explanation of the meshblock extents for this analysis relative to the zone of interest.

5.9.1 Arrowtown Industrial Zone

In the meshblocks containing the Arrowtown Industrial zone, the count of businesses included in the industrial economy definition has increased from 6 in 2001 to 15 in 2017 (growth of 152%). The count of industrial economy businesses peaked in 2013 and is now slightly lower (by one). In the meantime, there has been strong growth in total businesses in and around the zone (most likely attributed to the development of surrounding residential land rather than in the Industrial zone, and these including a range of home-based businesses). Over time, the structure of the industrial economy in these meshblocks has varied significantly. This is attributed to the very small size of the zone – small changes in businesses can have a marked effect on the structure. The Arrowtown industrial zone may continue to demonstrate different mixes of activities in the future (non-stable) as businesses come and go (Figure 5.10).

Figure 5.10 – Recent Changes in Industrial Economy Business Counts – Arrowtown Industrial



Industrial economy employment in the meshblocks containing the Arrowtown Industrial zone has also grown in line with business growth. It has grown from just 11 workers to 54, but also previously peaked in 2013 (77 workers). This is net growth of 42 workers or 370%. As with the structure of businesses, the structure of employment over time has varied significantly. Construction sector employment for example has varied from 73% of total industrial economy meshblock employment in 2006, to just 29% in 2013 and now 40% in 2017.

5.9.2 Glenda Drive Industrial

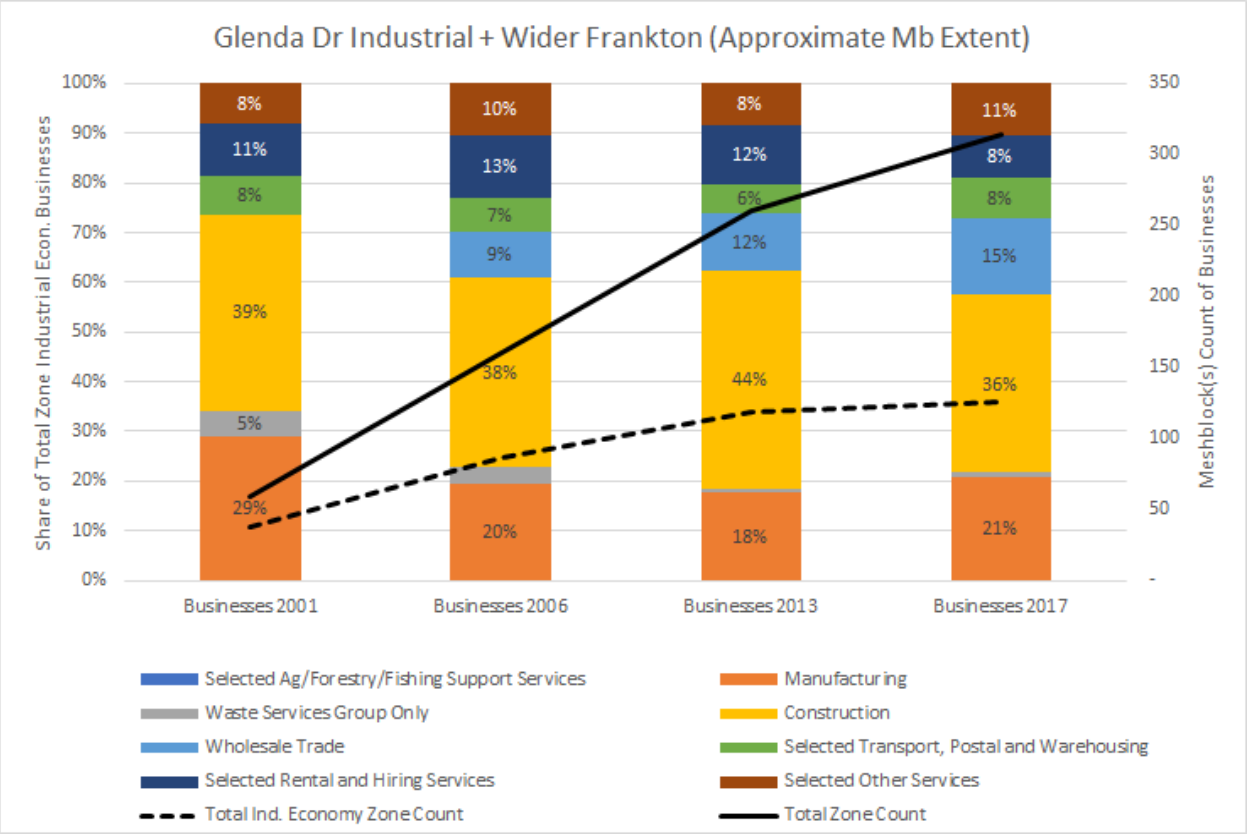
Care is needed with this analysis as the meshblocks containing the Glenda Drive Industrial zone also include all of Remarkables Park, Frankton Flats A and Frankton Flats B zones, although industrial economy employment not expected to feature in Remarkables Park or the Frankton Flats A zones. The count of businesses included in the industrial economy definition has increased from 38 in 2001 to 126 in 2017 (growth of 88 or 231%). The 2017 count of industrial economy businesses is the highest since 2001, indicating a steady rate of growth as this zone 'filled-up', albeit that there has been very little change since 2013. This reflects the very limited vacant capacity left in Glenda Drive. It is likely that the count of industrial economy businesses in Glenda Drive will not increase much going forward, although it is possible that it may decline if sites are redeveloped for other activities enabled by the zoning (or through decision making).

At the same time, there has been strong growth in total businesses in and around the zone (attributed to the development of surrounding zones included in the meshblock extent). This highlights that the location in which the industrial zone now finds itself, has changed rapidly. This may have increased potential for

reverse sensitivity issues and has certainly increased the traffic in the general area (with Glenda Drive now connecting to Remarkables Park around the end of the airport runway).

Over time, the structure of the industrial economy in these meshblocks has been relatively consistent. This means that as it grew, the zone attracted more businesses of a similar type. This is an important observation as it indicates that the businesses that enter a new zone early are likely to play a key role in determining what sort of businesses will enter the zone in the years following. It is therefore important that decision making upholds the intent of the zone early on to avoid setting a precedent that cannot be reversed. Going forward, the structure of the zone is expected to stay similar to that in 2017. Price may be one factor that influences this outcome, with demand continuing to rise. When Coneburn Industrial Zone starts selling sites/leases to the market, some compatible industrial businesses in Glenda Drive might consider a shift if the prices were relatively more affordable. (Figure 5.11).

Figure 5.11 – Recent Changes in Industrial Economy Business Counts – Glenda Drive Industrial



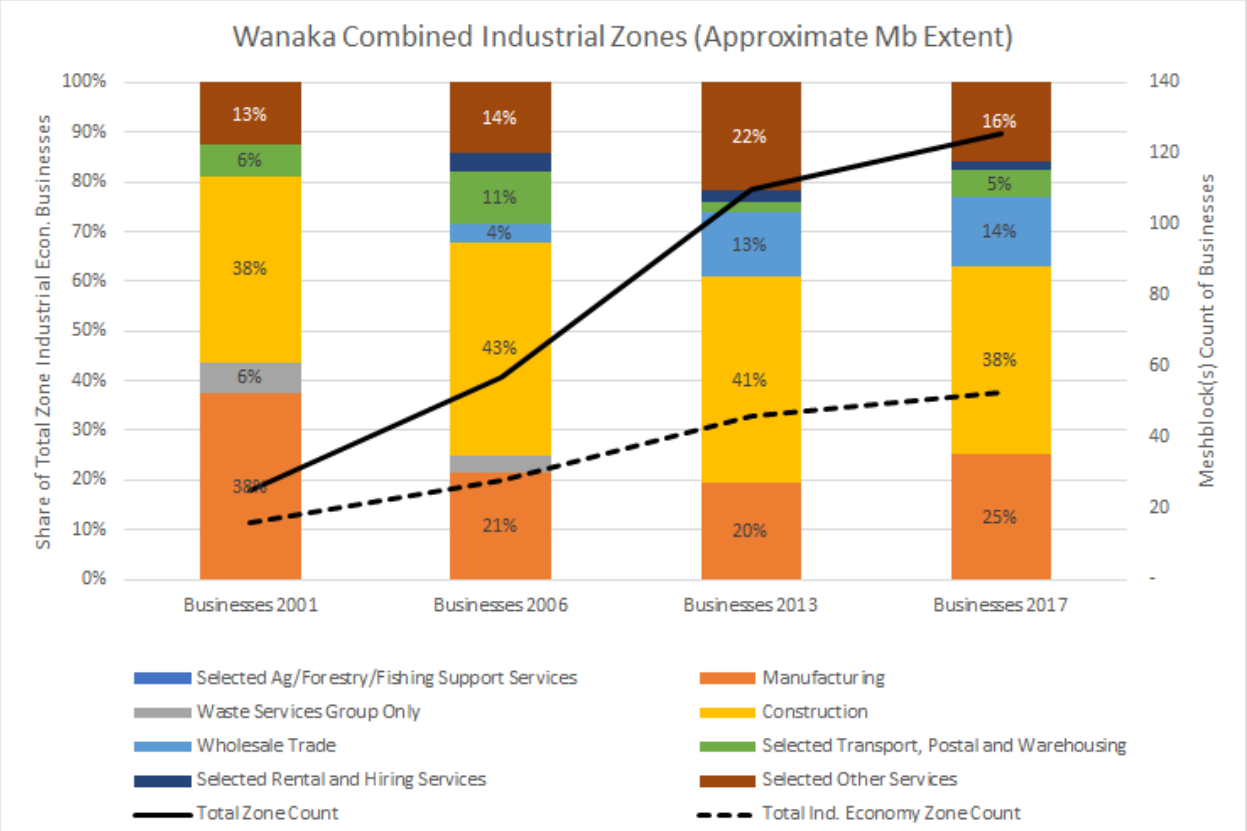
Industrial economy employment in the meshblocks containing the Glenda Drive Industrial zone has also grown more or less in line with business growth. It has grown from 212 workers to 1,261 between 2001 and 2017 (net growth of 1,049 workers or 495%). The structure of employment over time varied significantly between 2001 and 2006 and again to 2013, but the structure since 2013 has remained similar (stable). Construction sector employment for example has varied from 50% of total industrial economy meshblock employment in 2001, to 60% in 2006 and 37-40% since 2013.

5.9.3 Wanaka Industrial

In the meshblocks containing the Wanaka Industrial and Industrial B zones, the count of businesses included in the industrial economy definition has increased from 16 in 2001 to 53 in 2017 (growth of 37 businesses or 230%). 2017 is the current peak, indicating steady growth (particularly to 2013) as these zones have filled up (first the Industrial and now starting with the Industrial B). In the meantime, there has been strong growth in total businesses in and around the zone. Some of this growth will be attributed to the development of surrounding residential land on Golf Course Road and these including a range of home-based businesses. The development of the medical centre is also included in this time period. Growth of non-industrial economy businesses within the zones is also a contributor. There has not yet been a lot of residential development on the boundary of the industrial zones so reverse sensitivity has not been an issue but is something that may change as that adjacent greenfield land is developed.

Over time, the structure of the industrial economy in these meshblocks has been relatively stable since 2006. As with Glenda Drive, growth has attracted a similar mix of businesses. The combined Wanaka Industrial and Industrial B zones may be expected to maintain this structure going forward, subject to any slight variations caused by further occupation of the Industrial B zone which has a slightly different focus. This will influence the average mix more over time as it is currently weighted more towards the Industrial zone business mix. Wholesaling may play a bigger future role for example (Figure 5.12).

Figure 5.12 – Recent Changes in Industrial Economy Business Counts – Wanaka Industrial Zones



Industrial economy employment in the meshblocks containing the Wanaka Industrial and Industrial B zones has also grown more or less in line with business growth, although has been stronger since 2013. It has

grown from just 46 workers to 218 between 2001 and 2017 (net growth of 172 workers or 373%). The structure of employment has been more constant since 2013 but varied prior to that. Construction sector employment for example has varied from 37% of total industrial economy meshblock employment in 2001, to 45% in 2006 and back down to 36% in 2013, rising slightly to 40% in 2017. Wholesale Trade employment was 8% in 2013 (previously just 1% in 2006), and this increased to 14% in 2017, although the number of wholesale businesses only increased by 1. When looking at these employment trends, it seems more likely than not that the average structure could continue to adjust in the years to come – with Wholesaling playing a bigger relative role – as the Wanaka B zone further develops.

5.9.4 Gorge Road Business (Operative)

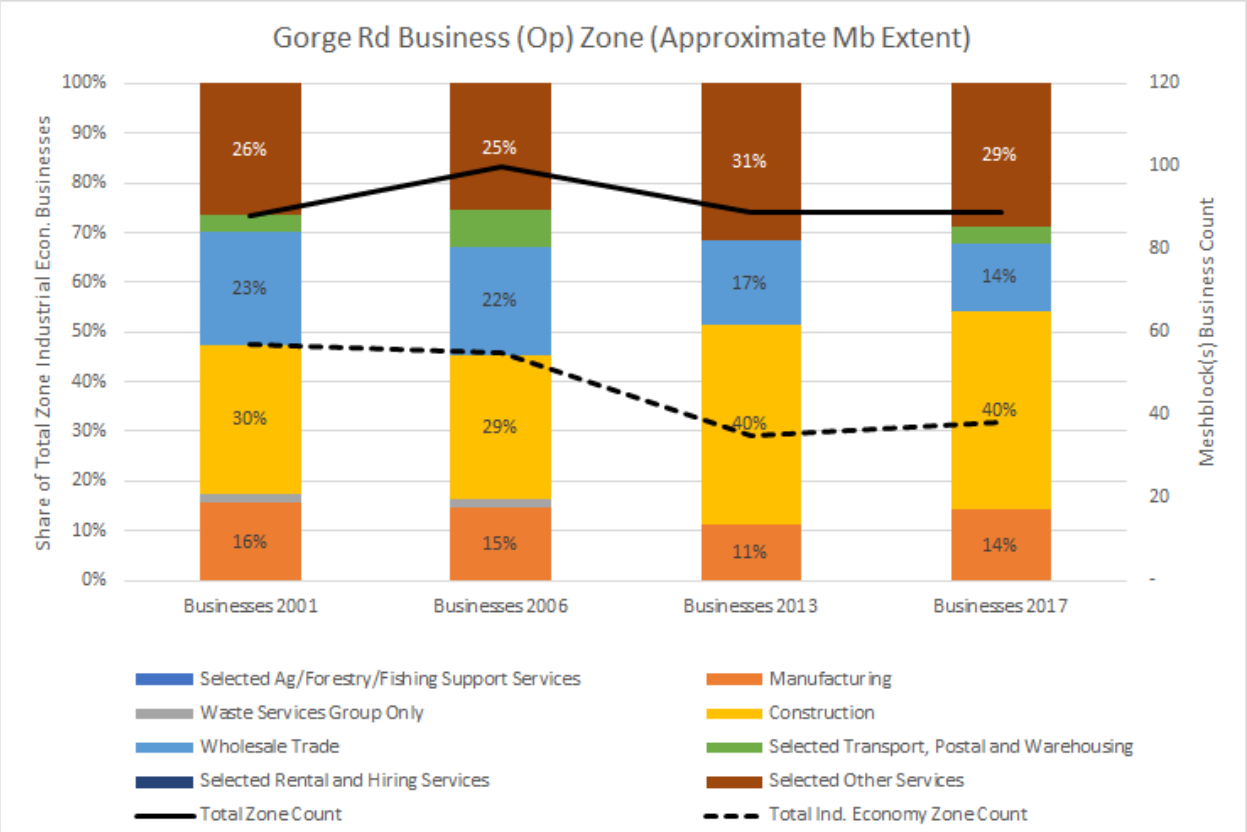
In the meshblock containing the Gorge Road Business (Operative) zone, the count of businesses included in the industrial economy definition has decreased from 57 in 2001 to 38 in 2017 (decline of 19 businesses or -33%). The drop occurred between 2006 and 2013 (loss of 20 businesses), with only 3 additional industrial economy businesses entering between 2013 and 2017. Given that this zone is largely occupied and is expected to have been for a portion of the time period analysed, it is not clear if this drop has been evident within the Business zone itself, or in the Business Mixed Use Zone area which is also captured in the meshblock to the south. It is relevant that while industrial economy businesses were declining between 2006 and 2013, other economy businesses in the meshblock were rising – so potentially this means that industrial businesses have been displaced.

However, since 2013, the count of both industrial economy businesses and total businesses has been steady – indicating that the wider area was more or less fully occupied by 2013.

These changes are reflected in the structure of the meshblock. The meshblock lost some of its diversity when the count of industrial economy businesses dropped after 2006. Specifically, it lost all four businesses in the selected Transport, Postal and Warehousing Division. Since 2013, one business in this Division has entered the meshblock. Overall, M.E expects a very stable mix of industrial economy businesses in this location going forward, due largely to the fact that it is largely occupied/developed and the area surrounding it has also reached a point of stability (Figure 5.13).

Industrial economy employment in the meshblock containing the Gorge Road Business zone has also changed more or less in line with business change (decline and then stability since 2013). In net terms, it has decreased from 313 workers to 204 between 2001 and 2017 (net loss of 127 workers or -38%). Selected Other Services employment has been increasing its share of the total since 2006. It is not clear if this reflects what has occurred specifically inside the business zone, or activity elsewhere in the meshblocks (Business Mixed Use Zone). Construction sector employment has been as high as 52% of total industrial economy employment in 2006, but currently accounts for 46% (down from 47% in 2013).

Figure 5.13 – Recent Changes in Industrial Economy Business Counts – Gorge Rd Business



6 Future Changes to the Industrial Economy

This section considers future changes to the QLD industrial economy. It examines future economic growth projections, trends and drivers at the national level that may impact on what happens locally, and local trends and pressures that may be influencing the location of industrial activity and its ongoing viability/sustainability in industrial zones. We also look at what influence the Council's economic strategy could have and what that might mean for industrial zone planning and provisions.

6.1 Business as Usual Demand Projections

As part of the Business Development Capacity Assessment (BDCA) 2017 project (published 2018), QLDC commissioned customised economic projections for the district at a ward level. The projections were developed using M.E's Economic Futures Model (EFM) – also discussed previously in Section 3. The projections assume a business as usual future and consider a range of growth drivers including population growth, tourism growth, multi factor productivity change and rates of gross fixed capital formation. The employment projections in the EFM underpin the BDCA modelling.

The population and tourism projections used in the EFM at the time were those provided by QLDC – being the Rationale projection developed in 2017. Emphasis was given to the Council's Recommended growth projection, which (for population) sat between the StatisticsNZ medium and high growth series.

At the end of 2018, QLDC commissioned an update of the Rationale growth projections. Rationale have revised their recommended growth outlook to a much higher rate of future growth. This latest projection now sits well above what was the High projection at the time that the EFM was run. This is summarised in Figure 6.1.

The EFM has not been updated to reflect the latest projections and although the EFM included a high growth scenario (including the recommended growth scenario at the time), the change in population growth rate alone would mean that economic projections would be higher again. This section of the report relies on the EFM High (2017) employment projections, but it is important to recognise that these are conservative and will under-represent future employment growth according to current thinking on future growth.

Figure 6.2 shows the projected growth of QLD industrial economy employment for each ward. As 2017 employment data is now available, the EFM growth (n) has been rebased to 2017 actual employment – keeping the quantum of growth the same. The EFM reports employment at the 48-sector level. In order to isolate the industrial economy employment, the current industrial economy share of total employment in each sector (and each ward) in 2017 has been held constant over time. This assumes that the structure of activity within each (48) sector stays the same over time (which is considered reasonable). As some sectors are expected to grow faster than others, the aggregate result is that the industrial economy

employment continues to account for slightly greater share of total employment over time in each ward. This is consistent with historical trends. For example, between 2001 and 2017, the industrial economy's share of employment in the Queenstown ward increased from 17% to 20%. Out to 2048, the EFM suggests it will increase to a 22% share. Similarly, in Wanaka, the historical share increased from 20% to 26%, and by 2048 the EFM suggests it will account for a 29% share. In other words, under a business as usual future, the industrial economy will play an increasing role relative to total economic activity.

Figure 6.1 – Comparison of QLDC Recommended 2017 and 2018 Population Growth Projections

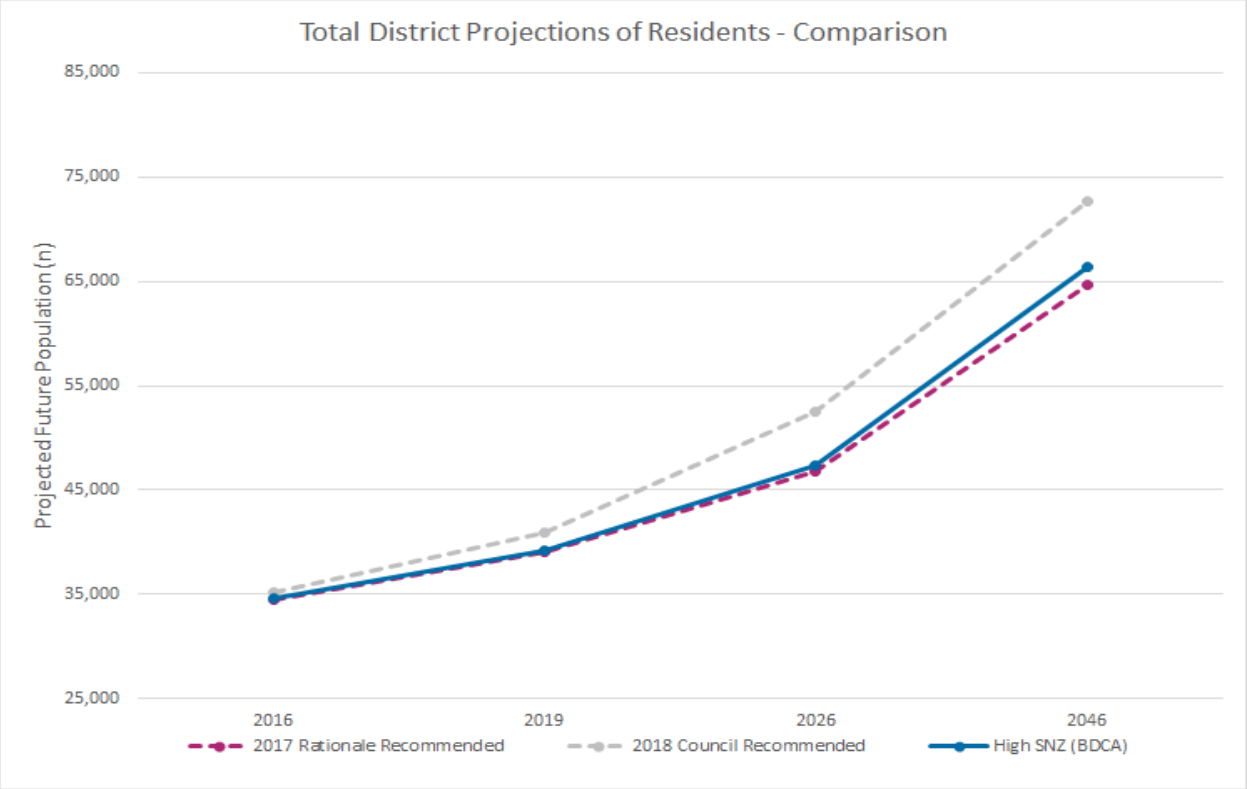
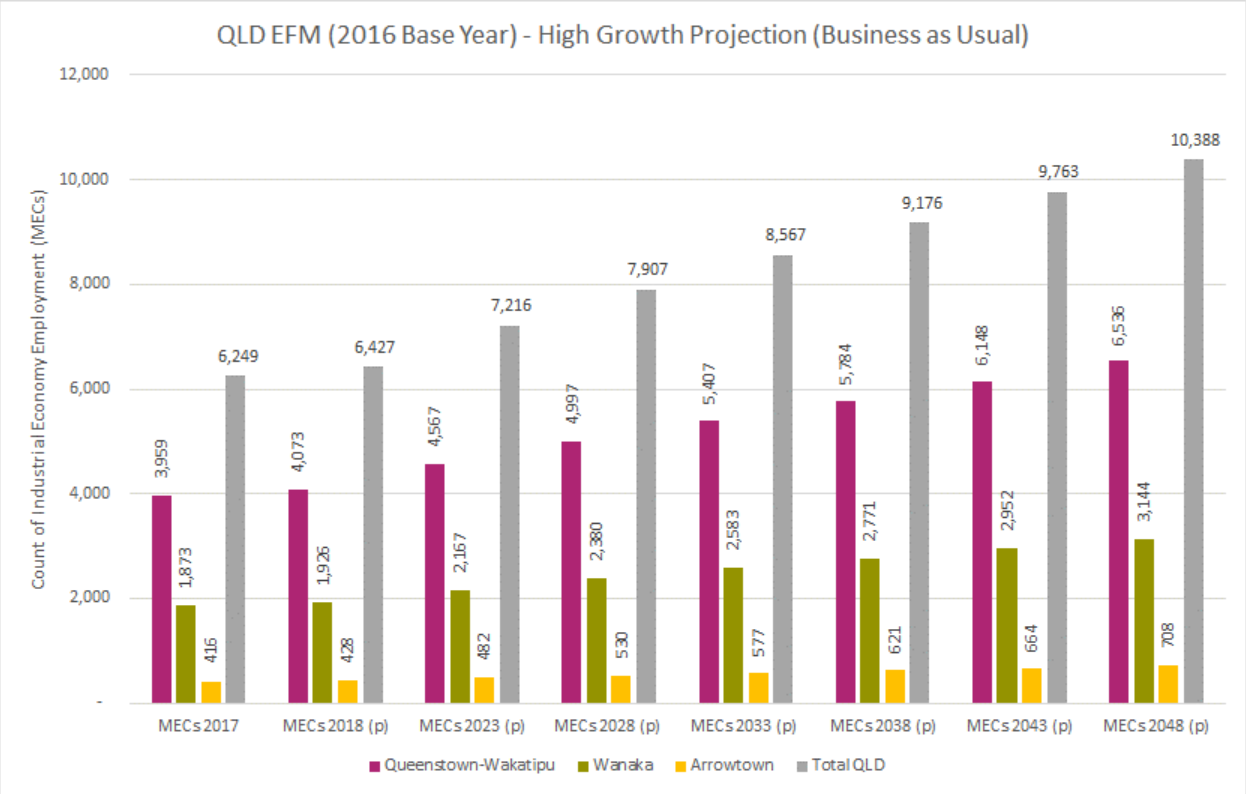


Figure 6.2 shows that between 2018 and 2028 (the medium-term future), industrial economy employment in the Queenstown Ward will increase by an estimated 920 workers (23%) and between 2018 and 2048 (the long-term) it will increase by an estimated 2,460 workers (60%). These results are likely to be conservative. Note that this is total ward industrial economy growth so covers both rural and urban locations and is not limited to the share that may locate (or seek to locate) in an industrial zone.

Between 2018 and 2028 (the medium-term future), industrial economy employment in the Wanaka Ward will increase by an estimated 450 workers (24%) and between 2018 and 2048 (the long-term) it will increase by an estimated 1,220 workers (63%). Again, these results are likely to be conservative. Over the total district, the industrial economy may conservatively be expected to grow 1,480 workers by 2028 and 3,960 workers by 2048.

Figure 6.2 – Estimated Industrial Economy Employment Projections by Ward (EFM High Scenario)



It is of value to consider the projected demand for industrial zone land that is linked specifically to the industrial economy in each ward (as opposed to other sectors which may seek to locate in industrial zones). This is an important question that Council is trying to grapple with. However, this is very difficult to project with any certainty. We note that the BDCA considered demand for industrial category land and floorspace in urban business enabled zones (from all sectors of the urban economy) but did not attempt to direct that demand to specific zones in each ward. With this caution in mind, the analysis below is presented as a loose guide of potential demand growth only in industrial zones.

Figure 6.3 shows the projected growth of industrial economy employment (High EFM growth outlook) in each ward that *may* seek to locate in an industrial zone (or the Business (operative) Zone) in future (i.e. industrial zone demand arising from the industrial economy). This is approximate only and relies on the previously analysed industrial economy employment (2017) in the meshblocks that contain the Industrial (A) zones in Glenda Drive and Arrowtown, the Industrial and Industrial B zones in Wanaka and the Gorge Road Business Zone. There are some limitations to those estimates as the meshblocks are not specific to the zone extents.

On the basis that the current snap shot of the share of industrial economy employment in each ward that falls into these respective zones is representative of the propensity of industrial economy businesses (within each 48 sector) to also seek an industrial zone location in the future, we have held these shares constant (at the sector level). Because some industrial economy sectors are growing faster than others, the aggregate result is that the industrial zone share of industrial economy employment decreases slightly over time in each ward. This indicates that the industrial economy activities that don't tend to seek an industrial zone location are growing faster than the ones that do. This makes sense when considering the

House Building sector as we know that they tend to be based in residential zones (home registered tradesmen) and account for large share of industrial economy employment and growth.

However, this is inconsistent with historical trends. For example, between 2001 and 2017, the industrial zones' share of industrial economy employment in the Wanaka ward increased from 8.6% to 11.7%. Out to 2048, the EFM (and our assumptions) suggests it will decrease to a 10.9% share. Similarly, in Arrowtown, the historical share increased from 8.9% to 12.9%, and by 2048 the EFM (and our assumptions) suggests it will account for a 12.1% share. In other words, under a business as usual future, the industrial zones will play a decreasing role relative to total industrial economy activity.

On the one hand, this might reflect that the zones reach capacity and so cannot keep absorbing an increasing share. On the other hand, it does not account for remaining capacity in the Industrial B zone in particular as well as the Coneburn and Ballantyne Mixed Use Zone and what influence this supply might have when they become available for development. We have also not factored in latent demand for industrial zone locations (which would be most applicable in Queenstown as vacant capacity in Queenstown industrial zones has rapidly diminished). Last, the 2017 shares of industrial economy employment that are located in the industrial zones reflects:

a) The mix of activities enabled in the relevant industrial zones (which Is not limited to the industrial economy activities), and

b) The ability of industrial economy activities to compete for space in those industrial zones relative to other enabled (or approved) activities.

c) This is important as the share of industrial economy businesses that are located in industrial zones would be expected to be higher today if the zones were less permissive of a range of activities and there was more capacity available exclusively for industrial economy businesses. Elsewhere in this report, it has been shown that industrial economy business and employment counts are accounting for a decreasing share of total zone activity over time.

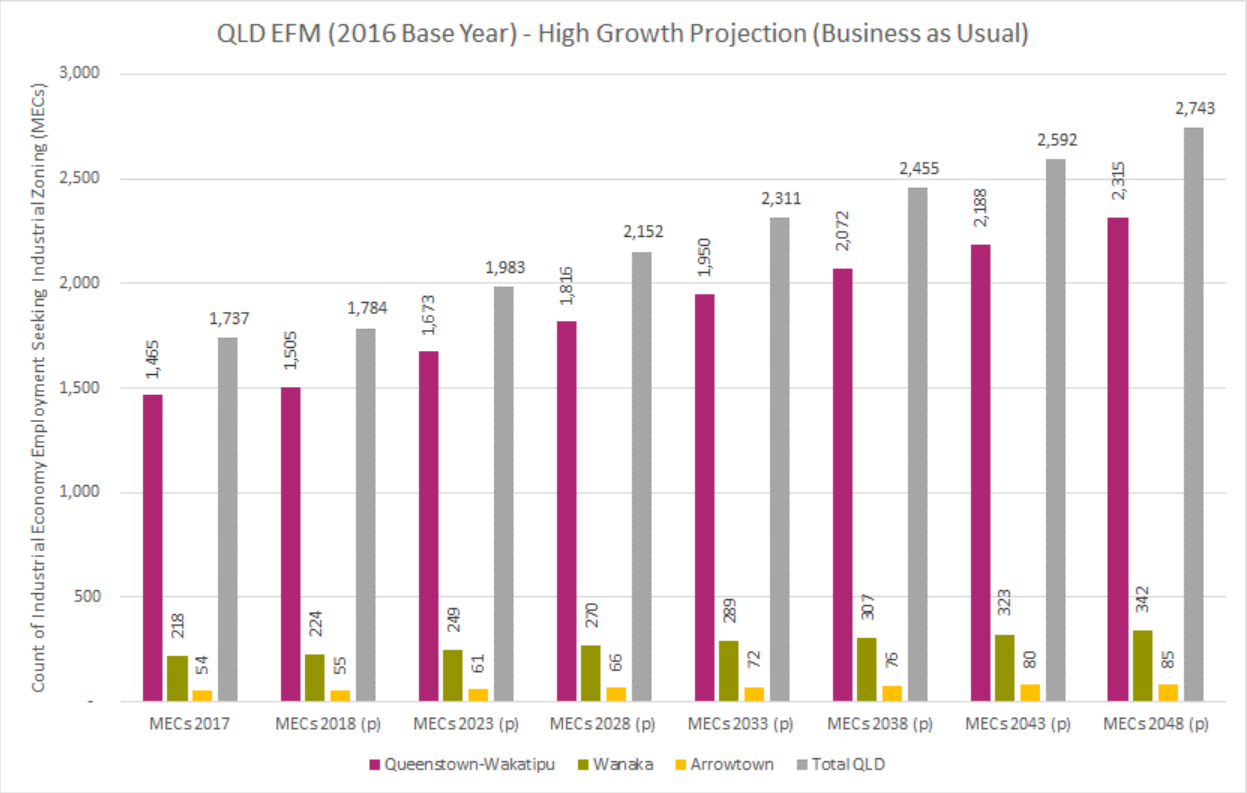
d) Rather than projecting *demand* (which should be unconstrained), we are effectively projecting *supply* (which has been constrained).

Notwithstanding these limitations and assumptions, Figure 6.3 shows that between 2018 and 2028 (the medium-term future), industrial economy industrial zone employment in the Queenstown Ward could increase by an estimated 310 workers (21%) and between 2018 and 2048 (the long-term) it could increase by an estimated 810 workers (54%). These results are likely to be conservative given the new Council growth projections and should be considered as the minimum *demand* (as they imply that industrial economy businesses only take up the same portion of industrial zone capacity as they do today. This would change when Coneburn comes on-line as that zone is less permissive of other activities than the industrial zone).

Between 2018 and 2028 (the medium-term future), industrial economy industrial zone employment demand in the Wanaka Ward could increase by an estimated 50 workers (20%) and between 2018 and 2048 (the long-term) it will increase by an estimated 120 workers (53%). Again, these results are likely to be conservative (because the growth projections are now higher than modelled) and because they more closely reflect projected supply, they should be treated as the minimum *demand*. Over the total district,

the industrial economy industrial zone minimum '*demand*' may conservatively be expected to grow 370 workers by 2028 and 960 workers by 2048.

Figure 6.3 – Estimated Industrial Economy Employment Projections in Selected Ind. Zones (High)



6.2 Macro-Economic Trends Impacting on the Industrial Economy and Industrial Land

This section considers macro-economic trends that may be expected to influence QLD's industrial economy in the coming years. This is relevant given that the EFM projections (considered above) reflect a business as usual future, so would not pick up any new industrial sector trends that may be coming QLD's way (if indeed likely).

Industrial activity forms an important component of New Zealand's economy. It provides key stages of the value chain in the processing and export of a large share of the output of the economy's agricultural base.

The share of total activity within the industrial sector has gradually declined through time from a combination of declines within the sector and faster growth within New Zealand's tertiary sector. These are driving gradual changes in the structure of the national economy to an increasing services-sector base. Despite this, the industrial sector still accounts for a large share of the country's employment and has strong linkages to activity within other parts of the economy, making it fundamental to the growth in other

key sectors. Industrial activity is a major driver and enabler of exports, which are critical for New Zealand's economic growth[22].

There are a number of both exogenous global and international factors and endogenous national conditions that have shaped change within New Zealand's industrial sector through time. These affect the distribution of the sector nationally and the consequent nature and scale of industrial location demand locally.

Global rationalisation of supply chains and manufacturing operations has seen growth in the size of offshore foreign firms serving international markets. This has consequently increased the pressure for New Zealand exporters to sufficiently upscale to competitively serve growing key markets. Growth in international connectedness and the rise of developing economies has also increased scale economies in supply chains driving further price competitiveness. This has acted to increase competitive pressure on New Zealand exporters through their comparative disadvantages of distance from main trading markets.

In response to these global trends, New Zealand exporters, a core part of the industrial sector, are increasingly seeking large sites in the key urban centres of New Zealand. Location within main cities provides firms with crucial access to main international infrastructural connections (ports)[23]. It also enables their required upsizing through access to the labour market (including skilled trades workers[24]) and other firms that provide fundamental inputs. The larger population base of main cities also enables many firms to develop their presence supplying the domestic market, which can then be used as a base platform from which to move into larger offshore markets (MBIE, 2018).

The ability of New Zealand's industrial sector to respond to these exogenous influences is affected by a number of core factors within New Zealand, which further influence the national distribution of the industrial sector. The small size of the domestic market has provided a limited platform from which industry can develop to serve the larger overseas markets. This is compounded by the geographic distribution of urban activity across a number of urban centres that are geographically dispersed and often separated by major geographic features.

A number of more localised conditions also emerge for industry within regional economies that affect the national distribution of industrial activity and its competitiveness. Key amongst these are infrastructure connections which have a significant influence on the efficiency of industry[25]. International connections have often driven a movement of industry towards larger centres, although identified constraints in infrastructure to support growth may be limiting the performance of industry within these centres (MBIE, 2018). Growth pressures on the affordability of housing within a number of New Zealand's key centres are also emerging as constraints for the industrial labour pool (EMA, 2016-2018).

Increased competitiveness within global markets together with the rise of cheaper suppliers has begun to generate changes to the types of exports produced by New Zealand, which has flow-on effects on the corresponding types of industrial activity. Many manufactured exports are now much cheaper to produce

[22] Ministry of Business, Innovation & Employment (MBIE), 2018 *Beyond commodities: Manufacturing into the future,* New Zealand Sectors Report Series.

[23] Rationalisation within international global commodity chain logistical structures further reinforces the need to locate within larger cities as visitation to national economies is concentrated into fewer ports.

[24] Sourcing skilled trades workers has been identified as an important labour requirement by New Zealand's industrial sector firms.

[25] This is a common theme identified within a number of the EMA submissions to central and local government.

in lower cost labour markets offshore as well as it often being cheaper to import fully manufactured commodities rather than having final assembly stages of the supply chain within New Zealand (e.g. car assembly). National strategies are consequently increasingly calling for a shift toward higher value capture within already established commodity chains as well as the development of higher value products. This reflects a shift away from heavy industry towards light industry.

Recent research has identified large potential for further value capture within New Zealand's core agricultural export chains[26]. A high share of New Zealand's agricultural exports has low levels of processing, some of which have further processing prior to final consumption occurring within offshore markets. Growth in this area is likely to generate significant demand within New Zealand's industrial sector over the medium to longer-term through the further processing and value-added of these commodities. This is also occurring through the development of new products that have higher levels of final processing (e.g. dairy product-based smoothies).

Growth in value-added products is driving substantial demand within New Zealand's food manufacturing sector[27]. There have been a number of opportunities identified for further growth in this sector, underpinned by New Zealand's large agricultural base and as a dominant dairy product supplier within the south-east Asian area. Growth in demand is also likely to be felt in other areas of the industrial sector due to the upstream linkages within the sector.

Growth and change in demand within end markets and the diversification of those markets[28] are likely to drive much of this growth. Rapid demand growth within markets across much of southeast Asia[29] and the maturation of demand within existing markets drive both demand for bulk production of standardised lower value-added products and the development of more specialised higher value-added food products[30]. This includes the emergence of newer products, particularly focussed around sustainable food production chains[3132].

The type of growth within the food and beverage industrial sector has generated increased demand for research and development (R&D)[33] and ICT inputs to the sector. Both of these inputs further encourage the concentration of activity into larger firms to achieve the necessary scale economies in the application of R&D and ICT resources (and therefore larger centres). Growth in food and beverage manufacturing concurrently facilitates the development of smaller industrial firms through the supply of niche products.

---

[26] Coriolis, 2018 *Emerging Growth Opportunities in New Zealand Food & Beverage,* Final Report, prepared for Ministry of Business, Innovation & Employment, New Zealand Trade & Enterprise and Ministry for Primary Industries.

[27] Coriolis, 2012 *Driving growth in the Processed Foods sector,* Final Report, prepared for Ministry of Business, Innovation & Employment, New Zealand Ministry of Foreign Affairs & Trade, Ministry for Primary Industries and New Zealand Trade & Enterprise.

[28] New Zealand's agricultural exports are distributed across an increasingly large number of end markets. This compares to historically high levels of concentration to the United Kingdom, Australia and U.S.A. markets.

[29] Coriolis, 2015 *Opportunities for New Zealand Dairy Products in South East Asia,* prepared for Ministry of Business, Innovation & Employment, New Zealand Trade & Enterprise, New Zealand Foreign Affairs & Trade and Ministry for Primary Industries.

[30] Coriolis, 2018.

[31] EMA, 2018 *Business Plus,* Issue 161, August 2018.

[32] Plant & Food Research, 2018 *The Evolution of Plant Protein: Assessing Consumer Response,* prepared for Ministry for Primary Industries.

[33] ManufacturingNZ, 2017 *ManufacturingNZ Election Manifesto – Snapshot.*

A number of other areas of industrial growth have also been identified at the national level. These include machinery and equipment manufacturing, chemicals and refining manufacturing, fabricated metal product manufacturing, and the screen production sector. With the exception of the latter, these sectors are also significantly influenced by the need for a main city, central location. This is because they are largely driven by and require direct access to overseas markets and large labour pools.

The screen sector has been identified nationally as a high value growth area for New Zealand that is likely to generate demand for industrial activity (in addition to the demand predominantly in the services sectors). The sector is currently small but is being facilitated by central government grants due to the identified high economic returns on investment and future growth potential. Growth in opportunities within this sector are also predominantly export-focussed with the larger economic returns generated by international films[34].

The greatest area of demand within the screen sector has been identified within the production and post-production stages[35]. Many of these activities (e.g. particularly sound stages) are likely to seek an industrial location, particularly larger sites, to undertake the required activities. Nearly all of New Zealand's existing sound stages are located in industrial zones. They typically require large sites containing large warehouse style buildings and yard storage and manoeuvring areas, but with good transport links). Unlike many other industrial growth sectors, the screen sector's location is not predominantly driven by access to major national infrastructure. A core location driver is the area-specific location of filming.

The construction sector is growing strongly at the national level, primarily to meet the need for residential housing. While a large portion of this sector is trade based and not dependent on industrial zone locations, component manufacturing (steel, sheet metal, joinery, trusses etc) are industrial zone focussed. Another emerging trend is the offsite construction of houses (pre-fabrication). This is more apparent in many overseas markets where houses are built in large warehouses/factories, partially disassembled and then reassembled quickly on site. With the construction sector constantly looking at ways to deliver housing more efficiently and cost effectively, this might become a growing feature of New Zealand's construction industry. It has already started to appear with some businesses building kit-set homes, or small (tiny) houses that can be trucked short distances.

So, what is the potential future influence of these national (macro level) trends on QLD's industrial economy?

- Large portions of industrial sector growth will be aimed at large centres, so will not be attracted to districts like QLD.
- Food and beverage sector growth for the export/domestic market may be more relevant and focused on wine production as opposed to the dairy sector. Only off-site wine production/bottling would place demand on industrial zones (with many processing at the vineyard). The craft beer industry is on the rise nationally and internationally and this could be expected to continue growing in QLD (it is currently a niche industry).

[34] McWha, V., Niemi, M., Moore, D. and Harley, R., 2018 *Evaluating the New Zealand Screen Production Grant,* prepared for the Ministry of Business, Innovation & Employment and the Ministry for Culture and Heritage, March 2018.

[35] Ministry of Economic Development, 2012 *Discussion Paper: Growth and Dynamics of the New Zealand Screen Industry,* April 2012.

- Film sector infrastructure (sound stage) may be a viable opportunity for QLD given a range of location attributes and a skilled workforce already supporting film activity that takes place in the district. There is evidence of more districts outside of Auckland and Wellington trying to attract or facilitate sound stage development in light of strong demand and insufficient capacity in the main centres – i.e. the Bay of Plenty Region is currently developing a feasibility study/business case for a sound stage.
- Off-site manufacturing (pre-fabrication) of dwellings (or even self-contained worker accommodation cabins) could emerge in QLD. This could be relevant for infill housing demand or demand on small sites and would be likely to seek an industrial zone location. The demand for bespoke/high end homes is expected to continue to dominate the market.
- Otherwise, the small scale of the domestic market within QLD combined with limited access to an industrial labour pool and constrained freight and logistics (reliant on road transport at present) means that QLD would not expect to move towards large scale industrial activities. Rather, small scale and niche manufacturing will continue to be more viable. Most likely that manufacturing will continue to be limited to businesses supplying local consumers and service oriented industrial activities, particularly for the construction sector.
- QLD businesses (and consumers) will continue to be dependent on inter-regional imports for many products.
- In our view, a business as usual growth outlook is most relevant going forward, but with potential for a few new industries to emerge. These would be limited to very small numbers of businesses so would not greatly influence the overall structure of the industrial economy in the future (but could add to its diversity).

6.3 QLD Economic Development Strategy

M.E has reviewed the QLDC Economic Development Strategy 2015 to assess the degree to which this might impact on or influence future changes in the industrial economy in the district. Key points from that review are as follows:

- The primary objectives of the strategy are to enhance the quality of the natural, business and living environment and facilitate the growth of knowledge-based sector. Knowledge based sectors include education, health, screen and some professional services. These are not industrial businesses per se (i.e. the strategy identifies these as businesses that "electronically deliver their product", "be in the service sector, that also has comparatively low exposure to transport costs for production inputs," and "usually operating with limited number of staff" with higher salaries.
- Supporting objectives are to attract high contributing visitors and generate higher levels of expenditure from visitors and develop a long-term, sustainable approach to investing in infrastructure that will enable future growth.
- A more general aim to support a diverse economy. This is one of the community outcomes identified through public consultation. The strategy specifically seeks to move away from a construction and tourism dominated economy.

- Overall, the Economic Development Strategy offers little support for growing or diversifying the industrial economy as identified for the purpose of this report.
- However, consistent with Section 6.2 above, the strategy does identify potential for long term growth of screen production in the district, stating a number of locational advantages offered by the district. This is relevant to the extent that film infrastructure may seek a location in an industrial zone. The following are excerpts on the screen industry opportunity.

Further growth depends critically on marketing and developing relationships across New Zealand and overseas, in order to raise the profile of the District's advantages and to continue to attract productions. Promotion, offshore representation and facilitation are provided by Film Otago Southland, that works closely with other regional film offices and Film New Zealand.

The absence of a screen production studio has been raised as a potential constraint to industry growth, and work has been undertaken on exploring the feasibility of and options for a studio. The need for a studio has not been clearly demonstrated and private investment has not been attracted to date. Other options suggested include a simpler facility to enable indoor shooting in the event of adverse weather or a creative centre to bring together experts from film, IT and other creative industries to encourage innovation and breakthrough ideas.

The District currently supports the film sector through the Council providing $84,000 of funding support annually for the activities of Film Otago Southland (an independent trust), in partnership with other local authorities in the region. Film Otago Southland puts production companies in touch with local expertise, hosts major industry influencers in the District, represents the screen production industry to the community, liaises with the Department of Conservation and Land Information New Zealand to ensure that productions have access to locations, and promotes the District's capability in New Zealand and overseas. A major part of promotional effort involves networking with other offices in New Zealand and offshore through an international network of film offices. One question for Queenstown Lakes is whether the current regional arrangement provides the best leverage for film promotion efforts in the District, whether more focused attention on the District is required and/or whether more formal partnerships with the other key screen production centres of Wellington and Auckland would be of value.

- Overall, there is no evidence to suggest that attracting investment in a sound stage is imminent or a specific priority. This is not to say that the private sector may not pursue this opportunity, but elsewhere in Auckland and more recently in the Bay of Plenty, Councils have been a key driver (or funder) of this activity (including owning the facility over the short-term).

M.E has also reviewed the "Out Local Economy – A Strategy Update, 2018" for the same purpose. Key points from that review:

- The document provides an update of what has been achieved in the three years following the economic development strategy. It confirms the same objectives and priorities.

- It does identify that two roles have been added to council that are focussed on the film sector and that research has been carried out "into businesses that could be attracted here with NZ Trade and Enterprise", as well as support provided for "start-up" businesses. Some of these initiatives *could* potentially relate to new business growth in the industrial economy, but further detail is not included.
- The investments made in recent years are focussed on the education, tourism and IT sectors and not the industrial economy.
- Overall, there is nothing concrete that can be gained from this document that suggests that any changes are imminent in the direction and structure of the industrial economy as a result of Council.

This further confirms our view that a business as usual growth outlook is most relevant going forward for QLD's industrial economy and this should be the focus of the planning framework. This does not preclude the potential for a few new industries to emerge, but they will the exception, not the norm.

6.4 Micro-Economic Trends Impacting on the Industrial Economy and Industrial Land

The section looks at some local level factors that affect the viability and vulnerability of industrial land use activities within the district's industrial zones. These can be considered as more micro level trends. They are discussed under a number of (related) themes. Most are issues that can be influenced or managed through the District Plan, although may sit outside of the scope of the Stage 3 review. For clarity, this analysis does not consider site specific factors (such as operative site standards) and how these may be affecting the viability of industrial land use activities.

6.4.1 Specialist versus Generalist Zones

In large urban economies such as Auckland, not only can industrial zones be created in a range of locations and scales (dispersed around the city in the north, south, east and west), but zones specifically for heavy industrial activities and specifically for light industrial activities can be sustained and with little or no need for these zones to enable a mix of non-industrial activities. Further, when there is a relatively large range of industrial zones to choose from, some can begin to specialise in terms of their business mix (key locations for manufacturing, logistics, industrial services etc). The scale of places like Auckland can also sustain specialist business zones like Business Parks which have very uniform developments of large-scale office-developments.

Unlike places such as Auckland, QLD is a small economy. The zoning structure (special zones notwithstanding) is relatively simple with currently one 'Mixed Business Zone' and two 'Industrial Zones' (although upon comparison, Industrial and Industrial B have a very similar role and function and so may be considered as one). The Airport Zone is distinguished as are local shopping centres from town centres. There are however few instances of each zone type. Just one combined industrial location in Wanaka and just two locations of Industrial zone in Queenstown-Arrowtown. This is typical of districts of comparable size.

At the time that the Industrial zones were formed the industrial economy was much smaller (see analysis on growth since 2001) and the rationale for providing specialist (i.e. less mixed use) industrial zones most likely would have seemed unjustified. This means that if you are going to create one industrial zone, it needs to have a degree of flexibility in terms of what it enables as the market has little or no choice to locate elsewhere. Similarly, if you are going to have one type of business zone, this also needs a degree of flexibility too – hence the 'mixed use' zone purpose.

The implications of a broad activity mix in industrial zones is discussed further below. However, it is relevant to note that only recently has Queenstown started to sustain a discourse of more specialist (less mixed use) industrial zones – i.e. Precinct D in the Frankton Flats B Special Zone (yard-based specialty) and now Coneburn Special Zone (primarily industrial).

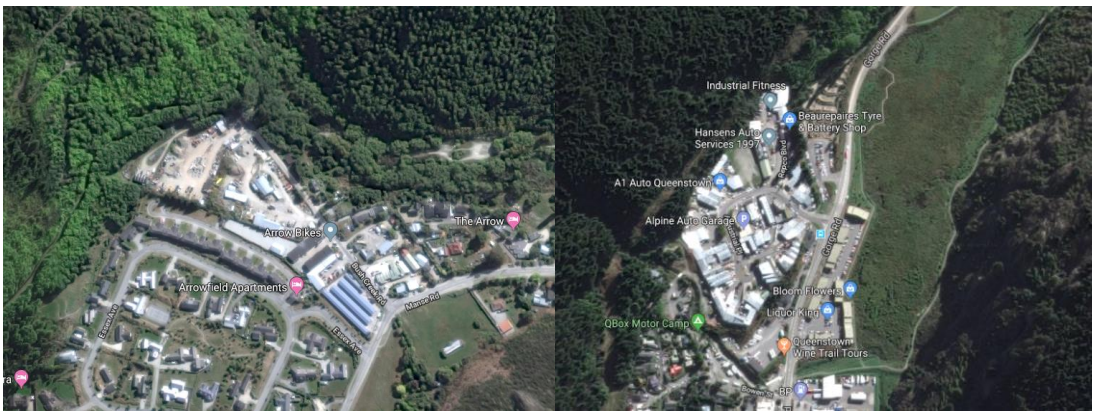
Looking forward (in a planning sense), it is important to recognise that the district has grown considerably (matured) and the need to provide mixed use or permissive industrial zones (i.e. zones that allow for activities not specifically dependent on an industrial zone location) has reduced and it is now viable to provide for industrial zones that are more strictly focussed on enabling those activities that have a functional need to be in an industrial zone . Avoiding too much flexibility in industrial zones is important to protect the capacity for those industrial activities that have little or no alternative location options.

6.4.2 Room to Grow

The geography of Queenstown has shaped and constrained where urban development can occur. It has been squeezed between the lake edge and rivers and the steep hills behind, on a relatively thin ribbon land, most of it sloping. Finding locations for industrial zones (or any zone) is therefore difficult (particularly now with the identification and protection of ONLs). However, it is relevant to observe where industrial zones have been positioned in the past. As this is a key lesson for where they might be positioned in the future.

Figure 6.4 shows how the Industrial zone in Arrowtown was positioned hard up against the surrounding steep hills (left-hand image) and the Gorge Road Business (Operative Zone) is also positioned hard up against the surrounding steep hills (and a wetland). This is the right-hand image. Similarly, Glenda Drive is hard up against the steep bank that drops to the Shotover River delta. A positive outcome of these locations is that it removes the risk of reverse sensitivity effects by avoiding neighbouring urban land use on one side.

Figure 6.4 – Examples of Inability to Expand Industrial Zones (Arrowtown and Gorge Road)



Until relatively recently, these zones would have been surrounded (on the unconstrained side) by greenfield land, particularly in Glenda Drive and Arrowtown. Over time, adjoining land has been zoned and developed and now the Business (Operative) and Arrowtown Industrial zones are hemmed in, removing any opportunity for these zones to expand.

In Glenda Drive, the Frankton Flats B zone *has* provided for the expansion of industrial activity and that is a positive outcome in terms of agglomeration benefits of a larger, consolidated industrial (or semi-industrial) area.

In Wanaka, the landform is more open and means that urban growth is less constrained. The location of the Industrial zone has no natural barriers, although Ballantyne Road forms a hard edge. This is ideal from an expansion opportunity perspective, although does generate more potential for adverse effects at the boundary. Like in Queenstown and Arrowtown, the surrounding land has been extensively undeveloped (greenfield). This has allowed for one round of expansion – the Industrial B, and a second round of expansion - PC 46.

Wanaka's industrial land is however facing the same fate as Arrowtown. The land to the west is now zoned for Low Density Suburban Residential as well as the residential component of PC 46. The only Rural Zone expansion potential (that is contiguous) is to the south towards Riverbank Road.

The Ballantyne Mixed Use Zone provides an expansion of industrial zoning opposite the Industrial and Industrial B zone. This is largely surrounded by the Three Parks Special Zone, although some adjoining precincts are compatible business zones so will form a contiguous industrial/business area. There may be potential to expand to the south, again to Riverbank Road.

Overall, it appears (from an observation of land use zoning patterns only) that there has been only partial (or inconsistent) consideration given to the future expansion potential of existing industrial zones. Locating industrial zones against natural barriers limits expansion to just the unconstrained sides. Not providing for 'future industrial expansion areas' or deferred industrial zones on that land has resulted in zones that now have little or no expansion potential. The consequence of this is that it places greater onus on finding new locations for industrial growth. This is challenging as industrial zones have more specific location requirements compared to most other zone types (such as residential). They invariably will be located further away from key markets of demand. This has (among other things) adverse effects on transport and infrastructure provision and the efficiency of conducting business in QLD.

On the positive side, finding new locations for industrial zoning (i.e. Coneburn) provides for more location choices for industrial activities (assuming there is vacant capacity across each location, which is not necessarily the case in Queenstown) and may make it easier to create a more specialised (less mixed use) industrial zone (where expansion of an existing zone may be expected to provide or retain the existing mix of activity). Now that Coneburn is zoned, protecting the opportunity for it to expand in future may be prudent. This could/should be considered as part of QLDC's wider strategic planning processes.

6.4.3 Limited Short-Term Feasible Development Capacity

The existing industrial zones in Queenstown and Arrowtown, including the Business (Operative) zone, have very little vacant capacity and are nearly fully occupied[36]. Wanaka however has comparatively large amounts of vacant industrial capacity. The BDCA 2017 report included a survey of vacant capacity carried out in January 2018. At that time, the results were as follows:

- Gorge Road Business Zone: 3,700sqm vacant developable land area.
- Arrowtown Industrial Zone: 300sqm vacant developable land area.
- Glenda Drive Industrial Zone: 1.18ha vacant developable land area.
- Wanaka Industrial Zone: 1.71ha vacant developable land area.
- Wanaka Industrial B Zone: 12.52ha vacant developable land area (large areas of which did not have titles issued or infrastructure complete).
- Ballantyne Road Mixed Use: 14.9ha of vacant developable land area (not currently feasible capacity[37]).

This is a sub-total of 15.81ha excluding the Ballantyne Road Mixed Use Zone, and 30.71ha including the Ballantyne Mixed Use Zone.

In addition, there are other zones that enable some industrial land use activities (based on activities defined in the Stage 1 decisions version district plan). These are:

- Frankton Flats B Special Zones (precincts E1, E2 and D): vacant developable capacity estimated at 27.19ha potentially or exclusively available for industrial land use activities.
- The Gorge Road Business Mixed Use Zone: 4.7ha of vacant capacity that enables some forms of industrial activity.
- The Wanaka Business Mixed Use Zone: 4,800sqm of vacant capacity that enables some forms of industrial activity.
- The Three Parks Special Zone (precincts Business and Business Mixed Use): 8.17ha of vacant capacity that enables some forms of industrial activity.

This is an overall maximum[38] vacant capacity for industrial land use activities of 70.76ha (January 2018)[39]. That is 32.99ha in Queenstown and Arrowtown combined and 37.4ha available in the Wanaka ward[40].

As far as M.E is aware, an update of this vacant capacity using a consistent approach to defining vacant capacity, has not been carried out. Given the fast rate of development occurring in the district, it is expected that a portion of this vacant capacity is now already developed and occupied by business activities

[36] Not to be confused with fully 'developed' as some sites are used as yards which have little or no development on them.

[37] The zone currently has a building restriction over it.

[38] It is considered 'maximum' capacity as some zones containing vacant capacity enable a range of activities (including retail and commercial activities) that are also competing for this space. The land area of plan enabled vacant industrial capacity is therefore greater than the land area of industrial land that the market will supply.

[39] This excludes the capacity in the Queenstown Airport Zone.

[40] This does not account for land ownership or landowner aspirations for vacant land.

and a portion is under construction (or consented for development). What remains vacant today has not been quantified.

Since the BDCA, the following zone capacity has been enabled in the Stage 1 decisions version plan in the Queenstown-Wakatipu ward:

- Business Mixed Use Zone in Frankton: estimated 5.8ha (out of a total of 9.1ha) vacant capacity that enables some forms of industrial activity[41].
- Coneburn Industrial Special Zone: estimated (but not verified) vacant capacity of 19.5ha (out of a total of 71ha) that enables mainly industrial activity.

These two zones, but especially Coneburn, will provide vital additional capacity in the Queenstown ward for growth of the industrial economy. However, the Coneburn land is not serviced with necessary infrastructure and so is not yet feasible development capacity. The timing of when this land will be available for development is not known.

The key adverse effects of having only limited vacant development capacity at any one time include (but are not limited to):

- There are few bare sites available for new industrial businesses to choose from and a greater chance that an appropriate site will not be found. This may force industrial businesses to locate elsewhere. Lost opportunities for growth, employment and competition.
- There are few vacant tenancies (built sites) as high demand and limited supply means that spaces are snapped up as soon as they become available. This limits churn in the market which is important to allow businesses to move to different premises as their needs change. Businesses are more likely to stay put even when their premises are not sustainable physically or financially. This can impact on the efficient operation of businesses and can have flow on effects on staff, customers and the local environment.
- A lack of certainty about future business growth/expansion potential can curb investment and future job opportunities.
- High demand and limited supply drive up prices of land and built space. This limits the types of businesses that can occupy remaining vacant capacity and can price many industrial activities out of the zone/market. It also encourages sites to be developed more intensively, which precludes land extensive activities. Rising prices are discussed further below.

6.4.4 Neighbouring Land Use

The environments surrounding the district's industrial zones have changed considerably in recent years (as discussed above). The changes in Wanaka - where the adjoining residential zone represents feasible development potential – is however still to come, but that uptake is imminent. It is understood that some roads in the industrial zone will directly connect to the residential zone (i.e. Gordon Road).

[41] This zone was confirmed after the BDCA 2017 was completed. Estimates provided for evidence on Stage 1 Appeals (N Hampson, 12th October 2018).

While all zones have a policy framework that helps manage boundary effects and reverse sensitivity, it is likely that the full effect of those policies have not yet been tested. The residential development adjoining the Arrowtown Industrial zone has been in place for a number of years, but the small size of the industrial-residential interface means that this is not representative of the level of effects that may be felt in Frankton and Wanaka. When reviewing the efficacy of operative (boundary and reverse sensitivity) provisions, it is important to recognise that current monitoring data may not reflect the full scale of the issue and that this may be more apparent in the near future.

The other relevant issue is that the development of surrounding land can have a significant impact on traffic and parking demand in industrial zones. Glenda Drive is a good example. For many years, Glenda Drive was a dead-end street surrounded by greenfield land. The traffic and parking in that area was limited to the businesses present in the zone and their customers and staff.

Today, Glenda Drive is a through-road connecting to Remarkables Park and the surrounding land has developed rapidly. The density of employment in the wider Frankton area has increased significantly (and is still rising). There will soon be large numbers of residents and the retail precincts are nearing completion. Combined with population and visitor growth, the immediate environment in which Glenda Drive industrial businesses now operate has changed significantly.

With limited options to relocate, industrial businesses (and all businesses that existed before these significant changes) will have needed to adapt to the following:

- Increased traffic on the immediate road network – this can cause delays in receiving goods and delivering goods/services. Businesses depending on large sized truck movements will be most affected, as would businesses that operate with a fleet of vehicles that come and go regularly from the site (i.e. couriers, waste collection, trade supplies and services). Large trucks that may need to manoeuvre into sites/properties now potentially have a greater impact on traffic flows (i.e. delays where they temporarily block traffic) than they once did and may need to adjust the time at which they arrive to avoid peak traffic flows. All of these factors result in an overall reduction in efficiency.
- Reduced street parking – this may be putting pressure on staff parking or the ability to park work related vehicles on the roadside at times during the day. Staff may need to park further away than they once did. Public transport options are unlikely to be offsetting this at present (and don't apply in Wanaka). An inability to find parking affects the functional amenity of industrial zones as a place of work.

It is possible that the size of sites in the Glenda Drive Industrial zone might have *seemed* more appropriate when Glenda Drive was not as busy. Businesses *may* not feel the same today now that they don't have the benefit of a quieter street with less competition for parking and there is a greater need to internalise parking provision and manoeuvring. This is an area that may warrant further targeted research. The key message is that:

a) What might seem like a satisfactory provision of on-site parking and manoeuvring today (and particularly in newly developing industrial zones in greenfield locations) may not be satisfactory in the future when those zones and the neighbouring (connecting) land areas are fully developed.

b) Industrial zones that have (or will have) road connections to other neighbouring land use zones (particularly commercial zones) can expect to face increasing traffic flows and demand for parking. It is therefore more important for sites in these zones to be able to provide for on-site staff parking and manoeuvring.

c) Any further research on the appropriateness of site sizes for the purpose of on-site parking and manoeuvring should take into account the stage of development of that zone (developing versus fully developed - and including the stage of development of surrounding land) as this is likely to influence results.

d) Encouraging public transport routes that service industrial zones is likely to contribute to the efficient function of those zones by reducing demand for staff parking.

6.4.5 Higher Value Land Uses

A relevant issue in QLD is the impact of higher value land uses in industrial zones. When zones provide for a mix of activities, including activities that are not dependent on an industrial zone location, it provides options for what landowners choose to supply to the market.

On the one hand, industrial zones are intended to provide for land extensive activities (typically yard-based businesses). These are an important component of the industrial economy and are activities highly dependent on an industrial zone location. Figure 6.5 shows several images from Glenda Drive Industrial zone of businesses that require space that is not used intensively but yet is still critical to the operation of those businesses. This includes businesses that store raw materials, provide a depot for machinery and equipment, or need to internalise large volumes of truck/vehicle movements and parking.

Figure 6.5 – Examples of Land Extensive Activities Dependent on Industrial Zone Locations

On the other hand, industrial zones have enabled more intensive land uses (typically office-based activities). Figure 6.6 shows images also from Glenda Drive of multi-storey office buildings, within which a range of business types operate that do not have a functional need to be in an industrial zone. When developed intensively, these sites can sustain multiple businesses and therefore offer greater returns to landowners than a single land-extensive business. The flow on effect of this outcome is that you often end up with office buildings right beside yard-based industrial businesses which increases the potential for reverse sensitivity effects on industrial businesses which may generate noise, dust and heavy vehicle movements (for example).

Figure 6.6 – Examples of Land Intensive Developments Not Dependent on Industrial Zoning

In some cases, the purpose of the industrial zone is blurred through decisions that consider the effects of a single site in isolation and do not consider the aggregate or cumulative effect on the industrial zone. Such

decisions allow activities that were not generally anticipated by the provisions (i.e. non-complying activities) and these can set a precedent effect for future decisions that is not easily combatted. The recent Bunnings decision in Frankton Flats is a key example of these decision-making processes. Judge Jackson asked and answered the following question:

"In particular is it 'inefficient' to use land zoned industrial for some other business activity if the landowner can obtain higher rents for it? It appears not, provided there is zoned capacity elsewhere in the region."[42]

In our view, this approach does not recognise the purpose of providing for industrial zones in the district plan. Regulation is needed to protect against market failure. In this case, to ensure that land extensive and other industrial activities are provided with suitable land on which to operate despite the fact that there are higher value activities that could utilise that land. The industrial economy sustains a wide range of economic activity and is essential for the efficient operation of the economy and its potential to grow. It is especially important in QLD to help diversify the economy and provide employment opportunities.

Care is therefore needed to consider the wider effects of enabling activities that are not dependent on an industrial zone location, especially on the ground floor. Commercial, office and retail activities have a greater range of zone locations to choose from and are capitalising on the lower land value of industrial zones relative to business and town centre zones. This issue was central to the BDCA 2017 which presented a scenario of industrial zone land *supply* (that captured the competitive nature of higher value land uses) as distinct to industrial zone land *capacity*. Avoiding too much flexibility in industrial zone activities (especially at ground level) is necessary to protect those businesses that have a functional need to be there, now and in the future.

6.4.6 Rising Land Values

Related to the issue above, rising land values are a key feature of the QLD property market due to ongoing strong rates of growth and demand. For those people looking to develop land or individual sites, they are faced with very high purchase prices for the land relative to most places in New Zealand. As a result of these high prices (and financing costs), landowners seek to maximise the returns from development. This is achieved by developing the site to maximum intensity and targeting their development to the highest value use.

[42] Excerpt of Bunnings Environment Court Decision, taken from Stuff article (April 15 2019)

Figure 6.7 – Average Shift in Land Value 2014 – 2017 (Government Valuations) by Zone

Zone (PDP/ODP)	Estimated Zone Property Area (ha)	Total LV 2014	Average LV 2014	Estimated Average LV 2014 per ha	Total LV 2017	Average LV 2017	Estimated Average LV 2017 per ha	Increase in Average in LV	Average Increase in LV %	Increase in Average in LV/ha	Average Increase in LV/ha %
Town Centre Queenstown	9	$ 618,018,000	$ 1,592,830	$ 67,147,000	$ 887,373,000	$ 2,287,044	$ 96,413,000	$ 694,214	44%	$ 29,266,000	44%
High Density Residential	61	$ 715,028,000	$ 260,864	$ 11,651,000	$ 1,579,555,500	$ 576,691	$ 25,737,000	$ 315,827	121%	$ 14,086,000	121%
High Density Residential (Operative)	10	$ 96,894,000	$ 398,741	$ 9,337,000	$ 199,473,000	$ 820,877	$ 19,221,000	$ 422,136	106%	$ 9,884,000	106%
Town Centre Arrowtown	1	$ 27,770,000	$ 1,157,083	$ 29,389,000	$ 33,600,000	$ 1,344,000	$ 35,559,000	$ 186,917	16%	$ 6,170,000	21%
Arrowtown Residential Historic Management Zone	19	$ 109,216,000	$ 418,452	$ 5,882,000	$ 216,539,000	$ 829,651	$ 11,663,000	$ 411,199	98%	$ 5,781,000	98%
Town Centre Wanaka	8	$ 125,370,000	$ 858,699	$ 16,342,000	$ 159,039,000	$ 1,081,898	$ 20,731,000	$ 223,199	26%	$ 4,389,000	27%
Special Zone - Frankton Flats	45	$ 117,499,000	$ 1,780,288	$ 2,634,000	$ 282,169,000	$ 4,408,891	$ 6,326,000	$ 2,628,603	148%	$ 3,692,000	140%
Low Density Residential	997	$ 2,907,582,200	$ 305,194	$ 2,917,000	$ 5,826,207,000	$ 611,804	$ 5,845,000	$ 306,610	100%	$ 2,928,000	100%
Industrial A (Operative)	29	$ 116,059,000	$ 495,979	$ 4,026,000	$ 194,995,000	$ 833,312	$ 6,764,000	$ 337,333	68%	$ 2,738,000	68%
Local Shopping Centre	7	$ 24,642,000	$ 513,375	$ 3,488,000	$ 42,029,000	$ 875,604	$ 5,949,000	$ 362,229	71%	$ 2,461,000	71%
Business Mixed Use	18	$ 97,242,000	$ 549,390	$ 5,391,000	$ 135,636,000	$ 766,305	$ 7,520,000	$ 216,915	39%	$ 2,129,000	39%
Penrith park	34	$ 73,649,000	$ 640,426	$ 2,146,000	$ 135,640,000	$ 1,179,478	$ 3,952,000	$ 539,052	84%	$ 1,806,000	84%
Medium Density Residential	263	$ 460,351,000	$ 425,857	$ 1,751,000	$ 883,811,500	$ 817,587	$ 3,362,000	$ 391,730	92%	$ 1,611,000	92%
Special Zone - Shotover Country	96	$ 126,615,000	$ 189,543	$ 1,314,000	$ 249,733,000	$ 373,852	$ 2,591,000	$ 184,308	97%	$ 1,277,000	97%
Township (Operative)	294	$ 327,453,000	$ 159,112	$ 1,116,000	$ 699,259,500	$ 339,282	$ 2,382,000	$ 180,169	113%	$ 1,266,000	113%
Business (Operative)	9	$ 25,841,000	$ 478,537	$ 2,799,000	$ 34,304,000	$ 635,259	$ 3,715,000	$ 156,722	33%	$ 916,000	33%
Rural Residential (Operative)	26	$ 17,150,000	$ 281,148	$ 660,000	$ 37,960,000	$ 622,295	$ 1,462,000	$ 341,148	121%	$ 802,000	122%
Industrial B (Operative)	13	$ 11,903,000	$ 297,575	$ 898,000	$ 22,515,000	$ 562,875	$ 1,699,000	$ 265,300	89%	$ 801,000	89%
Special Zone - Quail Rise	73	$ 68,930,000	$ 328,238	$ 944,000	$ 125,715,000	$ 598,643	$ 1,722,000	$ 270,405	82%	$ 778,000	82%
Special Zone - Remarkables Park	127	$ 136,048,000	$ 657,237	$ 1,068,000	$ 225,184,000	$ 1,093,126	$ 1,767,000	$ 435,889	66%	$ 699,000	65%
Large Lot Residential	419	$ 314,768,000	$ 464,260	$ 752,000	$ 602,137,000	$ 888,108	$ 1,438,000	$ 423,848	91%	$ 686,000	91%
Special Zone - Meadow Park	25	$ 17,556,000	$ 274,313	$ 695,000	$ 32,470,000	$ 507,344	$ 1,286,000	$ 233,031	85%	$ 591,000	85%
Ferry Hill Rural Residential Sub-Zone	10	$ 9,240,000	$ 577,500	$ 893,000	$ 13,890,000	$ 868,125	$ 1,342,000	$ 290,625	50%	$ 449,000	50%
Special Zone - Resort	861	$ 369,964,000	$ 364,856	$ 430,000	$ 629,964,000	$ 621,266	$ 731,000	$ 256,410	70%	$ 301,000	70%
Special Zone - Arrowtown South	31	$ 11,112,500	$ 1,010,227	$ 362,000	$ 19,580,000	$ 1,958,000	$ 638,000	$ 947,773	94%	$ 276,000	76%
Rural Residential	606	$ 271,074,000	$ 410,718	$ 447,000	$ 436,755,000	$ 662,754	$ 721,000	$ 252,036	61%	$ 274,000	61%
Special Zone - Bendemeer	62	$ 29,650,000	$ 780,263	$ 478,000	$ 43,260,000	$ 1,138,421	$ 698,000	$ 358,158	46%	$ 220,000	46%
Rural Lifestyle Deferred	4	$ 1,270,000	$ 635,000	$ 335,000	$ 1,965,000	$ 982,500	$ 519,000	$ 347,500	55%	$ 184,000	55%
Rural General (Operative)	79	$ 8,430,000	$ 4,215,000	$ 107,000	$ 20,200,000	$ 10,100,000	$ 256,000	$ 5,885,000	140%	$ 149,000	139%
Rural Lifestyle	3,263	$ 479,481,000	$ 671,542	$ 147,000	$ 733,038,000	$ 1,026,664	$ 225,000	$ 355,122	53%	$ 78,000	53%
Rural Visitor	504	$ 41,950,000	$ 270,645	$ 83,000	$ 73,828,000	$ 476,310	$ 146,000	$ 205,665	76%	$ 63,000	76%
Special Zone - Ballantyne Road Mixed Use	20	$ 2,500,000	$ 2,500,000	$ 122,000	$ 3,760,000	$ 3,760,000	$ 184,000	$ 1,260,000	50%	$ 62,000	51%
Airport Mixed Use Zone	127	$ 13,177,000	$ 1,317,700	$ 104,000	$ 20,520,000	$ 2,052,000	$ 161,000	$ 734,300	56%	$ 57,000	55%
Rural Lifestyle Buffer	21	$ 2,110,000	$ 2,110,000	$ 99,000	$ 2,950,000	$ 2,950,000	$ 138,000	$ 840,000	40%	$ 39,000	39%
Gibbston Character Zone	1,103	$ 70,535,000	$ 443,616	$ 64,000	$ 108,435,000	$ 681,981	$ 98,000	$ 238,365	54%	$ 34,000	53%
Special Zone - Three Parks	147	$ 4,530,000	$ 755,000	$ 31,000	$ 7,680,000	$ 1,280,000	$ 52,000	$ 525,000	70%	$ 21,000	68%
Special Zone - Hanley Downs	616	$ 17,370,000	$ 2,481,429	$ 28,000	$ 24,715,000	$ 3,530,714	$ 40,000	$ 1,049,286	42%	$ 12,000	43%
Special Zone - Kingston Village	82	$ 1,850,000	$ 1,850,000	$ 23,000	$ 2,730,000	$ 2,730,000	$ 33,000	$ 880,000	48%	$ 10,000	43%
Rural	305,092	$ 1,585,334,000	$ 930,907	$ 5,000	$ 2,438,511,000	$ 1,439,499	$ 8,000	$ 508,592	55%	$ 3,000	60%
Total QLD Properties	315,213	$ 9,455,161,700	$ 400,513	$ 30,000	$ 17,187,125,500	$ 728,797	$ 55,000	$ 328,284	82%	$ 25,000	83%

Values not adjusted for inflation. Assumes zone area is the same in both time periods. Source: QLDC

This is a key issue for industrial zones which rely on lower land values to support the viability of industrial businesses that use land less extensively – whether yard-based businesses or workshops, factories or warehouses that tend to be single use buildings with no other tenancies on upper floors.

Figure 6.7 summarises the change in government valuations of land value in QLD by zone between the 2014 valuation and the 2017 valuation. Note, these values do not reflect market values which would typically be higher in QLD.

- It shows that in the Industrial zone, the average land value of a property was nearly $496,000 in 2014 (and average of $4,026,000/ha). This increased to an average of $833,000 per property ($6,764,000/ha) by 2017. This is an increase of 68% or $2,738,000/ha. In dollar terms, this was the 9th largest increase in value per ha and the 8th most valuable zone in per ha terms (topped only by the three town centres, Frankton Flats Special Zone(s), High Density (Operative) zone and the Low Density Residential Zone.
- It shows that in the Industrial B zone, the average land value of a property was nearly $298,000 in 2014 (and average of $898,000/ha). This increased to an average of $563,000 per property ($1,699,000/ha) by 2017. This is an increase of 89% or $801,000/ha. In dollar terms, this was the 18th largest increase in value per ha and the 19th most valuable zone in per ha.
- It shows that in the Business Operative zone, the average land value of a property was nearly $479,000 in 2014 (and average of $2,799,000/ha). This increased to an average of $635,000 per property ($3,715,000/ha) by 2017. This is an increase of 33% or $916,000/ha. In dollar terms, this was the 16th largest increase in value per ha and the 13th most valuable zone in per ha terms.

The significant change in value in the Industrial B zone (89%) is potentially driven by the improvements made to the greenfield land over that period (i.e. became more development ready), but also reflects the reduced supply available in the neighbouring Industrial zone.

Overall, the reduction in available capacity in each of these zones has made the land more valuable (i.e. scarcity of resources). This is typical when the amount of available capacity does not keep pace with demand. The addition of Coneburn may not make a material difference on industrial land values as this new capacity is located further out. More central zones remain prime locations. Further, Coneburn's focus on industrial activities will not influence the desirability of Industrial zone sites for other activities that may not be dependent on an industrial zone location.

These high prices make it more important for landowners to maximise the intensity of development to ensure it is commercially feasible (i.e. profitable). This drives the supply of non-industrial land uses, given that office (and to some extent retail/service) businesses can afford to pay higher prices and the industrial zones provide a cheaper but still attractive alternative to the more expensive town centres. These economic processes have significant implications for what portion of remaining industrial zone vacant capacity is made available for the industrial economy and those activities that have a functional need to locate in industrial zones.

6.4.7 Labour Supply and Housing Affordability

The availability of labour is another relevant issue that impacts on the viability and sustainability of industrial economy businesses. Industrial economy businesses typically support a range of occupations

(from management through to unskilled labour). This is valuable in terms of the mix of employment opportunities sustained in the district. However, the ability to attract and retain staff is strongly linked to the ability of those workers to find accommodation (whether rental or to own). While applicants may be able to secure jobs advertised in QLD, anecdotal evidence suggests that once they move to the district, the ability to secure long-term housing (particularly when earning the lower range of incomes) becomes problematic and many are forced to leave again.

The issue of housing affordability and what this means for QLD's economic growth potential for lower wage and salary earners is widely known, so is not expanded on here. The Council is trying to address the issue through a range of statutory and non-statutory functions. This is however expected to be a key constraining factor to growing medium to large industrial economy businesses, including those that typically locate in the industrial zones.

7 Summary and Recommendations

Having analysed QLD's industrial economy in detail, this section provides a concise description of that industrial economy and summarises key findings from throughout the report. The section concludes with a number of recommendations for the review of the operative industrial zones.

7.1 Brief Description of the QLD Industrial Economy

QLD's industrial economy comprises of businesses involved in Manufacturing; Construction; Waste Collection, Treatment and Disposal; Wholesaling; Road Transport; Delivery Services; Storage; Vehicle, Machinery and Equipment (construction related) Hire; Automotive, Appliance, Machinery and Equipment Repair and Maintenance Services; and industrial Dry Cleaning (non-retail component). It is characterised by small scale businesses that serve local level demand.

Industrial economy businesses operate in a range of physical forms including factories, warehouses, workshops, yards and offices. Only a small portion of industrial economy businesses have a function or operational need to locate in an industrial zone. Those that do, tend to be the larger sized businesses (in employment terms) and will often have ancillary office and commercial activities.

A large share of the industrial economy places no demand on zoned capacity (industrial or otherwise) and does not need to be provided for in a district plan sense. These businesses are dominated by tradesman in the Construction sector, or very small-scale home-based manufacturing businesses.

QLD's industrial economy is growing rapidly and has demonstrated growth rates faster than the rest of the district's economy. This can be expected to continue, with the future structure of the industrial economy likely to be very similar to what is here today.

7.2 Key Findings

The key findings of this research include the following:

1. QLD's industrial economy makes up about 25% of all businesses and 22.5% of all employment in the district as at 2017. The relative role of the industrial economy within the wider economy is fairly similar to other areas in New Zealand in terms of the share of businesses, but accounts for a smaller share of employment. This is driven by the fact that industrial economy businesses in QLD tend to be smaller. The economy does not sustain large industrial businesses – these are typically in the large cities.

2. There are currently 1,930 businesses employing 6,250 workers in the district's industrial economy. While the range of ANZSICs included in the description is broad, most ANZSICs have very little depth. Many have only one business or a few businesses.

3. The industrial economy in QLD is heavily dominated by the construction sector (61% of businesses and 56% of employment). This plays a larger role than most other industrial economies in New Zealand. Conversely, QLD does not have a significant manufacturing base. Nor is it well suited for transport and logistics type activities including large warehousing. These sectors are under-represented compared to the national average.

4. The major share of the industrial economy is located in the Queenstown ward. This is consistent with the ward's share of total population and dwellings. The Queenstown ward accounts for 55% of all industrial economy businesses (2017).

5. There is a lot of duplication of business types between Wanaka and Queenstown wards – i.e. they have a very similar mix of activities. The Cromwell ward has a smaller industrial economy than Wanaka, although has slightly larger sized businesses. There is a lot of duplication of industries between QLD and Cromwell. While there is industrial economy trade between the wards, this is small and each ward is largely self-sufficient (but with all areas dependent on inputs from the rest of New Zealand). Wanaka does not generally serve demand in Queenstown and vice versa.

6. In total 65% of gross output from the QLD industrial economy is consumed (demanded) by customers within the district (mostly business to business transactions, with only a small share of demand going directly to households).

7. The industrial economy is predominantly urban based. 82% of businesses and 85% of employment is based in the urban environment. A significant 66% of urban industrial zone activity is located in residential or township zones and has no functional need to locate in a business-oriented zone. This is common throughout New Zealand, but the QLD share is expected to be above average. It reflects the small scale, home-based businesses which are significant in QLD. The construction sector (builders and tradesman) accounts for the majority of this activity.

8. The business zones of the district accommodate an estimated 5% of industrial economy businesses and the industrial zones between 5-13%. This further highlights that the industrial economy is not limited to just that activity present in industrial zones.

9. While QLD does not support much heavy industry per se, it is the 'heavier' industries (in a relative sense) that are highly dependent on an industrial zone location. These include the manufacturing and service businesses that provide inputs to the construction sector. Industrial zones also have an important role for wholesaling, other manufacturing and transport businesses.

10. Those industrial economy activities that have a functional need to locate in an industrial zone also tend to be larger businesses (in employment terms); have a need to store machinery or materials outside; generate higher levels of truck movements; and/or have externalities such as dust and noise. They may support ancillary commercial or office space. The main activities are generally limited to the ground floor, with many businesses requiring high internal building space.

11. The existing industrial zones (by location) and including the Business (Operative) zone, have a very similar mix of activities. While the zones vary in size (and the number of businesses they can support), they all have a similar structure/role. This is consistent with the finding that Wanaka and Queenstown are largely self-sufficient (i.e. they serve local markets).

12. The industrial economy is growing strongly and faster than the rest of the QLD economy. Business counts have increased by 161% since 2001 and employment has increased by 177%. Most of the growth has been in the construction sector.

13. Future growth of the industrial economy is also expected to be strong and largely driven by household growth. There is limited likelihood that industrial sector trends occurring outside the district will have a material impact on what happens to the industrial economy within the district in future. A business as usual outlook is the most appropriate approach to projecting future growth.

14. There are however a range of local factors that will continue to influence the viability and vulnerability of those industrial economy businesses that have a functional need to locate within industrial zones. These include constraints on the ability to grow activities and move premises as needs change due to limited growth potential of zone areas generally and limited vacant capacity remaining in existing zones (particularly in Queenstown); changing land use around industrial zones impacting on how busy the general areas are in terms of traffic and parking availability; rapidly rising land values which flows through to rising development, lease and rental costs; competition for higher value land uses within zones which is further exacerbated by rising land values; and labour force-housing availability constraints.

7.3 Recommendations for Zone Provisions

This section provides some overall preliminary thoughts and recommendations (based on the analysis contained in this report) that may be relevant when considering options for the Industrial Zone provisions (objectives, policies and rules).

- There is limited vacant capacity in the Industrial Zone and Gorge Road Business (Operative) Zone. This means that any changes to provisions can have only a minor impact on future growth but could have a greater influence on supporting existing activities and any site redevelopment within the zones. On the contrary, there is more significant vacant capacity in the Industrial B Zone and 100% vacant capacity in the Ballantyne Road Mixed Use Zone. This means that any changes to provisions will have a greater impact on future growth of those locations and will therefore need to support the needs of future industrial land use businesses (which will be similar to the needs of current industrial land use businesses).
- Site size – While it is important to provide for *some* larger sites to enable land extensive activities (and larger scale businesses generally, although these are few and far between), the majority of industrial economy businesses seeking industrial zone locations are small-medium sized. It is therefore recommended that individual zones provide for a small share of larger sites as part of the mix of subdivided lots (in appropriate locations with good access), or that specific

zones/precincts are set aside to specifically accommodate those few businesses needing larger sites. Existing large sites in developed industrial zones are likely to provide a good indication of what is an appropriate 'large lot' in the context of QLD given that we can expect more of the same types of businesses in future.

- Multi-unit developments – On the basis that industrial zone land values are already high and unlikely to come down in the foreseeable future, it is important that industrial zones are developed in an efficient way that can help mitigate the costs of construction and the rental/lease costs for tenants. Enabling multi-unit (multi tenancy) industrial buildings on sites is likely to aid in balancing the need for suitable space for businesses with a more affordable cost (relative to occupying their own site). For clarity, these are not multi-unit office buildings, but could include warehouse or workshop type buildings divided by internal walls to create separate tenancies on the ground floor.
- Permissive/flexible zones – While in the past enabling a mix of activities would have helped ensure efficient use and uptake of industrial zones (when demand was lower), the rapid growth of the industrial economy means that it is more important that the needs of the industrial economy (and particularly those activities with a functional need to be industrial zones) are prioritised and the competition for that land from activities that do not have a functional need to locate in industrial zones, is reduced. There is no clear evidence from this study that having mixed use or flexible industrial zones is beneficial (at the aggregate level), but there is evidence of the costs associated with that outcome. It is recommended that going forward, more stringent planning frameworks are needed that avoid too much flexibility in industrial zones so that industrial activities that have a functional need to locate in those zones are protected. Ideally, industrial zones should be clearly distinguishable from the Business Mixed Use zones.
- Relatedly, it is recommended that purely office-based activities should be discouraged from industrial zones. One adverse effect of this activity is that they create high demand for parking. Rules are needed to limit the intensity that sites can be developed so that multi-storey office developments such as those seen in Glenda Drive are avoided. Such activities can locate in town centres and Business Mixed Use zones (and are more efficient in those locations and are better serviced by public transport).
- Ancillary activities – nearly all industrial businesses require some office-based functions and for most it will be efficient to have these on-site. Providing for ancillary office space is therefore essential to support industrial (and industrial yard and service) activities in industrial zones. Providing for ancillary retail is also likely to support the viability of some industrial businesses, as the alternative is to have the retail activity in one zone and the manufacturing/servicing in another (this is likely to be less efficient). It is also important to recognise that the manufacturing/servicing component is unlikely to be enabled in a centre zone, which means that industrial or mixed business zones are the only options if the business needs to keep these activities combined.
- Do we need to manage differences between zones? There may be benefits in simplifying the Industrial and Industrial B zone structure to have a single zone. Given the similar structure/profile of each of the zones examined, there are not anticipated to be any significant costs of doing this (and the marginal effect is limited to sites that have not yet been developed or any

redevelopment activity). The Ballantyne Mixed Use Zone is likely to provide for over-flow demand once the Industrial B zone is full (assuming it is development ready at that time). As such, there may be some logic in also including this in the same unified zone type, providing that the opportunity for some yard-based activity is not diminished when doing so. Given that Coneburn is focussed more strictly on industrial activities, there is benefit in retaining that 'industrial only' zone in the Queenstown market. We also see no cost associated with including the Business (Operative) Zone in a unified industrial zone approach, if that is up for consideration. There would be a marginal effect on that zone given that it is largely occupied. Otherwise, there seems little need to retain or create industrial zones that have a particular niche role within the industrial economy (such as heavy industry or light industry specifically). The market is not big enough to support that now or in the foreseeable future.

- When considering subdivision plans for new areas of industrial zone, thought should be given to the road network, particularly any connecting roads through to other neighbouring land uses and the implication this has on future traffic flows and parking demand. Where industrial zones are expected to be influenced by activity in surrounding areas, the need for onsite parking and manoeuvring will be relatively more important.
- While outside of the scope of the Stage 3 review, it is relevant to note that providing for future expansion of industrial zones (at the time of zoning) is the most efficient way to manage industrial zone capacity and growth. This could be managed through deferred or future urban zones, or by ensuring that any new zoning (or setting aside of land) provides for long-term demand as required under the NPS-UDC. There are costs associated with dispersing industrial activity across many small locations (and these will likely outweigh the benefits of providing for a range of location choices for industrial activity). Losing the opportunity to expand places a greater burden on finding and zoning new locations. There are a range of opportunities outside the district plan where these considerations can be more strategically addressed (including in the Future Development Strategy).
- Where feasible, providing public transport for industrial zones will help mitigate the need for onsite staff parking and will allow sites to be developed more intensively.

Appendix 1 – QLD Industrial Economy Breakdown

Division Code *	Division Name	Sub-Division Code	Sub-Division Name	Class (6-Digit) Code	Class (6-Digit) Name
A	Agriculture, Forestry and Fishing	5	Agriculture, Forestry and Fishing Support Services	A052900	Other Agriculture and Fishing Support Services
C	Manufacturing	11	Food Product Manufacturing	C111300	Cured Meat and Smallgoods Manufacturing
C	Manufacturing	11	Food Product Manufacturing	C113100	Milk and Cream Processing
C	Manufacturing	11	Food Product Manufacturing	C113200	Ice Cream Manufacturing
C	Manufacturing	11	Food Product Manufacturing	C114000	Fruit and Vegetable Processing
C	Manufacturing	11	Food Product Manufacturing	C115000	Oil and Fat Manufacturing
C	Manufacturing	11	Food Product Manufacturing	C116200	Cereal, Pasta and Baking Mix Manufacturing
C	Manufacturing	11	Food Product Manufacturing	C117100	Bread Manufacturing (Factory-based)
C	Manufacturing	11	Food Product Manufacturing	C117200	Cake and Pastry Manufacturing (Factory-based)
C	Manufacturing	11	Food Product Manufacturing	C117400	Bakery Product Manufacturing (Non-factory-based)
C	Manufacturing	11	Food Product Manufacturing	C118200	Confectionery Manufacturing
C	Manufacturing	11	Food Product Manufacturing	C119200	Prepared Animal and Bird Feed Manufacturing
C	Manufacturing	11	Food Product Manufacturing	C119900	Other Food Products Manufacturing n.e.c.
C	Manufacturing	12	Beverage and Tobacco Product Manufacturing	C121100	Soft Drink, Cordial and Syrup Manufacturing
C	Manufacturing	12	Beverage and Tobacco Product Manufacturing	C121200	Beer Manufacturing
C	Manufacturing	12	Beverage and Tobacco Product Manufacturing	C121300	Spirit Manufacturing
C	Manufacturing	12	Beverage and Tobacco Product Manufacturing	C121400	Wine and Other Alcoholic Beverage Manufacturing
C	Manufacturing	13	Textile, Leather, Clothing and Footwear Manufacturing	C133300	Cut and Sewn Textile Product Manufacturing
C	Manufacturing	13	Textile, Leather, Clothing and Footwear Manufacturing	C133400	Textile Finishing and Other Textile Product Manufacturing
C	Manufacturing	13	Textile, Leather, Clothing and Footwear Manufacturing	C135100	Clothing Manufacturing
C	Manufacturing	14	Wood Product Manufacturing	C149100	Prefabricated Wooden Building Manufacturing
C	Manufacturing	14	Wood Product Manufacturing	C149200	Wooden Structural Fittings and Components Manufacturing
C	Manufacturing	14	Wood Product Manufacturing	C149900	Other Wood Product Manufacturing n.e.c.
C	Manufacturing	16	Printing	C161100	Printing
C	Manufacturing	16	Printing	C161200	Printing Support Services
C	Manufacturing	18	Basic Chemical and Chemical Product Manufacturing	C181300	Basic Inorganic Chemical Manufacturing
C	Manufacturing	18	Basic Chemical and Chemical Product Manufacturing	C184100	Human Pharmaceutical and Medicinal Product Manufacturing
C	Manufacturing	18	Basic Chemical and Chemical Product Manufacturing	C185100	Cleaning Compound Manufacturing
C	Manufacturing	18	Basic Chemical and Chemical Product Manufacturing	C185200	Cosmetic and Toiletry Preparation Manufacturing
C	Manufacturing	20	Non-Metallic Mineral Product Manufacturing	C202900	Other Ceramic Product Manufacturing
C	Manufacturing	20	Non-Metallic Mineral Product Manufacturing	C203300	Ready-Mixed Concrete Manufacturing
C	Manufacturing	20	Non-Metallic Mineral Product Manufacturing	C203400	Concrete Product Manufacturing
C	Manufacturing	20	Non-Metallic Mineral Product Manufacturing	C209000	Other Non-Metallic Mineral Product Manufacturing
C	Manufacturing	21	Primary Metal and Metal Product Manufacturing	C211000	Iron Smelting and Steel Manufacturing
C	Manufacturing	21	Primary Metal and Metal Product Manufacturing	C212200	Steel Pipe and Tube Manufacturing
C	Manufacturing	21	Primary Metal and Metal Product Manufacturing	C214200	Aluminium Rolling, Drawing, Extruding
C	Manufacturing	22	Fabricated Metal Product Manufacturing	C222100	Structural Steel Fabricating
C	Manufacturing	22	Fabricated Metal Product Manufacturing	C222300	Architectural Aluminium Product Manufacturing
C	Manufacturing	22	Fabricated Metal Product Manufacturing	C222400	Metal Roof and Guttering Manufacturing (except Aluminium)
C	Manufacturing	22	Fabricated Metal Product Manufacturing	C222900	Other Structural Metal Product Manufacturing
C	Manufacturing	22	Fabricated Metal Product Manufacturing	C224000	Other Sheet Metal Product Manufacturing
C	Manufacturing	22	Fabricated Metal Product Manufacturing	C229900	Other Fabricated Metal Product Manufacturing n.e.c.
C	Manufacturing	23	Transport Equipment Manufacturing	C231200	Motor Vehicle Body and Trailer Manufacturing
C	Manufacturing	23	Transport Equipment Manufacturing	C239200	Boatbuilding and Repair Services
C	Manufacturing	23	Transport Equipment Manufacturing	C239400	Aircraft Manufacturing and Repair Services

Division Code *	Division Name	Sub-Division Code	Sub-Division Name	Class (6-Digit) Code	Class (6-Digit) Name
C	Manufacturing	24	Machinery and Equipment Manufacturing	C241100	Photographic, Optical and Ophthalmic Equipment Manufacturing
C	Manufacturing	24	Machinery and Equipment Manufacturing	C241200	Medical and Surgical Equipment Manufacturing
C	Manufacturing	24	Machinery and Equipment Manufacturing	C243100	Electric Cable and Wire Manufacturing
C	Manufacturing	24	Machinery and Equipment Manufacturing	C243900	Other Electrical Equipment Manufacturing
C	Manufacturing	24	Machinery and Equipment Manufacturing	C246100	Agricultural Machinery and Equipment Manufacturing
C	Manufacturing	24	Machinery and Equipment Manufacturing	C246200	Mining and Construction Machinery Manufacturing
C	Manufacturing	24	Machinery and Equipment Manufacturing	C246900	Other Specialised Machinery and Equipment Manufacturing
C	Manufacturing	24	Machinery and Equipment Manufacturing	C249900	Other Machinery and Equipment Manufacturing n.e.c.
C	Manufacturing	25	Furniture and Other Manufacturing	C251100	Wooden Furniture and Upholstered Seat Manufacturing
C	Manufacturing	25	Furniture and Other Manufacturing	C251900	Other Furniture Manufacturing
C	Manufacturing	25	Furniture and Other Manufacturing	C259100	Jewellery and Silverware Manufacturing
C	Manufacturing	25	Furniture and Other Manufacturing	C259900	Other Manufacturing n.e.c.
D	Electricity, Gas, Water and Waste Services	29	Waste Collection, Treatment and Disposal Services	D291100	Solid Waste Collection Services
D	Electricity, Gas, Water and Waste Services	29	Waste Collection, Treatment and Disposal Services	D291900	Other Waste Collection Services
D	Electricity, Gas, Water and Waste Services	29	Waste Collection, Treatment and Disposal Services	D292100	Waste Treatment and Disposal Services
D	Electricity, Gas, Water and Waste Services	29	Waste Collection, Treatment and Disposal Services	D292200	Waste Remediation and Materials Recovery Services
E	Construction	30	Building Construction	E301100	House Construction
E	Construction	30	Building Construction	E301900	Other Residential Building Construction
E	Construction	30	Building Construction	E302000	Non-Residential Building Construction
E	Construction	31	Heavy and Civil Engineering Construction	E310100	Road and Bridge Construction
E	Construction	31	Heavy and Civil Engineering Construction	E310900	Other Heavy and Civil Engineering Construction
E	Construction	32	Construction Services	E321100	Land Development and Subdivision
E	Construction	32	Construction Services	E321200	Site Preparation Services
E	Construction	32	Construction Services	E322100	Concreting Services
E	Construction	32	Construction Services	E322200	Bricklaying Services
E	Construction	32	Construction Services	E322300	Roofing Services
E	Construction	32	Construction Services	E322400	Structural Steel Erection Services
E	Construction	32	Construction Services	E323100	Plumbing Services
E	Construction	32	Construction Services	E323200	Electrical Services
E	Construction	32	Construction Services	E323300	Air Conditioning and Heating Services
E	Construction	32	Construction Services	E323400	Fire and Security Alarm Installation Services
E	Construction	32	Construction Services	E323900	Other Building Installation Services
E	Construction	32	Construction Services	E324100	Plastering and Ceiling Services
E	Construction	32	Construction Services	E324200	Carpentry Services
E	Construction	32	Construction Services	E324300	Tiling and Carpeting Services
E	Construction	32	Construction Services	E324400	Painting and Decorating Services
E	Construction	32	Construction Services	E324500	Glazing Services
E	Construction	32	Construction Services	E329100	Landscape Construction Services
E	Construction	32	Construction Services	E329200	Hire of Construction Machinery with Operator
E	Construction	32	Construction Services	E329900	Other Construction Services n.e.c.
F	Wholesale Trade	33	Basic Material Wholesaling	F331900	Other Agricultural Product Wholesaling
F	Wholesale Trade	33	Basic Material Wholesaling	F332100	Petroleum Product Wholesaling
F	Wholesale Trade	33	Basic Material Wholesaling	F332200	Metal and Mineral Wholesaling
F	Wholesale Trade	33	Basic Material Wholesaling	F332300	Industrial and Agricultural Chemical Product Wholesaling
F	Wholesale Trade	33	Basic Material Wholesaling	F333100	Timber Wholesaling
F	Wholesale Trade	33	Basic Material Wholesaling	F333900	Other Hardware Goods Wholesaling

Division Code *	Division Name	Sub-Division Code	Sub-Division Name	Class (6-Digit) Code	Class (6-Digit) Name
F	Wholesale Trade	34	Machinery and Equipment Wholesaling	F341100	Agricultural and Construction Machinery Wholesaling
F	Wholesale Trade	34	Machinery and Equipment Wholesaling	F341900	Other Specialised Industrial Machinery and Equipment Wholesaling
F	Wholesale Trade	34	Machinery and Equipment Wholesaling	F349200	Computer and Computer Peripherals Wholesaling
F	Wholesale Trade	34	Machinery and Equipment Wholesaling	F349400	Other Electrical and Electronic Goods Wholesaling
F	Wholesale Trade	34	Machinery and Equipment Wholesaling	F349900	Other Machinery and Equipment Wholesaling n
F	Wholesale Trade	35	Motor Vehicle and Motor Vehicle Parts Wholesaling	F350100	Car Wholesaling
F	Wholesale Trade	35	Motor Vehicle and Motor Vehicle Parts Wholesaling	F350400	Motor Vehicle New Part Wholesaling
F	Wholesale Trade	35	Motor Vehicle and Motor Vehicle Parts Wholesaling	F350500	Motor Vehicle Dismantling and Used Part Wholesaling
F	Wholesale Trade	36	Grocery, Liquor and Tobacco Product Wholesaling	F360200	Meat, Poultry and Smallgoods Wholesaling
F	Wholesale Trade	36	Grocery, Liquor and Tobacco Product Wholesaling	F360300	Dairy Produce Wholesaling
F	Wholesale Trade	36	Grocery, Liquor and Tobacco Product Wholesaling	F360400	Fish and Seafood Wholesaling
F	Wholesale Trade	36	Grocery, Liquor and Tobacco Product Wholesaling	F360500	Fruit and Vegetable Wholesaling
F	Wholesale Trade	36	Grocery, Liquor and Tobacco Product Wholesaling	F360600	Liquor and Tobacco Product Wholesaling
F	Wholesale Trade	36	Grocery, Liquor and Tobacco Product Wholesaling	F360900	Other Grocery Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F371100	Textile Product Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F371200	Clothing and Footwear Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F372000	Pharmaceutical and Toiletry Goods Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F373100	Furniture and Floor Coverings Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F373200	Jewellery and Watch Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F373300	Kitchen and Dining Ware Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F373400	Toy and Sporting Goods Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F373500	Book and Magazine Wholesaling
F	Wholesale Trade	37	Other Goods Wholesaling	F373900	Other Goods Wholesaling n.e.c.
F	Wholesale Trade	38	Commission Based Wholesaling	F380000	Commission Based Wholesaling
I	Transport, Postal and Warehousing	46	Road Transport	I461000	Road Freight Transport
I	Transport, Postal and Warehousing	46	Road Transport	I462100	Interurban and Rural Bus Transport
I	Transport, Postal and Warehousing	46	Road Transport	I462200	Urban Bus Transport (Including Tramway)
I	Transport, Postal and Warehousing	51	Postal and Courier Pick-up and Delivery Services	I510200	Courier Pick-up and Delivery Services
I	Transport, Postal and Warehousing	52	Transport Support Services	I521900	Other Water Transport Support Services
I	Transport, Postal and Warehousing	52	Transport Support Services	I529200	Freight Forwarding Services
I	Transport, Postal and Warehousing	52	Transport Support Services	I529900	Other Transport Support Services n.e.c
I	Transport, Postal and Warehousing	53	Warehousing and Storage Services	I530900	Other Warehousing and Storage Services
L	Rental, Hiring and Real Estate Services	66	Rental and Hiring Services (except Real Estate)	L661100	Passenger Car Rental and Hiring
L	Rental, Hiring and Real Estate Services	66	Rental and Hiring Services (except Real Estate)	L661900	Other Motor Vehicle and Transport Equipment Rental and Hiring
L	Rental, Hiring and Real Estate Services	66	Rental and Hiring Services (except Real Estate)	L663100	Heavy Machinery and Scaffolding Rental and Hiring
L	Rental, Hiring and Real Estate Services	66	Rental and Hiring Services (except Real Estate)	L663900	Other Goods and Equipment Rental and Hiring n.e.c.
S	Other Services	94	Repair and Maintenance	S941100	Automotive Electrical Services
S	Other Services	94	Repair and Maintenance	S941200	Automotive Body, Paint and Interior Repair
S	Other Services	94	Repair and Maintenance	S941900	Other Automotive Repair and Maintenance
S	Other Services	94	Repair and Maintenance	S942100	Domestic Appliance Repair and Maintenance
S	Other Services	94	Repair and Maintenance	S942200	Electronic (except Domestic Appliance) and Precision Equipment Repair and Maintenance
S	Other Services	94	Repair and Maintenance	S942900	Other Machinery and Equipment Repair and Maintenance
S	Other Services	95	Personal and Other Services	S953100	Laundry and Dry-Cleaning Services

* By default, all other Manufacturing industries (6-Digit ANZSICs) fall within this construct of QLD's industrial economy - they are not listed as there were no local businesses in those industries in QLD as at 2017.

Source: Australia New Zealand Standard Industrial Classification, 2006. M.E.

Appendix 2 – Structure of QLD Industrial Economy 2017

Industry	ANZSIC06	Business Count (n)	Share of IE Businesses (%)	Share of All Businesses (%)	Employment Count (n) *	Share of IE Employment (%)	Share of All Employment (%)	Average Business Size (MECs)
Industrial - House Construction	E301100	392	20.3%	5.1%	1,030	16.5%	3.7%	3
Industrial - Electrical Services	E323200	78	4.0%	1.0%	279	4.5%	1.0%	4
Industrial - Painting and Decorating Services	E324400	76	3.9%	1.0%	200	3.2%	0.7%	3
Industrial - Other Residential Building Construction	E301900	68	3.5%	0.9%	83	1.3%	0.3%	1
Industrial - Other Goods and Equipment Rental and Hiring n.e.c.	L663900	64	3.3%	0.8%	147	2.4%	0.5%	2
Industrial - Land Development and Subdivision	E321100	61	3.2%	0.8%	31	0.5%	0.1%	1
Industrial - Plastering and Ceiling Services	E324100	54	2.8%	0.7%	163	2.6%	0.6%	3
Industrial - Other Automotive Repair and Maintenance	S941900	52	2.7%	0.7%	191	3.1%	0.7%	4
Industrial - Other Agriculture and Fishing Support Services	A052900	50	2.6%	0.7%	130	2.1%	0.5%	3
Industrial - Plumbing Services	E323100	50	2.6%	0.6%	181	2.9%	0.7%	4
Industrial - Landscape Construction Services	E329100	47	2.5%	0.6%	136	2.2%	0.5%	3
Industrial - Tiling and Carpeting Services	E324300	46	2.4%	0.6%	99	1.6%	0.4%	2
Industrial - Site Preparation Services	E321200	46	2.4%	0.6%	295	4.7%	1.1%	6
Industrial - Bricklaying Services	E322200	40	2.1%	0.5%	88	1.4%	0.3%	2
Industrial - Passenger Car Rental and Hiring	L661100	39	2.0%	0.5%	200	3.2%	0.7%	5
Industrial - Carpentry Services	E324200	35	1.8%	0.5%	58	0.9%	0.2%	2
Industrial - Other Construction Services n.e.c.	E329900	33	1.7%	0.4%	134	2.1%	0.5%	4
Industrial - Road Freight Transport	I461000	30	1.6%	0.4%	83	1.3%	0.3%	3
Industrial - Other Heavy and Civil Engineering Construction	E310900	26	1.3%	0.3%	136	2.2%	0.5%	5
Industrial - Non-Residential Building Construction	E302000	25	1.3%	0.3%	174	2.8%	0.6%	7
Industrial - Courier Pick-up and Delivery Services	I510200	22	1.1%	0.3%	40	0.6%	0.1%	2
Industrial - Other Motor Vehicle and Transport Equipment Rental and Hiring	L661900	21	1.1%	0.3%	21	0.3%	0.1%	1
Industrial - Wine and Other Alcoholic Beverage Manufacturing	C121400	20	1.0%	0.3%	58	0.9%	0.2%	3
Industrial - Wooden Furniture and Upholstered Seat Manufacturing	C251100	20	1.0%	0.3%	41	0.6%	0.1%	2
Industrial - Other Machinery and Equipment Manufacturing n.e.c.	C249900	20	1.0%	0.3%	60	1.0%	0.2%	3
Industrial - Automotive Body, Paint and Interior Repair	S941200	19	1.0%	0.2%	108	1.7%	0.4%	6
Industrial - Roofing Services	E322300	17	0.9%	0.2%	64	1.0%	0.2%	4
Industrial - Concreting Services	E322100	17	0.9%	0.2%	51	0.8%	0.2%	3
Industrial - Other Electrical and Electronic Goods Wholesaling	F349400	17	0.9%	0.2%	74	1.2%	0.3%	4
Industrial - Air Conditioning and Heating Services	E323300	17	0.9%	0.2%	75	1.2%	0.3%	4
Industrial - Aircraft Manufacturing and Repair Services	C239400	16	0.8%	0.2%	73	1.2%	0.3%	5
Industrial - Road and Bridge Construction	E310100	15	0.8%	0.2%	119	1.9%	0.4%	8
Industrial - Commission Based Wholesaling	F380000	14	0.7%	0.2%	15	0.2%	0.1%	1
Industrial - Other Grocery Wholesaling	F360900	14	0.7%	0.2%	169	2.7%	0.6%	12
Industrial - Other Goods Wholesaling n.e.c.	F373900	14	0.7%	0.2%	22	0.3%	0.1%	2
Industrial - Liquor and Tobacco Product Wholesaling	F360600	11	0.6%	0.1%	22	0.3%	0.1%	2
Industrial - Bakery Product Manufacturing (Non-factory-based)	C117400	10	0.5%	0.1%	119	1.9%	0.4%	12
Industrial - Laundry and Dry-Cleaning Services	S953100	10	0.5%	0.1%	92	1.5%	0.3%	9
Industrial - Other Agricultural Product Wholesaling	F331900	9	0.5%	0.1%	21	0.3%	0.1%	2
Industrial - Urban Bus Transport (Including Tramway)	I462200	9	0.5%	0.1%	126	2.0%	0.5%	14
Industrial - Other Building Installation Services	E323900	9	0.5%	0.1%	12	0.2%	0.0%	1
Industrial - Other Hardware Goods Wholesaling	F333900	9	0.5%	0.1%	35	0.6%	0.1%	4
Industrial - Other Warehousing and Storage Services	I530900	9	0.4%	0.1%	7	0.1%	0.0%	1
Industrial - Electronic (except Domestic Appliance) and Precision Equipment	S942200	8	0.4%	0.1%	13	0.2%	0.0%	2
Industrial - Clothing and Footwear Wholesaling	F371200	8	0.4%	0.1%	42	0.7%	0.1%	5
Industrial - Other Manufacturing n.e.c.	C259900	8	0.4%	0.1%	20	0.3%	0.1%	3
Industrial - Clothing Manufacturing	C135100	7	0.4%	0.1%	17	0.3%	0.1%	2
Industrial - Beer Manufacturing	C121200	7	0.4%	0.1%	8	0.1%	0.0%	1
Industrial - Solid Waste Collection Services	D291100	7	0.4%	0.1%	63	1.0%	0.2%	9
Industrial - Printing	C161100	6	0.3%	0.1%	47	0.7%	0.2%	8
Industrial - Cut and Sewn Textile Product Manufacturing	C133300	6	0.3%	0.1%	14	0.2%	0.0%	2
Industrial - Other Fabricated Metal Product Manufacturing n.e.c.	C229900	6	0.3%	0.1%	14	0.2%	0.0%	2
Industrial - Other Transport Support Services n.e.c	I529900	6	0.3%	0.1%	9	0.1%	0.0%	2
Industrial - Glazing Services	E324500	6	0.3%	0.1%	23	0.4%	0.1%	4
Industrial - Medical and Surgical Equipment Manufacturing	C241200	5	0.3%	0.1%	8	0.1%	0.0%	2
Industrial - Confectionery Manufacturing	C118200	5	0.3%	0.1%	73	1.2%	0.3%	15
Industrial - Iron Smelting and Steel Manufacturing	C211000	5	0.3%	0.1%	5	0.1%	0.0%	1
Industrial - Other Non-Metallic Mineral Product Manufacturing	C209000	5	0.3%	0.1%	13	0.2%	0.0%	3
Industrial - Fire and Security Alarm Installation Services	E323400	5	0.3%	0.1%	13	0.2%	0.0%	3
Industrial - Hire of Construction Machinery with Operator	E329200	5	0.3%	0.1%	17	0.3%	0.1%	3
Industrial - Other Machinery and Equipment Repair and Maintenance	S942900	5	0.3%	0.1%	14	0.2%	0.0%	3
Industrial - Petroleum Product Wholesaling	F332100	5	0.2%	0.1%	18	0.3%	0.1%	4
Industrial - Toy and Sporting Goods Wholesaling	F373400	5	0.2%	0.1%	4	0.1%	0.0%	1
Industrial - Waste Treatment and Disposal Services	D292100	5	0.2%	0.1%	27	0.4%	0.1%	5
Industrial - Wooden Structural Fittings and Components Manufacturing	C149200	5	0.2%	0.1%	29	0.5%	0.1%	6
Industrial - Motor Vehicle Body and Trailer Manufacturing	C231200	4	0.2%	0.1%	4	0.1%	0.0%	1
Industrial - Dairy Produce Wholesaling	F360300	4	0.2%	0.1%	15	0.2%	0.1%	4
Industrial - Other Wood Product Manufacturing n.e.c.	C149900	4	0.2%	0.1%	13	0.2%	0.0%	3
Industrial - Heavy Machinery and Scaffolding Rental and Hiring	L663100	4	0.2%	0.1%	3	0.0%	0.0%	1
Industrial - Motor Vehicle New Part Wholesaling	F350400	4	0.2%	0.1%	11	0.2%	0.0%	3
Industrial - Automotive Electrical Services	S941100	4	0.2%	0.1%	11	0.2%	0.0%	3
Industrial - Cake and Pastry Manufacturing (Factory-based)	C117200	4	0.2%	0.1%	6	0.1%	0.0%	2
Industrial - Other Food Products Manufacturing n.e.c.	C119900	4	0.2%	0.1%	4	0.1%	0.0%	1

Industry	ANZSIC06	Business Count (n)	Share of IE Businesses (%)	Share of All Businesses (%)	Employment Count (n) *	Share of IE Employment (%)	Share of All Employment (%)	Average Business Size (MECs)
Industrial - Pharmaceutical and Toiletry Goods Wholesaling	F372000	4	0.2%	0.1%	11	0.2%	0.0%	3
Industrial - Interurban and Rural Bus Transport	I462100	4	0.2%	0.1%	41	0.6%	0.1%	10
Industrial - Other Water Transport Support Services	I521900	4	0.2%	0.1%	4	0.1%	0.0%	1
Industrial - Domestic Appliance Repair and Maintenance	S942100	4	0.2%	0.1%	7	0.1%	0.0%	2
Industrial - Metal Roof and Guttering Manufacturing (except Aluminium)	C222400	4	0.2%	0.0%	47	0.7%	0.2%	12
Industrial - Agricultural and Construction Machinery Wholesaling	F341100	4	0.2%	0.0%	8	0.1%	0.0%	2
Industrial - Concrete Product Manufacturing	C203400	4	0.2%	0.0%	8	0.1%	0.0%	2
Industrial - Jewellery and Silverware Manufacturing	C259100	3	0.2%	0.0%	6	0.1%	0.0%	2
Industrial - Cosmetic and Toiletry Preparation Manufacturing	C185200	3	0.2%	0.0%	4	0.1%	0.0%	1
Industrial - Ready-Mixed Concrete Manufacturing	C203300	3	0.2%	0.0%	27	0.4%	0.1%	9
Industrial - Fish and Seafood Wholesaling	F360400	3	0.2%	0.0%	13	0.2%	0.0%	4
Industrial - Furniture and Floor Coverings Wholesaling	F373100	3	0.2%	0.0%	4	0.1%	0.0%	1
Industrial - Timber Wholesaling	F333100	3	0.2%	0.0%	4	0.1%	0.0%	1
Industrial - Computer and Computer Peripherals Wholesaling	F349200	3	0.1%	0.0%	18	0.3%	0.1%	6
Industrial - Fruit and Vegetable Processing	C114000	3	0.1%	0.0%	3	0.0%	0.0%	1
Industrial - Structural Steel Fabricating	C222100	2	0.1%	0.0%	19	0.3%	0.1%	10
Industrial - Other Specialised Industrial Machinery and Equipment Wholesal	F341900	2	0.1%	0.0%	8	0.1%	0.0%	4
Industrial - Other Machinery and Equipment Wholesaling n	F349900	2	0.1%	0.0%	7	0.1%	0.0%	4
Industrial - Boatbuilding and Repair Services	C239200	2	0.1%	0.0%	3	0.1%	0.0%	2
Industrial - Industrial and Agricultural Chemical Product Wholesaling	F332300	2	0.1%	0.0%	9	0.1%	0.0%	5
Industrial - Human Pharmaceutical and Medicinal Product Manufacturing	C184100	2	0.1%	0.0%	16	0.3%	0.1%	8
Industrial - Ice Cream Manufacturing	C113200	2	0.1%	0.0%	14	0.2%	0.1%	7
Industrial - Other Furniture Manufacturing	C251900	2	0.1%	0.0%	3	0.1%	0.0%	2
Industrial - Soft Drink, Cordial and Syrup Manufacturing	C121100	2	0.1%	0.0%	2	0.0%	0.0%	1
Industrial - Spirit Manufacturing	C121300	2	0.1%	0.0%	12	0.2%	0.0%	6
Industrial - Textile Finishing and Other Textile Product Manufacturing	C133400	2	0.1%	0.0%	3	0.1%	0.0%	2
Industrial - Waste Remediation and Materials Recovery Services	D292200	2	0.1%	0.0%	6	0.1%	0.0%	3
Industrial - Structural Steel Erection Services	E322400	2	0.1%	0.0%	6	0.1%	0.0%	3
Industrial - Book and Magazine Wholesaling	F373500	2	0.1%	0.0%	2	0.0%	0.0%	1
Industrial - Car Wholesaling	F350100	2	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Kitchen and Dining Ware Wholesaling	F373300	2	0.1%	0.0%	12	0.2%	0.0%	6
Industrial - Textile Product Wholesaling	F371100	2	0.1%	0.0%	3	0.0%	0.0%	2
Industrial - Metal and Mineral Wholesaling	F332200	1.80	0.1%	0.0%	18	0.3%	0.1%	9
Industrial - Photographic, Optical and Ophthalmic Equipment Manufacturing	C241100	2	0.1%	0.0%	27	0.4%	0.1%	14
Industrial - Motor Vehicle Dismantling and Used Part Wholesaling	F350500	1	0.1%	0.0%	3	0.1%	0.0%	3
Industrial - Prepared Animal and Bird Feed Manufacturing	C119200	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Fruit and Vegetable Wholesaling	F360500	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Agricultural Machinery and Equipment Manufacturing	C246100	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Aluminium Rolling, Drawing, Extruding	C214200	1	0.1%	0.0%	7	0.1%	0.0%	7
Industrial - Architectural Aluminium Product Manufacturing	C222300	1	0.1%	0.0%	3	0.0%	0.0%	3
Industrial - Basic Inorganic Chemical Manufacturing	C181300	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Bread Manufacturing (Factory-based)	C117100	1	0.1%	0.0%	2	0.0%	0.0%	2
Industrial - Cereal, Pasta and Baking Mix Manufacturing	C116200	1	0.1%	0.0%	2	0.0%	0.0%	2
Industrial - Cleaning Compound Manufacturing	C185100	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Cured Meat and Smallgoods Manufacturing	C111300	1	0.1%	0.0%	2	0.0%	0.0%	2
Industrial - Electric Cable and Wire Manufacturing	C243100	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Milk and Cream Processing	C113100	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Mining and Construction Machinery Manufacturing	C246200	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Oil and Fat Manufacturing	C115000	1	0.1%	0.0%	2	0.0%	0.0%	2
Industrial - Other Ceramic Product Manufacturing	C202900	1	0.1%	0.0%	3	0.0%	0.0%	3
Industrial - Other Electrical Equipment Manufacturing	C243900	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Other Sheet Metal Product Manufacturing	C224000	1	0.1%	0.0%	2	0.0%	0.0%	2
Industrial - Other Specialised Machinery and Equipment Manufacturing	C246900	1	0.1%	0.0%	2	0.0%	0.0%	2
Industrial - Other Structural Metal Product Manufacturing	C222900	1	0.1%	0.0%	5	0.1%	0.0%	5
Industrial - Prefabricated Wooden Building Manufacturing	C149100	1	0.1%	0.0%	3	0.0%	0.0%	3
Industrial - Printing Support Services	C161200	1	0.1%	0.0%	2	0.0%	0.0%	2
Industrial - Steel Pipe and Tube Manufacturing	C212200	1	0.1%	0.0%	2	0.0%	0.0%	2
Industrial - Other Waste Collection Services	D291900	1	0.1%	0.0%	6	0.1%	0.0%	6
Industrial - Jewellery and Watch Wholesaling	F373200	1	0.1%	0.0%	1	0.0%	0.0%	1
Industrial - Meat, Poultry and Smallgoods Wholesaling	F360200	1	0.1%	0.0%	3	0.1%	0.0%	3
Industrial - Freight Forwarding Services	I529200	1	0.1%	0.0%	1	0.0%	0.0%	1
Rest of Manufacturing	*multiple*	-	0.0%	0.0%	-	0.0%	0.0%	*na*
Rest of Wholesale Trade	*multiple*	-	0.0%	0.0%	-	0.0%	0.0%	*na*
Total QLD Industrial Economy		1,928	100.0%	25.0%	6,249	100.0%	22.5%	3

Source: M.E, Statistics NZ Business Frame 2017, QLD and COD district plan zones.

Appendix 3 – TA/Region QLD IE Comparison

Businesses 2017 – According to QLD Identified Industrial Economy

ANZSIC Division	Industrial Economy Selection	Queenstown-Lakes District	Taupo District	Upper Hutt City	Wanganui District	Whakatane District	Dunedin City	Auckland Region	Otago Region	New Zealand
A	Selected Ag/Forestry/Fishing Support Services	50	82	8	55	88	87	490	402	6,116
C	Manufacturing	225	200	147	203	137	477	8,037	994	22,773
D	Waste Services Group Only	15	3	14	10	15	19	287	46	987
E	Construction	1,168	576	532	399	353	1,183	21,500	3,164	60,625
F	Wholesale Trade	154	120	79	129	69	384	9,962	750	21,000
I	Selected Transport, Postal and Warehousing	85	119	84	54	69	238	3,705	475	10,312
L	Selected Rental and Hiring Services	128	57	19	37	28	95	1,503	271	4,401
S	Selected Other Services	102	114	69	104	83	241	3,779	488	11,026
QLD Industrial Economy		1,928	1,270	952	991	842	2,724	49,263	6,589	137,240
Rest of Economy (all other ANZSICs)		5,782	3,649	2,155	3,192	3,307	9,181	141,573	22,372	426,048
Total Economy		7,710	4,919	3,106	4,183	4,149	11,905	190,835	28,962	563,287
Division Share of Each Area										
A	Selected Ag/Forestry/Fishing Support Services	0.7%	1.7%	0.2%	1.3%	2.1%	0.7%	0.3%	1.4%	1.1%
C	Manufacturing	2.9%	4.1%	4.7%	4.9%	3.3%	4.0%	4.2%	3.4%	4.0%
D	Waste Services Group Only	0.2%	0.1%	0.5%	0.2%	0.4%	0.2%	0.2%	0.2%	0.2%
E	Construction	15.2%	11.7%	17.1%	9.5%	8.5%	9.9%	11.3%	10.9%	10.8%
F	Wholesale Trade	2.0%	2.4%	2.5%	3.1%	1.7%	3.2%	5.2%	2.6%	3.7%
I	Selected Transport, Postal and Warehousing	1.1%	2.4%	2.7%	1.3%	1.7%	2.0%	1.9%	1.6%	1.8%
L	Selected Rental and Hiring Services	1.7%	1.2%	0.6%	0.9%	0.7%	0.8%	0.8%	0.9%	0.8%
S	Selected Other Services	1.3%	2.3%	2.2%	2.5%	2.0%	2.0%	2.0%	1.7%	2.0%
QLD Industrial Economy		25.0%	25.8%	30.6%	23.7%	20.3%	22.9%	25.8%	22.8%	24.4%
Rest of Economy (all other ANZSICs)		75.0%	74.2%	69.4%	76.3%	79.7%	77.1%	74.2%	77.2%	75.6%
Total Economy		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: M.E, Statistics NZ Business Frame 2017. Assesses each location in the context of QLD's defined industrial economy. This does not necessarily represent the industrial economy of each location. Industries that may form part each other areas industrial economy are captured in 'Rest of Economy'.

Employment 2017 – According to QLD Identified Industrial Economy

ANZSIC Division	Industrial Economy Selection	Queenstown-Lakes District	Taupo District	Upper Hutt City	Wanganui District	Whakatane District	Dunedin City	Auckland Region	Otago Region	New Zealand
A	Selected Ag/Forestry/Fishing Support Services	130	242	17	130	356	175	846	1,259	22,553
C	Manufacturing	862	1,226	964	2,805	1,101	4,020	80,603	9,649	239,580
D	Waste Services Group Only	103	18	87	56	60	123	2,351	282	6,378
E	Construction	3,465	1,661	1,385	1,602	1,146	5,033	70,005	11,737	212,472
F	Wholesale Trade	573	385	409	551	279	2,474	60,547	4,053	118,966
I	Selected Transport, Postal and Warehousing	312	497	219	725	437	1,420	24,990	2,586	65,227
L	Selected Rental and Hiring Services	371	119	17	49	69	254	5,129	741	12,049
S	Selected Other Services	434	360	188	314	242	975	12,848	1,888	38,510
QLD Industrial Economy		6,249	4,507	3,285	6,232	3,689	14,476	257,319	32,194	715,735
Rest of Economy (all other ANZSICs)		21,551	13,581	9,299	13,546	11,334	48,046	603,206	94,048	1,748,333
Total Economy		27,800	18,089	12,584	19,779	15,024	62,522	860,525	126,242	2,464,068
Division Share of Each Area										
A	Selected Ag/Forestry/Fishing Support Services	0.5%	1.3%	0.1%	0.7%	2.4%	0.3%	0.1%	1.0%	0.9%
C	Manufacturing	3.1%	6.8%	7.7%	14.2%	7.3%	6.4%	9.4%	7.6%	9.7%
D	Waste Services Group Only	0.4%	0.1%	0.7%	0.3%	0.4%	0.2%	0.3%	0.2%	0.3%
E	Construction	12.5%	9.2%	11.0%	8.1%	7.6%	8.1%	8.1%	9.3%	8.6%
F	Wholesale Trade	2.1%	2.1%	3.2%	2.8%	1.9%	4.0%	7.0%	3.2%	4.8%
I	Selected Transport, Postal and Warehousing	1.1%	2.7%	1.7%	3.7%	2.9%	2.3%	2.9%	2.0%	2.6%
L	Selected Rental and Hiring Services	1.3%	0.7%	0.1%	0.2%	0.5%	0.4%	0.6%	0.6%	0.5%
S	Selected Other Services	1.6%	2.0%	1.5%	1.6%	1.6%	1.6%	1.5%	1.5%	1.6%
QLD Industrial Economy		22.5%	24.9%	26.1%	31.5%	24.6%	23.2%	29.9%	25.5%	29.0%
Rest of Economy (all other ANZSICs)		77.5%	75.1%	73.9%	68.5%	75.4%	76.8%	70.1%	74.5%	71.0%
Total Economy		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Average Business Size (MECs)										
A	Selected Ag/Forestry/Fishing Support Services	3	3	2	2	4	2	2	3	4
C	Manufacturing	4	6	7	14	8	8	10	10	11
D	Waste Services Group Only	7	6	6	6	4	6	8	6	6
E	Construction	3	3	3	4	3	4	3	4	4
F	Wholesale Trade	4	3	5	4	4	6	6	5	6
I	Selected Transport, Postal and Warehousing	4	4	3	13	6	6	7	5	6
L	Selected Rental and Hiring Services	3	2	1	1	2	3	3	3	3
S	Selected Other Services	4	3	3	3	3	4	3	4	3
QLD Industrial Economy		3	4	3	6	4	5	5	5	5
Rest of Economy (all other ANZSICs)		4	4	4	4	3	5	4	4	4
Total Economy		4	4	4	5	4	5	5	4	4

Source: M.E, Statistics NZ Business Frame 2017. Assesses each location in the context of QLD's defined industrial economy. This does not necessarily represent the industrial economy of each location. Industries that may form part each other areas industrial economy are captured in 'Rest of Economy'.

Appendix 4 – TA/Region Manufacturing Comparison

Businesses 2017 – According to Manufacturing Sector Sub-Divisions

Manufacturing Sub-Division	Queenstown-Lakes District	Taupo District	Upper Hutt City	Wanganui District	Whakatane District	Dunedin City	Auckland Region	Otago Region	New Zealand
Food Product Manufacturing	34	22	12	29	23	72	1,204	144	3,367
Beverage and Tobacco Product Manufacturing	31	1	5	1	4	10	206	76	768
Textile, Leather, Clothing and Footwear Manufacturing	15	14	7	14	7	29	644	59	1,508
Wood Product Manufacturing	10	23	20	26	14	33	418	83	1,795
Pulp, Paper and Converted Paper Product Manufacturing	-	-	-	-	1	2	52	3	120
Printing	8	3	7	11	6	24	663	38	1,305
Petroleum and Coal Product Manufacturing	-	-	-	-	-	2	17	2	57
Basic Chemical and Chemical Product Manufacturing	7	3	2	5	1	16	257	32	632
Polymer Product and Rubber Product Manufacturing	-	2	11	6	2	20	322	26	724
Non-Metallic Mineral Product Manufacturing	13	10	4	9	5	17	300	56	972
Primary Metal and Metal Product Manufacturing	7	1	2	3	2	6	86	15	240
Fabricated Metal Product Manufacturing	15	38	26	27	22	69	1,010	125	2,988
Transport Equipment Manufacturing	23	20	6	8	8	36	590	72	1,597
Machinery and Equipment Manufacturing	32	43	30	41	28	93	1,330	164	4,190
Furniture and Other Manufacturing	33	21	14	22	15	46	940	99	2,511
Total Manufacturing Sector	225	200	147	203	137	477	8,037	994	22,773
Sub-Division Share of Each Area									
Food Product Manufacturing	14.9%	11.1%	8.1%	14.5%	16.5%	15.1%	15.0%	14.5%	14.8%
Beverage and Tobacco Product Manufacturing	13.8%	0.5%	3.5%	0.5%	2.9%	2.1%	2.6%	7.6%	3.4%
Textile, Leather, Clothing and Footwear Manufacturing	6.7%	6.9%	4.8%	6.9%	5.3%	6.0%	8.0%	6.0%	6.6%
Wood Product Manufacturing	4.3%	11.5%	13.5%	12.9%	10.1%	7.0%	5.2%	8.4%	7.9%
Pulp, Paper and Converted Paper Product Manufacturing	0.0%	0.0%	0.0%	0.0%	0.7%	0.5%	0.6%	0.3%	0.5%
Printing	3.3%	1.7%	5.0%	5.5%	4.4%	5.1%	8.2%	3.8%	5.7%
Petroleum and Coal Product Manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%	0.2%	0.2%	0.3%
Basic Chemical and Chemical Product Manufacturing	3.1%	1.5%	1.4%	2.5%	0.7%	3.4%	3.2%	3.2%	2.8%
Polymer Product and Rubber Product Manufacturing	0.0%	1.1%	7.7%	3.1%	1.5%	4.2%	4.0%	2.6%	3.2%
Non-Metallic Mineral Product Manufacturing	5.5%	4.8%	2.7%	4.4%	3.6%	3.5%	3.7%	5.7%	4.3%
Primary Metal and Metal Product Manufacturing	3.1%	0.5%	1.4%	1.5%	1.1%	1.3%	1.1%	1.5%	1.1%
Fabricated Metal Product Manufacturing	6.7%	18.8%	17.4%	13.2%	16.0%	14.6%	12.6%	12.5%	13.1%
Transport Equipment Manufacturing	10.0%	9.9%	4.3%	3.9%	6.1%	7.5%	7.3%	7.2%	7.0%
Machinery and Equipment Manufacturing	14.0%	21.4%	20.4%	20.3%	20.1%	19.6%	16.6%	16.5%	18.4%
Furniture and Other Manufacturing	14.5%	10.4%	9.8%	10.8%	10.9%	9.7%	11.7%	10.0%	11.0%
Total Manufacturing Sector	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: M.E, Statistics NZ Business Frame 2017.

Employment 2017 – According to Manufacturing Sector Sub-Divisions

Manufacturing Sub-Division	Queenstown-Lakes District	Taupo District	Upper Hutt City	Wanganui District	Whakatane District	Dunedin City	Auckland Region	Otago Region	New Zealand
Food Product Manufacturing	228	191	83	1,168	326	1,058	16,341	4,434	75,873
Beverage and Tobacco Product Manufacturing	80	2	29	3	38	112	3,064	413	7,311
Textile, Leather, Clothing and Footwear Manufacturing	34	31	19	434	16	196	4,565	383	10,693
Wood Product Manufacturing	45	477	86	166	58	254	3,119	617	18,292
Pulp, Paper and Converted Paper Product Manufacturing	-	-	-	-	215	32	1,846	33	4,817
Printing	48	18	11	58	69	144	4,232	369	8,543
Petroleum and Coal Product Manufacturing	-	-	-	-	-	13	116	13	1,043
Basic Chemical and Chemical Product Manufacturing	23	5	111	28	1	131	3,775	173	7,491
Polymer Product and Rubber Product Manufacturing	-	3	94	112	5	101	6,131	123	11,696
Non-Metallic Mineral Product Manufacturing	52	36	16	69	34	119	3,452	293	8,821
Primary Metal and Metal Product Manufacturing	13	3	7	8	1	67	1,911	83	4,213
Fabricated Metal Product Manufacturing	88	181	156	276	111	663	10,080	1,030	26,645
Transport Equipment Manufacturing	81	61	13	103	103	278	4,783	413	13,079
Machinery and Equipment Manufacturing	100	165	297	187	92	619	12,603	920	30,646
Furniture and Other Manufacturing	70	55	43	195	33	233	4,583	351	10,416
Total Manufacturing Sector	862	1,226	964	2,805	1,101	4,020	80,603	9,649	239,580
Sub-Division Share of Each Area									
Food Product Manufacturing	26.5%	15.6%	8.6%	41.6%	29.6%	26.3%	20.3%	45.9%	31.7%
Beverage and Tobacco Product Manufacturing	9.3%	0.1%	3.0%	0.1%	3.5%	2.8%	3.8%	4.3%	3.1%
Textile, Leather, Clothing and Footwear Manufacturing	3.9%	2.5%	1.9%	15.5%	1.4%	4.9%	5.7%	4.0%	4.5%
Wood Product Manufacturing	5.2%	38.9%	8.9%	5.9%	5.3%	6.3%	3.9%	6.4%	7.6%
Pulp, Paper and Converted Paper Product Manufacturing	0.0%	0.0%	0.0%	0.0%	19.5%	0.8%	2.3%	0.3%	2.0%
Printing	5.6%	1.4%	1.2%	2.1%	6.2%	3.6%	5.3%	3.8%	3.6%
Petroleum and Coal Product Manufacturing	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.1%	0.1%	0.4%
Basic Chemical and Chemical Product Manufacturing	2.6%	0.4%	11.5%	1.0%	0.1%	3.3%	4.7%	1.8%	3.1%
Polymer Product and Rubber Product Manufacturing	0.0%	0.2%	9.8%	4.0%	0.4%	2.5%	7.6%	1.3%	4.9%
Non-Metallic Mineral Product Manufacturing	6.0%	2.9%	1.7%	2.5%	3.1%	3.0%	4.3%	3.0%	3.7%
Primary Metal and Metal Product Manufacturing	1.5%	0.2%	0.7%	0.3%	0.1%	1.7%	2.4%	0.9%	1.8%
Fabricated Metal Product Manufacturing	10.2%	14.8%	16.1%	9.8%	10.1%	16.5%	12.5%	10.7%	11.1%
Transport Equipment Manufacturing	9.4%	5.0%	1.4%	3.7%	9.3%	6.9%	5.9%	4.3%	5.5%
Machinery and Equipment Manufacturing	11.6%	13.5%	30.8%	6.7%	8.4%	15.4%	15.6%	9.5%	12.8%
Furniture and Other Manufacturing	8.1%	4.5%	4.4%	6.9%	3.0%	5.8%	5.7%	3.6%	4.3%
Total Manufacturing Sector	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Average Business Size (MECs)									
Food Product Manufacturing	7	9	7	40	14	15	14	31	23
Beverage and Tobacco Product Manufacturing	3	2	6	3	10	11	15	5	10
Textile, Leather, Clothing and Footwear Manufacturing	2	2	3	31	2	7	7	6	7
Wood Product Manufacturing	5	21	4	6	4	8	7	7	10
Pulp, Paper and Converted Paper Product Manufacturing	-	-	-	-	215	14	36	10	40
Printing	6	5	2	5	11	6	6	10	7
Petroleum and Coal Product Manufacturing	-	-	-	-	-	5	7	5	18
Basic Chemical and Chemical Product Manufacturing	3	2	56	6	1	8	15	5	12
Polymer Product and Rubber Product Manufacturing	-	1	8	18	2	5	19	5	16
Non-Metallic Mineral Product Manufacturing	4	4	4	8	7	7	12	5	9
Primary Metal and Metal Product Manufacturing	2	3	3	3	1	11	22	6	18
Fabricated Metal Product Manufacturing	6	5	6	10	5	10	10	8	9
Transport Equipment Manufacturing	4	3	2	13	12	8	8	6	8
Machinery and Equipment Manufacturing	3	4	10	5	3	7	9	6	7
Furniture and Other Manufacturing	2	3	3	9	2	5	5	4	4
Total Manufacturing Sector	4	6	7	14	8	8	10	10	11

Source: M.E, Statistics NZ Business Frame 2017.

Appendix 5 – Economic Linkages Queenstown Ward

Upstream Linkages (Inputs) - Sums to 100%

Wanaka Ward Inputs by Sector	
Construction	0.3%
Water, sewerage, drainage and waste services	0.2%
Professional, scientific, technical, administrative and support services	0.2%
Rental, hiring and real estate services	0.1%
Non-metallic mineral product manufacturing	0.1%
Wholesale trade	0.1%
Other transport, postal, courier, transport support and warehousing services.	0.0%
Fabricated metal product manufacturing	0.0%
Other Sectors	0.2%
Total Wanaka	**1.2%**

Arrowtown Ward Inputs by Sector	
Construction	0.4%
Professional, scientific, technical, administrative and support services	0.1%
Rental, hiring and real estate services	0.0%
Machinery and equipment manufacturing	0.0%
Personal and other services	0.0%
Non-metallic mineral product manufacturing	0.0%
Other transport, postal, courier, transport support and warehousing services.	0.0%
Road transport	0.0%
Other Sectors	0.1%
Total Arrowtown	**0.7%**

Queenstown-Wakatipu Inputs by Sector	
Construction	19.8%
Professional, scientific, technical, administrative and support services	2.6%
Rental, hiring and real estate services	1.8%
Other transport, postal, courier, transport support and warehousing services.	0.9%
Personal and other services	0.7%
Wholesale trade	0.6%
Finance	0.6%
Retail Trade	0.4%
Other Sectors	2.9%
Total Queenstown	**30.2%**

Dunedin Inputs by Sector	
Wholesale trade	0.3%
Professional, scientific, technical, administrative and support services	0.2%
Fabricated metal product manufacturing	0.2%
Other transport, postal, courier, transport support and warehousing services.	0.1%
Construction	0.1%
Machinery and equipment manufacturing	0.1%
Road transport	0.1%
Rental, hiring and real estate services	0.1%
Other Sectors	0.6%
Total Dunedin	**1.8%**

Rest of Otago Region Inputs by Sector	
Construction	0.9%
Wood product manufacturing	0.6%
Mining, quarrying, exploration and other mining support services	0.4%
Electricity generation and supply	0.4%
Wholesale trade	0.3%
Rental, hiring and real estate services	0.3%
Non-metallic mineral product manufacturing	0.3%
Professional, scientific, technical, administrative and support services	0.3%
Other Sectors	1.4%
Total Rest of Otago	**4.9%**

Rest of New Zealand Inputs by Sector	
Fabricated metal product manufacturing	2.7%
Petroleum and coal product manufacturing	1.6%
Wholesale trade	1.2%
Non-metallic mineral product manufacturing	1.2%
Chemical, polymer and rubber product manufacturing	0.7%
Road transport	0.6%
Rental, hiring and real estate services	0.5%
Wood product manufacturing	0.5%
Other Sectors	3.8%
Total Rest of NZ	**12.8%**

Other Inputs	
Taxes on products	0.9%
Compensation of Employees	18.5%
Operating Surplus	10.9%
Consumption of Fixed Capital	7.2%
Other Taxes on products	0.7%
Subsidies	-0.2%
International Imports	10.3%

Industrial Economy Queenstown-Wakatipu Ward

Wanaka Ward Outputs by Sector	
Construction	0.6%
Rental, hiring and real estate services	0.2%
Accommodation and food services	0.1%
Professional, scientific, technical, administrative and support services	0.1%
Retail Trade	0.0%
Water, sewerage, drainage and waste services	0.0%
Sheep, beef cattle and grain farming	0.0%
Other transport, postal, courier, transport support and warehousing services.	0.0%
Other Sectors	0.4%
Total Wanaka	**1.5%**

Arrowtown Ward Outputs by Sector	
Construction	0.7%
Rental, hiring and real estate services	0.1%
Accommodation and food services	0.1%
Professional, scientific, technical, administrative and support services	0.0%
Ownership of owner-occupied dwellings	0.0%
Retail Trade	0.0%
Road transport	0.0%
Other transport, postal, courier, transport support and warehousing services.	0.0%
Other Sectors	0.1%
Total Arrowtown	**1.0%**

Queenstown-Wakatipu Ward Outputs by Sector	
Construction	21.4%
Rental, hiring and real estate services	3.2%
Accommodation and food services	2.3%
Ownership of owner-occupied dwellings	1.7%
Air and space transport	1.7%
Other transport, postal, courier, transport support and warehousing services.	1.5%
Professional, scientific, technical, administrative and support services	1.3%
Arts and recreation services	0.9%
Other Sectors	3.6%
Total Queenstown	**37.5%**

Dunedin Outputs by Sector	
Construction	0.9%
Rental, hiring and real estate services	0.3%
Education and training	0.1%
Accommodation and food services	0.1%
Professional, scientific, technical, administrative and support services	0.1%
Other transport, postal, courier, transport support and warehousing services.	0.1%
Wholesale trade	0.1%
Road transport	0.1%
Other Sectors	0.7%
Total Dunedin	**2.4%**

Rest of Otago Region Outputs by Sector	
Construction	4.6%
Ownership of owner-occupied dwellings	0.6%
Rental, hiring and real estate services	0.6%
Sheep, beef cattle and grain farming	0.5%
Mining, quarrying, exploration and other mining support services	0.5%
Meat and meat product manufacturing	0.5%
Dairy product manufacturing	0.3%
Road transport	0.2%
Other Sectors	2.3%
Total Rest of Otago	**10.1%**

Rest of New Zealand Outputs by Sector	
Construction	1.6%
Wholesale trade	0.4%
Rental, hiring and real estate services	0.4%
Professional, scientific, technical, administrative and support services	0.3%
Road transport	0.3%
Air and space transport	0.3%
Meat and meat product manufacturing	0.3%
Other transport, postal, courier, transport support and warehousing services.	0.2%
Other Sectors	2.5%
Total Rest of NZ	**6.3%**

Intermediate Inputs

Wanaka Ward Final Demand	
Hholds/Govt/NPISH	0.4%

Arrowtown Ward Final Demand	
Hholds/Govt/NPISH	0.2%

Queenstown-Wakatipu Ward Final Demand	
Hholds/Govt/NPISH	3.1%

Dunedin Final Demand	
Hholds/Govt/NPISH	0.8%

Rest of Otago Region Final Demand	
Hholds/Govt/NPISH	1.1%

Rest of New Zealand Final Demand	
Hholds/Govt/NPISH	1.0%

Final Demand

Wanaka Ward Other Consumption	
GFCF, Change in Inventories, International Exports	0.8%

Arrowtown Ward Other Consumption	
GFCF, Change in Inventories, International Exports	0.8%

Queenstown-Wakatipu Ward Other Consumption	
GFCF, Change in Inventories, International Exports	22.2%

Dunedin Other Consumption	
GFCF, Change in Inventories, International Exports	2.3%

Rest of Otago Other Consumption	
GFCF, Change in Inventories, International Exports	5.3%

Rest of New Zealand Other Consumption	
GFCF, Change in Inventories, International Exports	3.0%

International Exports / Other

Downstream Linkages (Outputs) - Sums to 100%

Source: M.E (Queenstown EFM Multi-Regional Input-Output Table)

Appendix 6 – Economic Linkages Wanaka Ward

Upstream Linkages (Inputs) - Sums to 100%

Wanaka Ward Inputs by Sector	
Construction	19%
Professional, scientific, technical, administrative and support services	2%
Personal and other services	1%
Rental, hiring and real estate services	1%
Non-metallic mineral product manufacturing	0%
Wholesale trade	0%
Other transport, postal, courier, transport support and warehousing services.	0%
Retail Trade	0%
Other Sectors	2.5%
Total Wanaka	**27.8%**

Arrowtown Ward Inputs by Sector	
Construction	0.2%
Professional, scientific, technical, administrative and support services	0.1%
Rental, hiring and real estate services	0.0%
Machinery and equipment manufacturing	0.0%
Non-metallic mineral product manufacturing	0.0%
Road transport	0.0%
Other transport, postal, courier, transport support and warehousing services.	0.0%
Wholesale trade	0.0%
Other Sectors	0.0%
Total Arrowtown	**0.5%**

Queenstown-Wakatipu Inputs by Sector	
Construction	1.1%
Professional, scientific, technical, administrative and support services	0.6%
Rental, hiring and real estate services	0.3%
Other transport, postal, courier, transport support and warehousing services.	0.2%
Wholesale trade	0.2%
Non-metallic mineral product manufacturing	0.1%
Retail Trade	0.1%
Road transport	0.1%
Other Sectors	0.5%
Total Queenstown	**3.1%**

Dunedin Inputs by Sector	
Construction	0.3%
Wholesale trade	0.3%
Professional, scientific, technical, administrative and support services	0.3%
Machinery and equipment manufacturing	0.2%
Other transport, postal, courier, transport support and warehousing services.	0.2%
Road transport	0.1%
Fabricated metal product manufacturing	0.1%
Information media and telecommunications	0.1%
Other Sectors	0.7%
Total Dunedin	**2.3%**

Rest of Otago Region Inputs by Sector	
Construction	1.2%
Wood product manufacturing	0.6%
Electricity generation and supply	0.6%
Professional, scientific, technical, administrative and support services	0.4%
Wholesale trade	0.4%
Mining, quarrying, exploration and other mining support services	0.4%
Rental, hiring and real estate services	0.3%
Road transport	0.3%
Other Sectors	1.7%
Total Rest of Otago	**5.8%**

Rest of New Zealand Inputs by Sector	
Fabricated metal product manufacturing	2.6%
Wholesale trade	1.5%
Petroleum and coal product manufacturing	1.4%
Non-metallic mineral product manufacturing	1.2%
Chemical, polymer and rubber product manufacturing	0.9%
Road transport	0.8%
Machinery and equipment manufacturing	0.6%
Wood product manufacturing	0.6%
Other Sectors	5.3%
Total Rest of NZ	**14.7%**

Other Inputs	
Taxes on products	1.0%
Compensation of Employees	18.0%
Operating Surplus	10.5%
Consumption of Fixed Capital	4.6%
Other Taxes on products	0.7%
Subsidies	-0.2%
International Imports	11.2%

Industrial Economy Wanaka Ward

Wanaka Ward Outputs by Sector	
Construction	20.6%
Rental, hiring and real estate services	2.5%
Ownership of owner-occupied dwellings	2.0%
Accommodation and food services	1.1%
Water, sewerage, drainage and waste services	0.8%
Professional, scientific, technical, administrative and support services	0.7%
Sheep, beef cattle and grain farming	0.4%
Transport equipment manufacturing	0.3%
Other Sectors	3.5%
Total Wanaka	**32.0%**

Arrowtown Ward Outputs by Sector	
Construction	0.5%
Accommodation and food services	0.1%
Professional, scientific, technical, administrative and support services	0.0%
Rental, hiring and real estate services	0.0%
Ownership of owner-occupied dwellings	0.0%
Other transport, postal, courier, transport support and warehousing services.	0.0%
Retail Trade	0.0%
Agriculture, forestry and fishing support services	0.0%
Other Sectors	0.0%
Total Arrowtown	**0.7%**

Queenstown-Wakatipu Ward Outputs by Sector	
Construction	1.5%
Accommodation and food services	0.5%
Arts and recreation services	0.2%
Rental, hiring and real estate services	0.2%
Professional, scientific, technical, administrative and support services	0.1%
Air and space transport	0.1%
Other transport, postal, courier, transport support and warehousing services.	0.1%
Health care and social assistance	0.1%
Other Sectors	0.6%
Total Queenstown	**3.4%**

Dunedin Outputs by Sector	
Construction	1.3%
Rental, hiring and real estate services	0.3%
Health care and social assistance	0.2%
Accommodation and food services	0.1%
Education and training	0.1%
Professional, scientific, technical, administrative and support services	0.1%
Wholesale trade	0.1%
Ownership of owner-occupied dwellings	0.1%
Other Sectors	0.8%
Total Dunedin	**3.1%**

Rest of Otago Region Outputs by Sector	
Construction	6.0%
Sheep, beef cattle and grain farming	0.7%
Ownership of owner-occupied dwellings	0.7%
Rental, hiring and real estate services	0.6%
Mining, quarrying, exploration and other mining support services	0.5%
Meat and meat product manufacturing	0.3%
Dairy cattle farming	0.3%
Dairy product manufacturing	0.3%
Other Sectors	2.7%
Total Rest of Otago	**12.1%**

Rest of New Zealand Outputs by Sector	
Construction	2.5%
Rental, hiring and real estate services	0.3%
Wholesale trade	0.3%
Professional, scientific, technical, administrative and support services	0.2%
Fabricated metal product manufacturing	0.2%
Ownership of owner-occupied dwellings	0.2%
Machinery and equipment manufacturing	0.2%
Meat and meat product manufacturing	0.2%
Other Sectors	2.5%
Total Rest of NZ	**6.6%**

Intermediate Inputs

Wanaka Ward Final Demand	
Hholds/Govt/NPISH	3.0%

Arrowtown Ward Final Demand	
Hholds/Govt/NPISH	0.3%

Queenstown-Wakatipu Ward Final Demand	
Hholds/Govt/NPISH	1.0%

Dunedin Final Demand	
Hholds/Govt/NPISH	1.4%

Rest of Otago Region Final Demand	
Hholds/Govt/NPISH	2.3%

Rest of New Zealand Final Demand	
Hholds/Govt/NPISH	1.0%

Final Demand

Wanaka Ward Other Consumption	
GFCF, Change in Inventories, International Exports	18.9%

Arrowtown Ward Other Consumption	
GFCF, Change in Inventories, International Exports	0.4%

Queenstown-Wakatipu Ward Other Consumption	
GFCF, Change in Inventories, International Exports	1.0%

Dunedin Other Consumption	
GFCF, Change in Inventories, International Exports	3.1%

Rest of Otago Other Consumption	
GFCF, Change in Inventories, International Exports	6.4%

Rest of New Zealand Other Consumption	
GFCF, Change in Inventories, International Exports	3.4%

International Exports / Other

Downstream Linkages (Outputs) - Sums to 100%

Source: M.E (Queenstown EFM Multi-Regional Input-Output Table)

Appendix 7 – Economic Linkages Arrowtown Ward

Upstream Linkages (Inputs) - Sums to 100%

Wanaka Ward Inputs by Sector	
Construction	2%
Professional, scientific, technical, administrative and support services	0%
Water, sewerage, drainage and waste services	0%
Rental, hiring and real estate services	0%
Non-metallic mineral product manufacturing	0%
Wholesale trade	0%
Retail Trade	0%
Other transport, postal, courier, transport support and warehousing services.	0%
Other Sectors	0.4%
Total Wanaka	**3.2%**

Arrowtown Ward Inputs by Sector	
Construction	16.9%
Professional, scientific, technical, administrative and support services	0.7%
Personal and other services	0.5%
Rental, hiring and real estate services	0.1%
Machinery and equipment manufacturing	0.1%
Other transport, postal, courier, transport support and warehousing services.	0.1%
Retail Trade	0.1%
Non-metallic mineral product manufacturing	0.1%
Other Sectors	0.3%
Total Arrowtown	**18.9%**

Queenstown-Wakatipu Inputs by Sector	
Construction	6.1%
Professional, scientific, technical, administrative and support services	1.3%
Rental, hiring and real estate services	0.6%
Other transport, postal, courier, transport support and warehousing services.	0.4%
Wholesale trade	0.3%
Retail Trade	0.2%
Finance	0.2%
Non-metallic mineral product manufacturing	0.2%
Other Sectors	1.1%
Total Queenstown	**10.5%**

Dunedin Inputs by Sector	
Wholesale trade	0.3%
Professional, scientific, technical, administrative and support services	0.3%
Construction	0.3%
Machinery and equipment manufacturing	0.2%
Other transport, postal, courier, transport support and warehousing services.	0.2%
Fabricated metal product manufacturing	0.2%
Road transport	0.1%
Non-metallic mineral product manufacturing	0.1%
Other Sectors	0.6%
Total Dunedin	**2.2%**

Rest of Otago Region Inputs by Sector	
Construction	1.3%
Wood product manufacturing	0.8%
Electricity generation and supply	0.6%
Wholesale trade	0.4%
Professional, scientific, technical, administrative and support services	0.4%
Mining, quarrying, exploration and other mining support services	0.3%
Rental, hiring and real estate services	0.3%
Agriculture, forestry and fishing support services	0.3%
Other Sectors	1.6%
Total Rest of Otago	**5.9%**

Rest of New Zealand Inputs by Sector	
Fabricated metal product manufacturing	2.8%
Wholesale trade	1.5%
Petroleum and coal product manufacturing	1.5%
Non-metallic mineral product manufacturing	1.3%
Chemical, polymer and rubber product manufacturing	0.9%
Wood product manufacturing	0.7%
Road transport	0.6%
Machinery and equipment manufacturing	0.6%
Other Sectors	4.5%
Total Rest of NZ	**14.5%**

Other Inputs	
Taxes on products	1.1%
Compensation of Employees	16.9%
Operating Surplus	10.1%
Consumption of Fixed Capital	4.7%
Other Taxes on products	0.6%
Subsidies	-0.3%
International Imports	11.5%

Industrial Economy Arrowtown Ward

Wanaka Ward Outputs by Sector	
Construction	1.1%
Rental, hiring and real estate services	0.2%
Accommodation and food services	0.1%
Sheep, beef cattle and grain farming	0.1%
Horticulture and fruit growing	0.1%
Professional, scientific, technical, administrative and support services	0.1%
Water, sewerage, drainage and waste services	0.0%
Other transport, postal, courier, transport support and warehousing services.	0.0%
Other Sectors	0.4%
Total Wanaka	**2.1%**

Arrowtown Ward Outputs by Sector	
Construction	17.1%
Ownership of owner-occupied dwellings	2.4%
Rental, hiring and real estate services	0.8%
Professional, scientific, technical, administrative and support services	0.6%
Accommodation and food services	0.2%
Agriculture, forestry and fishing support services	0.1%
Furniture and other manufacturing	0.1%
Retail Trade	0.1%
Other Sectors	0.6%
Total Arrowtown	**22.0%**

Queenstown-Wakatipu Ward Outputs by Sector	
Construction	4.3%
Rental, hiring and real estate services	0.8%
Accommodation and food services	0.6%
Air and space transport	0.3%
Professional, scientific, technical, administrative and support services	0.3%
Arts and recreation services	0.3%
Other transport, postal, courier, transport support and warehousing services.	0.2%
Horticulture and fruit growing	0.2%
Other Sectors	1.3%
Total Queenstown	**8.3%**

Dunedin Outputs by Sector	
Construction	1.6%
Rental, hiring and real estate services	0.5%
Education and training	0.1%
Professional, scientific, technical, administrative and support services	0.1%
Wholesale trade	0.1%
Forestry and logging	0.1%
Health care and social assistance	0.1%
Other transport, postal, courier, transport support and warehousing services.	0.1%
Other Sectors	0.7%
Total Dunedin	**3.3%**

Rest of Otago Region Outputs by Sector	
Construction	8.0%
Ownership of owner-occupied dwellings	1.0%
Rental, hiring and real estate services	0.9%
Sheep, beef cattle and grain farming	0.8%
Mining, quarrying, exploration and other mining support services	0.7%
Meat and meat product manufacturing	0.4%
Dairy cattle farming	0.4%
Agriculture, forestry and fishing support services	0.4%
Other Sectors	2.5%
Total Rest of Otago	**15.0%**

Rest of New Zealand Outputs by Sector	
Construction	3.0%
Rental, hiring and real estate services	0.4%
Wholesale trade	0.4%
Ownership of owner-occupied dwellings	0.3%
Professional, scientific, technical, administrative and support services	0.3%
Fabricated metal product manufacturing	0.3%
Machinery and equipment manufacturing	0.3%
Road transport	0.2%
Other Sectors	2.9%
Total Rest of NZ	**8.2%**

Intermediate Inputs

Wanaka Ward Final Demand	
Hholds/Govt/NPISH	0.3%

Arrowtown Ward Final Demand	
Hholds/Govt/NPISH	0.9%

Queenstown-Wakatipu Ward Final Demand	
Hholds/Govt/NPISH	0.8%

Dunedin Final Demand	
Hholds/Govt/NPISH	0.4%

Rest of Otago Region Final Demand	
Hholds/Govt/NPISH	0.7%

Rest of New Zealand Final Demand	
Hholds/Govt/NPISH	1.0%

Final Demand

Wanaka Ward Other Consumption	
GFCF, Change in Inventories, International Exports	0.9%

Arrowtown Ward Other Consumption	
GFCF, Change in Inventories, International Exports	14.6%

Queenstown-Wakatipu Ward Other Consumption	
GFCF, Change in Inventories, International Exports	3.3%

Dunedin Other Consumption	
GFCF, Change in Inventories, International Exports	4.2%

Rest of Otago Other Consumption	
GFCF, Change in Inventories, International Exports	9.3%

Rest of New Zealand Other Consumption	
GFCF, Change in Inventories, International Exports	4.6%

International Exports / Other

Downstream Linkages (Outputs) - Sums to 100%

Source: M.E (Queenstown EFM Multi-Regional Input-Output Table)

Appendix 8 - Economic Linkages Rest of Otago

Upstream Linkages (Inputs) - Sums to 100%

Wanaka Ward Inputs by Sector	
Construction	0.7%
Sheep, beef cattle and grain farming	0.4%
Professional, scientific, technical, administrative and support services	0.1%
Poultry, deer and other livestock farming	0.1%
Water, sewerage, drainage and waste services	0.1%
Rental, hiring and real estate services	0.1%
Wholesale trade	0.0%
Retail Trade	0.0%
Other Sectors	0.2%
Total Wanaka	**1.8%**

Arrowtown Ward Inputs by Sector	
Construction	0.2%
Professional, scientific, technical, administrative and support services	0.1%
Rental, hiring and real estate services	0.0%
Road transport	0.0%
Agriculture, forestry and fishing support services	0.0%
Retail Trade	0.0%
Wholesale trade	0.0%
Other transport, postal, courier, transport support and warehousing services.	0.0%
Other Sectors	0.0%
Total Arrowtown	**0.4%**

Queenstown-Wakatipu Inputs by Sector	
Construction	1.4%
Professional, scientific, technical, administrative and support services	0.3%
Sheep, beef cattle and grain farming	0.2%
Rental, hiring and real estate services	0.2%
Other transport, postal, courier, transport support and warehousing services.	0.2%
Retail Trade	0.1%
Wholesale trade	0.1%
Road transport	0.1%
Other Sectors	0.4%
Total Queenstown	**2.9%**

Dunedin Inputs by Sector	
Sheep, beef cattle and grain farming	1.5%
Professional, scientific, technical, administrative and support services	0.8%
Other transport, postal, courier, transport support and warehousing services.	0.8%
Construction	0.7%
Road transport	0.6%
Poultry, deer and other livestock farming	0.5%
Wholesale trade	0.5%
Rental, hiring and real estate services	0.3%
Other Sectors	2.1%
Total Dunedin	**7.8%**

Rest of Otago Region Inputs by Sector	
Sheep, beef cattle and grain farming	12.1%
Construction	5.7%
Dairy product manufacturing	2.2%
Agriculture, forestry and fishing support services	1.3%
Professional, scientific, technical, administrative and support services	1.0%
Road transport	0.9%
Electricity generation and supply	0.8%
Wood product manufacturing	0.6%
Other Sectors	5.1%
Total Rest of Otago	**29.6%**

Rest of New Zealand Inputs by Sector	
Dairy cattle farming	3.6%
Petroleum and coal product manufacturing	1.6%
Road transport	1.6%
Fabricated metal product manufacturing	1.3%
Wholesale trade	1.3%
Dairy product manufacturing	1.1%
Chemical, polymer and rubber product manufacturing	1.0%
Professional, scientific, technical, administrative and support services	0.9%
Other Sectors	7.9%
Total Rest of NZ	**20.4%**

Other Inputs	
Taxes on products	0.7%
Compensation of Employees	18.9%
Operating Surplus	5.8%
Consumption of Fixed Capital	4.4%
Other Taxes on products	0.6%
Subsidies	-0.4%
International Imports	7.1%

Industrial Economy Rest of Otago Region

Wanaka Ward Outputs by Sector	
Construction	0.3%
Accommodation and food services	0.1%
Sheep, beef cattle and grain farming	0.1%
Horticulture and fruit growing	0.0%
Retail Trade	0.0%
Rental, hiring and real estate services	0.0%
Professional, scientific, technical, administrative and support services	0.0%
Agriculture, forestry and fishing support services	0.0%
Other Sectors	0.2%
Total Wanaka	**0.8%**

Arrowtown Ward Outputs by Sector	
Construction	0.1%
Accommodation and food services	0.0%
Professional, scientific, technical, administrative and support services	0.0%
Agriculture, forestry and fishing support services	0.0%
Ownership of owner-occupied dwellings	0.0%
Retail Trade	0.0%
Rental, hiring and real estate services	0.0%
Dairy product manufacturing	0.0%
Other Sectors	0.0%
Total Arrowtown	**0.2%**

Queenstown-Wakatipu Ward Outputs by Sector	
Construction	0.7%
Accommodation and food services	0.4%
Arts and recreation services	0.1%
Horticulture and fruit growing	0.1%
Professional, scientific, technical, administrative and support services	0.1%
Retail Trade	0.1%
Rental, hiring and real estate services	0.0%
Wholesale trade	0.0%
Other Sectors	0.4%
Total Queenstown	**1.8%**

Dunedin Outputs by Sector	
Construction	2.2%
Accommodation and food services	0.5%
Forestry and logging	0.3%
Wholesale trade	0.3%
Rental, hiring and real estate services	0.3%
Other food manufacturing	0.2%
Education and training	0.2%
Sheep, beef cattle and grain farming	0.2%
Other Sectors	2.5%
Total Dunedin	**6.7%**

Rest of Otago Region Outputs by Sector	
Construction	6.2%
Dairy product manufacturing	2.6%
Sheep, beef cattle and grain farming	2.4%
Agriculture, forestry and fishing support services	1.1%
Horticulture and fruit growing	1.0%
Meat and meat product manufacturing	0.9%
Forestry and logging	0.9%
Dairy cattle farming	0.8%
Other Sectors	5.3%
Total Rest of Otago	**21.2%**

Rest of New Zealand Outputs by Sector	
Construction	1.2%
Dairy product manufacturing	0.5%
Wholesale trade	0.5%
Road transport	0.4%
Meat and meat product manufacturing	0.3%
Other food manufacturing	0.3%
Professional, scientific, technical, administrative and support services	0.2%
Accommodation and food services	0.2%
Other Sectors	2.9%
Total Rest of NZ	**6.5%**

Intermediate Inputs

Wanaka Ward Final Demand	
Hholds/Govt/NPISH	0.2%

Arrowtown Ward Final Demand	
Hholds/Govt/NPISH	0.1%

Queenstown-Wakatipu Ward Final Demand	
Hholds/Govt/NPISH	0.5%

Dunedin Final Demand	
Hholds/Govt/NPISH	3.5%

Rest of Otago Region Final Demand	
Hholds/Govt/NPISH	2.7%

Rest of New Zealand Final Demand	
Hholds/Govt/NPISH	2.2%

Final Demand

Wanaka Ward Other Consumption	
GFCF, Change in Inventories, International Exports	0.4%

Arrowtown Ward Other Consumption	
GFCF, Change in Inventories, International Exports	0.1%

Queenstown-Wakatipu Ward Other Consumption	
GFCF, Change in Inventories, International Exports	0.7%

Dunedin Other Consumption	
GFCF, Change in Inventories, International Exports	5.1%

Rest of Otago Other Consumption	
GFCF, Change in Inventories, International Exports	39.9%

Rest of New Zealand Other Consumption	
GFCF, Change in Inventories, International Exports	7.3%

International Exports / Other

Downstream Linkages (Outputs) - Sums to 100%

Source: M.E (Queenstown EFM Multi-Regional Input-Output Table)

Appendix 9 – Rural-Urban Industrial Economy

Businesses 2017

Industry	ANZSIC06	Division	Urban Environment Business Count	Rural Environment Business Count	Total QLD Business Count (2017)	Urban Share of QLD (%)	Rural Share of QLD (%)	Total QLD
Industrial - House Construction	E301100	E	330	62	392	84.1%	15.9%	100.0%
Industrial - Electrical Services	E323200	E	70	7	78	90.5%	9.5%	100.0%
Industrial - Painting and Decorating Services	E324400	E	68	8	76	89.2%	10.8%	100.0%
Industrial - Other Residential Building Construction	E301900	E	54	14	68	79.6%	20.4%	100.0%
Industrial - Other Goods and Equipment Rental and Hiring n.e.c.	L663900	L	54	10	64	83.9%	16.1%	100.0%
Industrial - Land Development and Subdivision	E321100	E	44	17	61	71.7%	28.3%	100.0%
Industrial - Plastering and Ceiling Services	E324100	E	43	10	54	80.7%	19.3%	100.0%
Industrial - Other Automotive Repair and Maintenance	S941900	S	44	8	52	85.0%	15.0%	100.0%
Industrial - Other Agriculture and Fishing Support Services	A052900	A	27	24	50	52.8%	47.2%	100.0%
Industrial - Plumbing Services	E323100	E	39	11	50	78.6%	21.4%	100.0%
Industrial - Landscape Construction Services	E329100	E	30	17	47	63.9%	36.1%	100.0%
Industrial - Tiling and Carpeting Services	E324300	E	41	5	46	89.1%	10.9%	100.0%
Industrial - Site Preparation Services	E321200	E	32	14	46	70.2%	29.8%	100.0%
Industrial - Bricklaying Services	E322200	E	32	8	40	80.8%	19.3%	100.0%
Industrial - Passenger Car Rental and Hiring	L661100	L	32	8	39	80.2%	19.8%	100.0%
Industrial - Carpentry Services	E324200	E	32	3	35	91.4%	8.6%	100.0%
Industrial - Other Construction Services n.e.c.	E329900	E	28	6	33	82.9%	17.1%	100.0%
Industrial - Road Freight Transport	I461000	I	26	4	30	86.5%	13.5%	100.0%
Industrial - Other Heavy and Civil Engineering Construction	E310900	E	19	7	26	74.1%	25.9%	100.0%
Industrial - Non-Residential Building Construction	E302000	E	21	4	25	83.5%	16.5%	100.0%
Industrial - Courier Pick-up and Delivery Services	I510200	I	19	3	22	86.2%	13.8%	100.0%
Industrial - Other Motor Vehicle and Transport Equipment Rental and Hiring	L661900	L	16	5	21	77.6%	22.4%	100.0%
Industrial - Wine and Other Alcoholic Beverage Manufacturing	C121400	C	10	10	20	51.5%	48.5%	100.0%
Industrial - Wooden Furniture and Upholstered Seat Manufacturing	C251100	C	17	3	20	84.8%	15.2%	100.0%
Industrial - Other Machinery and Equipment Manufacturing n.e.c.	C249900	C	13	7	20	67.0%	33.0%	100.0%
Industrial - Automotive Body, Paint and Interior Repair	S941200	S	18	1	19	94.8%	5.2%	100.0%
Industrial - Roofing Services	E322300	E	17	-	17	100.0%	0.0%	100.0%
Industrial - Concreting Services	E322100	E	16	1	17	94.2%	5.8%	100.0%
Industrial - Other Electrical and Electronic Goods Wholesaling	F349400	F	15	2	17	86.0%	14.0%	100.0%
Industrial - Air Conditioning and Heating Services	E323300	E	14	3	17	80.8%	19.2%	100.0%
Industrial - Aircraft Manufacturing and Repair Services	C239400	C	15	1	16	93.8%	6.2%	100.0%
Industrial - Road and Bridge Construction	E310100	E	11	4	15	72.2%	27.8%	100.0%
Industrial - Commission Based Wholesaling	F380000	F	14	-	14	100.0%	0.0%	100.0%
Industrial - Other Grocery Wholesaling	F360900	F	12	2	14	88.6%	11.4%	100.0%
Industrial - Other Goods Wholesaling n.e.c.	F373900	F	12	2	14	88.1%	11.9%	100.0%
Industrial - Liquor and Tobacco Product Wholesaling	F360600	F	9	2	11	82.1%	17.9%	100.0%
Industrial - Bakery Product Manufacturing (Non-factory-based)	C117400	C	10	-	10	100.0%	0.0%	100.0%
Industrial - Laundry and Dry-Cleaning Services	S953100	S	10	-	10	100.0%	0.0%	100.0%
Industrial - Other Agricultural Product Wholesaling	F331900	F	7	3	9	72.8%	27.2%	100.0%
Industrial - Urban Bus Transport (Including Tramway)	I462200	I	7	2	9	78.3%	21.7%	100.0%
Industrial - Other Building Installation Services	E323900	E	8	1	9	88.9%	11.1%	100.0%
Industrial - Other Hardware Goods Wholesaling	F333900	F	9	-	9	100.0%	0.0%	100.0%
Industrial - Other Warehousing and Storage Services	I530900	I	7	2	9	82.4%	17.6%	100.0%
Industrial - Electronic (except Domestic Appliance) and Precision Equipment	S942200	S	7	1	8	87.8%	12.2%	100.0%
Industrial - Clothing and Footwear Wholesaling	F371200	F	6	2	8	81.0%	19.0%	100.0%
Industrial - Other Manufacturing n.e.c.	C259900	C	5	2	8	68.0%	32.0%	100.0%
Industrial - Clothing Manufacturing	C135100	C	3	4	7	43.7%	56.3%	100.0%
Industrial - Beer Manufacturing	C121200	C	5	2	7	71.4%	28.6%	100.0%
Industrial - Solid Waste Collection Services	D291100	D	7	-	7	100.0%	0.0%	100.0%
Industrial - Printing	C161100	C	6	-	6	100.0%	0.0%	100.0%
Industrial - Cut and Sewn Textile Product Manufacturing	C133300	C	6	-	6	100.0%	0.0%	100.0%
Industrial - Other Fabricated Metal Product Manufacturing n.e.c.	C229900	C	5	1	6	83.3%	16.7%	100.0%
Industrial - Other Transport Support Services n.e.c	I529900	I	6	-	6	100.0%	0.0%	100.0%
Industrial - Glazing Services	E324500	E	6	-	6	100.0%	0.0%	100.0%
Industrial - Medical and Surgical Equipment Manufacturing	C241200	C	3	2	5	61.5%	38.5%	100.0%
Industrial - Confectionery Manufacturing	C118200	C	4	1	5	80.4%	19.6%	100.0%
Industrial - Iron Smelting and Steel Manufacturing	C211000	C	5	-	5	100.0%	0.0%	100.0%
Industrial - Other Non-Metallic Mineral Product Manufacturing	C209000	C	4	1	5	80.0%	20.0%	100.0%
Industrial - Fire and Security Alarm Installation Services	E323400	E	5	-	5	100.0%	0.0%	100.0%
Industrial - Hire of Construction Machinery with Operator	E329200	E	4	1	5	80.0%	20.0%	100.0%
Industrial - Other Machinery and Equipment Repair and Maintenance	S942900	S	4	1	5	80.0%	20.0%	100.0%
Industrial - Petroleum Product Wholesaling	F332100	F	5	-	5	100.0%	0.0%	100.0%
Industrial - Toy and Sporting Goods Wholesaling	F373400	F	5	-	5	100.0%	0.0%	100.0%
Industrial - Waste Treatment and Disposal Services	D292100	D	3	2	5	68.1%	31.9%	100.0%
Industrial - Wooden Structural Fittings and Components Manufacturing	C149200	C	5	-	5	100.0%	0.0%	100.0%
Industrial - Motor Vehicle Body and Trailer Manufacturing	C231200	C	3	1	4	77.3%	22.7%	100.0%
Industrial - Dairy Produce Wholesaling	F360300	F	2	2	4	47.7%	52.3%	100.0%
Industrial - Other Wood Product Manufacturing n.e.c.	C149900	C	3	1	4	76.7%	23.3%	100.0%
Industrial - Heavy Machinery and Scaffolding Rental and Hiring	L663100	L	2	2	4	48.8%	51.2%	100.0%
Industrial - Motor Vehicle New Part Wholesaling	F350400	F	3	1	4	75.6%	24.4%	100.0%
Industrial - Automotive Electrical Services	S941100	S	4	-	4	100.0%	0.0%	100.0%
Industrial - Cake and Pastry Manufacturing (Factory-based)	C117200	C	3	1	4	75.0%	25.0%	100.0%
Industrial - Other Food Products Manufacturing n.e.c.	C119900	C	4	-	4	100.0%	0.0%	100.0%

Businesses 2017 cont…

Industry	ANZSIC06	Division	Urban Environment Business Count	Rural Environment Business Count	Total QLD Business Count (2017)	Urban Share of QLD (%)	Rural Share of QLD (%)	Total QLD
Industrial - Pharmaceutical and Toiletry Goods Wholesaling	F372000	F	4	-	4	100.0%	0.0%	100.0%
Industrial - Interurban and Rural Bus Transport	I462100	I	2	2	4	50.0%	50.0%	100.0%
Industrial - Other Water Transport Support Services	I521900	I	3	1	4	75.0%	25.0%	100.0%
Industrial - Domestic Appliance Repair and Maintenance	S942100	S	4	-	4	100.0%	0.0%	100.0%
Industrial - Metal Roof and Guttering Manufacturing (except Aluminium)	C222400	C	4	-	4	100.0%	0.0%	100.0%
Industrial - Agricultural and Construction Machinery Wholesaling	F341100	F	4	-	4	100.0%	0.0%	100.0%
Industrial - Concrete Product Manufacturing	C203400	C	4	-	4	100.0%	0.0%	100.0%
Industrial - Jewellery and Silverware Manufacturing	C259100	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Cosmetic and Toiletry Preparation Manufacturing	C185200	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Ready-Mixed Concrete Manufacturing	C203300	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Fish and Seafood Wholesaling	F360400	F	3	-	3	100.0%	0.0%	100.0%
Industrial - Furniture and Floor Coverings Wholesaling	F373100	F	2	1	3	66.7%	33.3%	100.0%
Industrial - Timber Wholesaling	F333100	F	3	-	3	100.0%	0.0%	100.0%
Industrial - Computer and Computer Peripherals Wholesaling	F349200	F	3	-	3	100.0%	0.0%	100.0%
Industrial - Fruit and Vegetable Processing	C114000	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Structural Steel Fabricating	C222100	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Other Specialised Industrial Machinery and Equipment Wholesal	F341900	F	1	1	2	58.3%	41.7%	100.0%
Industrial - Other Machinery and Equipment Wholesaling n	F349900	F	2	-	2	100.0%	0.0%	100.0%
Industrial - Boatbuilding and Repair Services	C239200	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Industrial and Agricultural Chemical Product Wholesaling	F332300	F	2	-	2	100.0%	0.0%	100.0%
Industrial - Human Pharmaceutical and Medicinal Product Manufacturing	C184100	C	1	1	2	50.0%	50.0%	100.0%
Industrial - Ice Cream Manufacturing	C113200	C	1	1	2	50.0%	50.0%	100.0%
Industrial - Other Furniture Manufacturing	C251900	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Soft Drink, Cordial and Syrup Manufacturing	C121100	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Spirit Manufacturing	C121300	C	1	1	2	50.0%	50.0%	100.0%
Industrial - Textile Finishing and Other Textile Product Manufacturing	C133400	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Waste Remediation and Materials Recovery Services	D292200	D	2	-	2	100.0%	0.0%	100.0%
Industrial - Structural Steel Erection Services	E322400	E	2	-	2	100.0%	0.0%	100.0%
Industrial - Book and Magazine Wholesaling	F373500	F	2	-	2	100.0%	0.0%	100.0%
Industrial - Car Wholesaling	F350100	F	1	1	2	50.0%	50.0%	100.0%
Industrial - Kitchen and Dining Ware Wholesaling	F373300	F	2	-	2	100.0%	0.0%	100.0%
Industrial - Textile Product Wholesaling	F371100	F	2	-	2	100.0%	0.0%	100.0%
Industrial - Metal and Mineral Wholesaling	F332200	F	2	-	2	100.0%	0.0%	100.0%
Industrial - Photographic, Optical and Ophthalmic Equipment Manufacturing	C241100	C	-	2	2	0.0%	100.0%	100.0%
Industrial - Motor Vehicle Dismantling and Used Part Wholesaling	F350500	F	1	-	1	100.0%	0.0%	100.0%
Industrial - Prepared Animal and Bird Feed Manufacturing	C119200	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Fruit and Vegetable Wholesaling	F360500	F	1	-	1	100.0%	0.0%	100.0%
Industrial - Agricultural Machinery and Equipment Manufacturing	C246100	C	-	1	1	0.0%	100.0%	100.0%
Industrial - Aluminium Rolling, Drawing, Extruding	C214200	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Architectural Aluminium Product Manufacturing	C222300	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Basic Inorganic Chemical Manufacturing	C181300	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Bread Manufacturing (Factory-based)	C117100	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Cereal, Pasta and Baking Mix Manufacturing	C116200	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Cleaning Compound Manufacturing	C185100	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Cured Meat and Smallgoods Manufacturing	C111300	C	-	1	1	0.0%	100.0%	100.0%
Industrial - Electric Cable and Wire Manufacturing	C243100	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Milk and Cream Processing	C113100	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Mining and Construction Machinery Manufacturing	C246200	C	-	1	1	0.0%	100.0%	100.0%
Industrial - Oil and Fat Manufacturing	C115000	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Other Ceramic Product Manufacturing	C202900	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Other Electrical Equipment Manufacturing	C243900	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Other Sheet Metal Product Manufacturing	C224000	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Other Specialised Machinery and Equipment Manufacturing	C246900	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Other Structural Metal Product Manufacturing	C222900	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Prefabricated Wooden Building Manufacturing	C149100	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Printing Support Services	C161200	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Steel Pipe and Tube Manufacturing	C212200	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Other Waste Collection Services	D291900	D	1	-	1	100.0%	0.0%	100.0%
Industrial - Jewellery and Watch Wholesaling	F373200	F	1	-	1	100.0%	0.0%	100.0%
Industrial - Meat, Poultry and Smallgoods Wholesaling	F360200	F	-	1	1	0.0%	100.0%	100.0%
Industrial - Freight Forwarding Services	I529200	I	1	-	1	100.0%	0.0%	100.0%
Rest of Manufacturing	*multiple*	C	-	-	-	*na*	*na*	*na*
Rest of Wholesale Trade	*multiple*	F	-	-	-	*na*	*na*	*na*
Total QLD Industrial Economy			1,587	341	1,928	82.3%	17.7%	100.0%

Source: M.E, Statistics NZ Business Frame 2017, QLD amalgamated district plan zones. Urban Environment includes zones within urban limits plus Luggate, Luggate Rural Industrial Subzone, LDR adjacent to Lake Hayes (as per QLDC BDCA 2017). The Rural Environment includes special zone and townships that are urban in nature and includes Wanaka Airport Zone.

Employment 2017

Industry	ANZSIC06	Division	Urban Environment Employment Count	Rural Environment Employment Count	Total QLD Business Employment (2017)	Urban Share of QLD (%)	Rural Share of QLD (%)	Total QLD
Industrial - House Construction	E301100	E	857	173	1,030	83.2%	16.8%	100.0%
Industrial - Electrical Services	E323200	E	257	22	279	92.0%	8.0%	100.0%
Industrial - Painting and Decorating Services	E324400	E	165	35	200	82.6%	17.4%	100.0%
Industrial - Other Residential Building Construction	E301900	E	67	16	83	80.8%	19.2%	100.0%
Industrial - Other Goods and Equipment Rental and Hiring n.e.c.	L663900	L	135	12	147	91.6%	8.4%	100.0%
Industrial - Land Development and Subdivision	E321100	E	24	7	31	77.0%	23.0%	100.0%
Industrial - Plastering and Ceiling Services	E324100	E	139	24	163	85.2%	14.8%	100.0%
Industrial - Other Automotive Repair and Maintenance	S941900	S	181	10	191	94.9%	5.1%	100.0%
Industrial - Other Agriculture and Fishing Support Services	A052900	A	66	64	130	51.0%	49.0%	100.0%
Industrial - Plumbing Services	E323100	E	160	21	181	88.4%	11.6%	100.0%
Industrial - Landscape Construction Services	E329100	E	91	46	136	66.4%	33.6%	100.0%
Industrial - Tiling and Carpeting Services	E324300	E	90	8	99	91.6%	8.4%	100.0%
Industrial - Site Preparation Services	E321200	E	153	142	295	52.0%	48.0%	100.0%
Industrial - Bricklaying Services	E322200	E	77	10	88	88.1%	11.9%	100.0%
Industrial - Passenger Car Rental and Hiring	L661100	L	194	7	200	96.6%	3.4%	100.0%
Industrial - Carpentry Services	E324200	E	51	6	58	89.1%	10.9%	100.0%
Industrial - Other Construction Services n.e.c.	E329900	E	125	9	134	93.1%	6.9%	100.0%
Industrial - Road Freight Transport	I461000	I	77	6	83	93.3%	6.7%	100.0%
Industrial - Other Heavy and Civil Engineering Construction	E310900	E	120	15	136	88.6%	11.4%	100.0%
Industrial - Non-Residential Building Construction	E302000	E	163	11	174	93.7%	6.3%	100.0%
Industrial - Courier Pick-up and Delivery Services	I510200	I	33	7	40	81.6%	18.4%	100.0%
Industrial - Other Motor Vehicle and Transport Equipment Rental and Hiring	L661900	L	18	3	21	85.6%	14.4%	100.0%
Industrial - Wine and Other Alcoholic Beverage Manufacturing	C121400	C	13	46	58	21.6%	78.4%	100.0%
Industrial - Wooden Furniture and Upholstered Seat Manufacturing	C251100	C	36	4	41	89.9%	10.1%	100.0%
Industrial - Other Machinery and Equipment Manufacturing n.e.c.	C249900	C	51	9	60	85.4%	14.6%	100.0%
Industrial - Automotive Body, Paint and Interior Repair	S941200	S	104	4	108	96.1%	3.9%	100.0%
Industrial - Roofing Services	E322300	E	64	-	64	100.0%	0.0%	100.0%
Industrial - Concreting Services	E322100	E	50	1	51	97.4%	2.6%	100.0%
Industrial - Other Electrical and Electronic Goods Wholesaling	F349400	F	72	3	74	96.6%	3.4%	100.0%
Industrial - Air Conditioning and Heating Services	E323300	E	60	15	75	80.5%	19.5%	100.0%
Industrial - Aircraft Manufacturing and Repair Services	C239400	C	46	27	73	62.8%	37.2%	100.0%
Industrial - Road and Bridge Construction	E310100	E	90	29	119	75.5%	24.5%	100.0%
Industrial - Commission Based Wholesaling	F380000	F	15	-	15	100.0%	0.0%	100.0%
Industrial - Other Grocery Wholesaling	F360900	F	167	1	169	99.2%	0.8%	100.0%
Industrial - Other Goods Wholesaling n.e.c.	F373900	F	19	3	22	86.0%	14.0%	100.0%
Industrial - Liquor and Tobacco Product Wholesaling	F360600	F	20	2	22	91.6%	8.4%	100.0%
Industrial - Bakery Product Manufacturing (Non-factory-based)	C117400	C	119	-	119	100.0%	0.0%	100.0%
Industrial - Laundry and Dry-Cleaning Services	S953100	S	92	-	92	100.0%	0.0%	100.0%
Industrial - Other Agricultural Product Wholesaling	F331900	F	7	14	21	34.3%	65.7%	100.0%
Industrial - Urban Bus Transport (Including Tramway)	I462200	I	123	3	126	97.5%	2.5%	100.0%
Industrial - Other Building Installation Services	E323900	E	11	1	12	89.3%	10.7%	100.0%
Industrial - Other Hardware Goods Wholesaling	F333900	F	35	-	35	100.0%	0.0%	100.0%
Industrial - Other Warehousing and Storage Services	I530900	I	6	1	7	85.5%	14.5%	100.0%
Industrial - Electronic (except Domestic Appliance) and Precision Equipment	S942200	S	11	1	13	89.7%	10.3%	100.0%
Industrial - Clothing and Footwear Wholesaling	F371200	F	33	9	42	79.3%	20.7%	100.0%
Industrial - Other Manufacturing n.e.c.	C259900	C	18	2	20	88.2%	11.8%	100.0%
Industrial - Clothing Manufacturing	C135100	C	9	8	17	53.5%	46.5%	100.0%
Industrial - Beer Manufacturing	C121200	C	5	3	8	61.7%	38.3%	100.0%
Industrial - Solid Waste Collection Services	D291100	D	63	-	63	100.0%	0.0%	100.0%
Industrial - Printing	C161100	C	47	-	47	100.0%	0.0%	100.0%
Industrial - Cut and Sewn Textile Product Manufacturing	C133300	C	14	-	14	100.0%	0.0%	100.0%
Industrial - Other Fabricated Metal Product Manufacturing n.e.c.	C229900	C	12	1	14	91.1%	8.9%	100.0%
Industrial - Other Transport Support Services n.e.c	I529900	I	9	-	9	100.0%	0.0%	100.0%
Industrial - Glazing Services	E324500	E	23	-	23	100.0%	0.0%	100.0%
Industrial - Medical and Surgical Equipment Manufacturing	C241200	C	5	3	8	66.7%	33.3%	100.0%
Industrial - Confectionery Manufacturing	C118200	C	71	1	73	98.1%	1.9%	100.0%
Industrial - Iron Smelting and Steel Manufacturing	C211000	C	5	-	5	100.0%	0.0%	100.0%
Industrial - Other Non-Metallic Mineral Product Manufacturing	C209000	C	12	1	13	91.8%	8.2%	100.0%
Industrial - Fire and Security Alarm Installation Services	E323400	E	13	-	13	100.0%	0.0%	100.0%
Industrial - Hire of Construction Machinery with Operator	E329200	E	16	1	17	92.9%	7.1%	100.0%
Industrial - Other Machinery and Equipment Repair and Maintenance	S942900	S	12	2	14	88.9%	11.1%	100.0%
Industrial - Petroleum Product Wholesaling	F332100	F	18	-	18	100.0%	0.0%	100.0%
Industrial - Toy and Sporting Goods Wholesaling	F373400	F	4	-	4	100.0%	0.0%	100.0%
Industrial - Waste Treatment and Disposal Services	D292100	D	26	2	27	94.2%	5.8%	100.0%
Industrial - Wooden Structural Fittings and Components Manufacturing	C149200	C	29	-	29	100.0%	0.0%	100.0%
Industrial - Motor Vehicle Body and Trailer Manufacturing	C231200	C	3	1	4	73.8%	26.2%	100.0%
Industrial - Dairy Produce Wholesaling	F360300	F	12	2	15	84.4%	15.6%	100.0%
Industrial - Other Wood Product Manufacturing n.e.c.	C149900	C	11	2	13	86.6%	13.4%	100.0%
Industrial - Heavy Machinery and Scaffolding Rental and Hiring	L663100	L	2	1	3	57.7%	42.3%	100.0%
Industrial - Motor Vehicle New Part Wholesaling	F350400	F	10	1	11	90.3%	9.7%	100.0%
Industrial - Automotive Electrical Services	S941100	S	11	-	11	100.0%	0.0%	100.0%
Industrial - Cake and Pastry Manufacturing (Factory-based)	C117200	C	5	1	6	82.5%	17.5%	100.0%
Industrial - Other Food Products Manufacturing n.e.c.	C119900	C	4	-	4	100.0%	0.0%	100.0%

Employment 2017 cont…

Industry	ANZSIC06	Division	Urban Environment Employment Count	Rural Environment Employment Count	Total QLD Business Employment (2017)	Urban Share of QLD (%)	Rural Share of QLD (%)	Total QLD
Industrial - Pharmaceutical and Toiletry Goods Wholesaling	F372000	F	11	-	11	100.0%	0.0%	100.0%
Industrial - Interurban and Rural Bus Transport	I462100	I	21	20	41	50.5%	49.5%	100.0%
Industrial - Other Water Transport Support Services	I521900	I	3	1	4	72.1%	27.9%	100.0%
Industrial - Domestic Appliance Repair and Maintenance	S942100	S	7	-	7	100.0%	0.0%	100.0%
Industrial - Metal Roof and Guttering Manufacturing (except Aluminium)	C222400	C	47	-	47	100.0%	0.0%	100.0%
Industrial - Agricultural and Construction Machinery Wholesaling	F341100	F	8	-	8	100.0%	0.0%	100.0%
Industrial - Concrete Product Manufacturing	C203400	C	8	-	8	100.0%	0.0%	100.0%
Industrial - Jewellery and Silverware Manufacturing	C259100	C	6	-	6	100.0%	0.0%	100.0%
Industrial - Cosmetic and Toiletry Preparation Manufacturing	C185200	C	4	-	4	100.0%	0.0%	100.0%
Industrial - Ready-Mixed Concrete Manufacturing	C203300	C	27	-	27	100.0%	0.0%	100.0%
Industrial - Fish and Seafood Wholesaling	F360400	F	13	-	13	100.0%	0.0%	100.0%
Industrial - Furniture and Floor Coverings Wholesaling	F373100	F	3	1	4	77.3%	22.7%	100.0%
Industrial - Timber Wholesaling	F333100	F	4	-	4	100.0%	0.0%	100.0%
Industrial - Computer and Computer Peripherals Wholesaling	F349200	F	18	-	18	100.0%	0.0%	100.0%
Industrial - Fruit and Vegetable Processing	C114000	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Structural Steel Fabricating	C222100	C	19	-	19	100.0%	0.0%	100.0%
Industrial - Other Specialised Industrial Machinery and Equipment Wholesal	F341900	F	6	2	8	76.5%	23.5%	100.0%
Industrial - Other Machinery and Equipment Wholesaling n	F349900	F	7	-	7	100.0%	0.0%	100.0%
Industrial - Boatbuilding and Repair Services	C239200	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Industrial and Agricultural Chemical Product Wholesaling	F332300	F	9	-	9	100.0%	0.0%	100.0%
Industrial - Human Pharmaceutical and Medicinal Product Manufacturing	C184100	C	1	15	16	5.6%	94.4%	100.0%
Industrial - Ice Cream Manufacturing	C113200	C	1	13	14	5.8%	94.2%	100.0%
Industrial - Other Furniture Manufacturing	C251900	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Soft Drink, Cordial and Syrup Manufacturing	C121100	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Spirit Manufacturing	C121300	C	11	1	12	92.5%	7.5%	100.0%
Industrial - Textile Finishing and Other Textile Product Manufacturing	C133400	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Waste Remediation and Materials Recovery Services	D292200	D	6	-	6	100.0%	0.0%	100.0%
Industrial - Structural Steel Erection Services	E322400	E	6	-	6	100.0%	0.0%	100.0%
Industrial - Book and Magazine Wholesaling	F373500	F	2	-	2	100.0%	0.0%	100.0%
Industrial - Car Wholesaling	F350100	F	1	1	1	57.1%	42.9%	100.0%
Industrial - Kitchen and Dining Ware Wholesaling	F373300	F	12	-	12	100.0%	0.0%	100.0%
Industrial - Textile Product Wholesaling	F371100	F	3	-	3	100.0%	0.0%	100.0%
Industrial - Metal and Mineral Wholesaling	F332200	F	18	-	18	100.0%	0.0%	100.0%
Industrial - Photographic, Optical and Ophthalmic Equipment Manufacturing	C241100	C	-	27	27	0.0%	100.0%	100.0%
Industrial - Motor Vehicle Dismantling and Used Part Wholesaling	F350500	F	3	-	3	100.0%	0.0%	100.0%
Industrial - Prepared Animal and Bird Feed Manufacturing	C119200	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Fruit and Vegetable Wholesaling	F360500	F	1	-	1	100.0%	0.0%	100.0%
Industrial - Agricultural Machinery and Equipment Manufacturing	C246100	C	-	1	1	0.0%	100.0%	100.0%
Industrial - Aluminium Rolling, Drawing, Extruding	C214200	C	7	-	7	100.0%	0.0%	100.0%
Industrial - Architectural Aluminium Product Manufacturing	C222300	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Basic Inorganic Chemical Manufacturing	C181300	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Bread Manufacturing (Factory-based)	C117100	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Cereal, Pasta and Baking Mix Manufacturing	C116200	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Cleaning Compound Manufacturing	C185100	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Cured Meat and Smallgoods Manufacturing	C111300	C	-	2	2	0.0%	100.0%	100.0%
Industrial - Electric Cable and Wire Manufacturing	C243100	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Milk and Cream Processing	C113100	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Mining and Construction Machinery Manufacturing	C246200	C	-	1	1	0.0%	100.0%	100.0%
Industrial - Oil and Fat Manufacturing	C115000	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Other Ceramic Product Manufacturing	C202900	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Other Electrical Equipment Manufacturing	C243900	C	1	-	1	100.0%	0.0%	100.0%
Industrial - Other Sheet Metal Product Manufacturing	C224000	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Other Specialised Machinery and Equipment Manufacturing	C246900	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Other Structural Metal Product Manufacturing	C222900	C	5	-	5	100.0%	0.0%	100.0%
Industrial - Prefabricated Wooden Building Manufacturing	C149100	C	3	-	3	100.0%	0.0%	100.0%
Industrial - Printing Support Services	C161200	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Steel Pipe and Tube Manufacturing	C212200	C	2	-	2	100.0%	0.0%	100.0%
Industrial - Other Waste Collection Services	D291900	D	6	-	6	100.0%	0.0%	100.0%
Industrial - Jewellery and Watch Wholesaling	F373200	F	1	-	1	100.0%	0.0%	100.0%
Industrial - Meat, Poultry and Smallgoods Wholesaling	F360200	F	-	3	3	0.0%	100.0%	100.0%
Industrial - Freight Forwarding Services	I529200	I	1	-	1	100.0%	0.0%	100.0%
Rest of Manufacturing	*multiple*	C	-	-	-	*na*	*na*	*na*
Rest of Wholesale Trade	*multiple*	F	-	-	-	*na*	*na*	*na*
Total QLD Industrial Economy			5,300	948	6,249	84.8%	15.2%	100.0%

Source: M.E, Statistics NZ Business Frame 2017, QLD amalgamated district plan zones. Urban Environment includes zones within urban limits plus Luggate, Luggate Rural Industrial Subzone, LDR adjacent to Lake Hayes (as per QLDC BDCA 2017). The Rural Environment includes special zone and townships that are urban in nature and includes Wanaka Airport Zone.

Appendix 10 – Meshblock Zone Maps

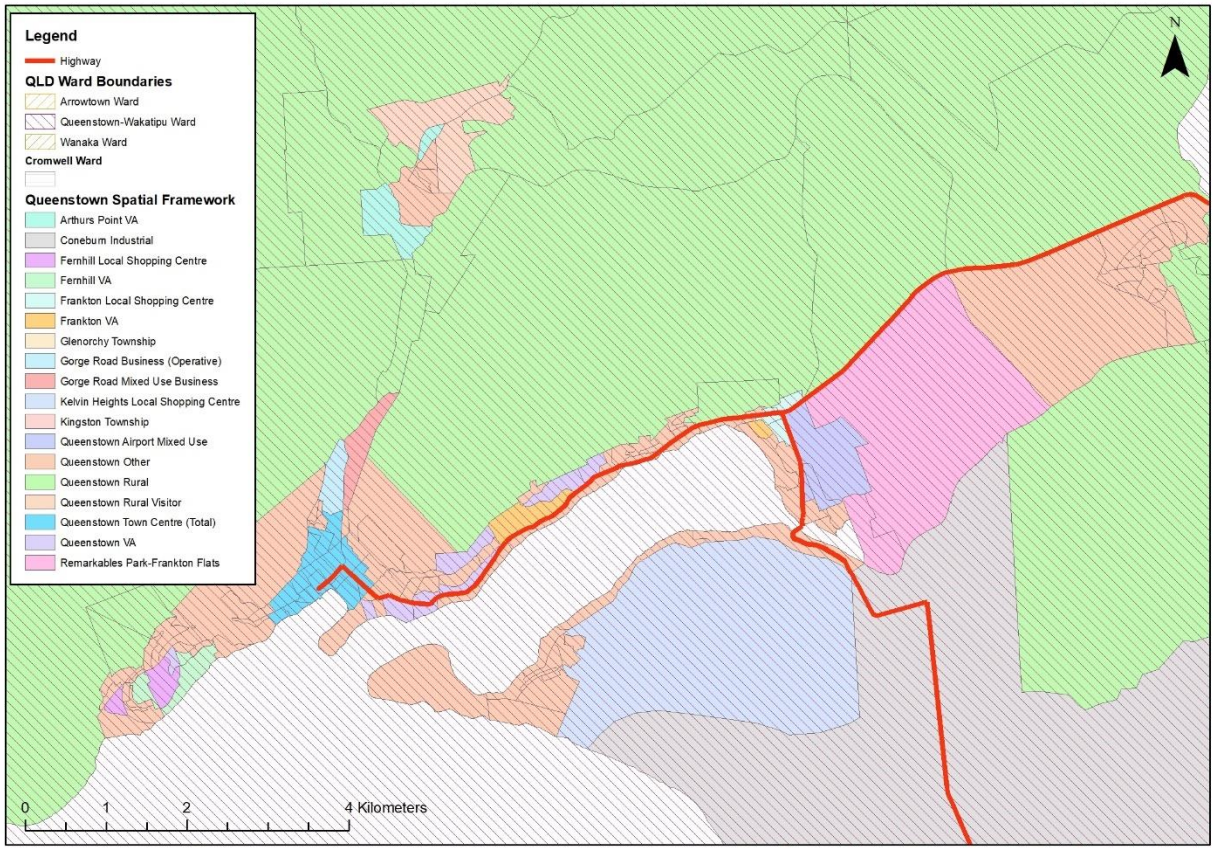
List of zones able to be included in analysis:

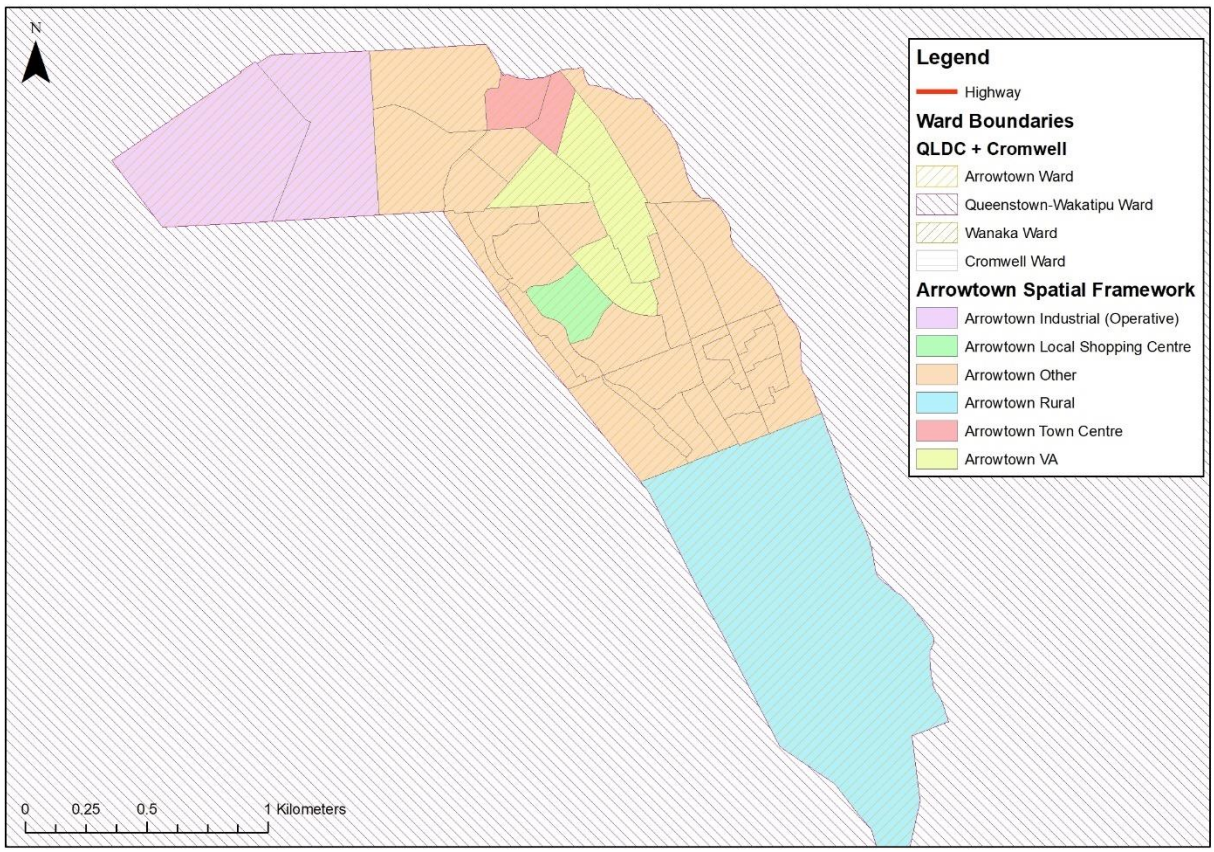
District	Urban / Rural	Ward	Zone - Group	Zone - Detail *
QLD	Urban	Queenstown	Airport	Queenstown Airport Mixed Use
QLD	Urban	Queenstown	Business	Gorge Road Mixed Use Business
QLD	Urban	Queenstown	Business	Gorge Road Business (Operative)
QLD	Urban	Wanaka	Business	Anderson Road Business Mixed Use
QLD	Urban	Arrowtown	Industrial	Arrowtown Industrial (Operative)
QLD	Urban	Wanaka	Industrial	Luggate Rural Industrial
QLD	Urban	Wanaka	Industrial	Wanaka Industrial **
QLD	Urban	Arrowtown	Other (incl VA)	Arrowtown Other
QLD	Urban	Arrowtown	Other (incl VA)	Arrowtown VA
QLD	Urban	Queenstown	Other (incl VA)	Arthurs Point VA
QLD	Urban	Queenstown	Other (incl VA)	Fernhill VA
QLD	Urban	Queenstown	Other (incl VA)	Frankton VA
QLD	Urban	Queenstown	Other (incl VA)	Queenstown Other
QLD	Urban	Queenstown	Other (incl VA)	Queenstown VA
QLD	Urban	Wanaka	Other (incl VA)	Wanaka Northlake
QLD	Urban	Wanaka	Other (incl VA)	Wanaka Other
QLD	Urban	Wanaka	Other (incl VA)	Wanaka VA
QLD	Urban	Arrowtown	Other Commercial	Arrowtown Local Shopping Centre
QLD	Urban	Arrowtown	Other Commercial	Arrowtown Town Centre
QLD	Urban	Queenstown	Other Commercial	Fernhill Local Shopping Centre
QLD	Urban	Queenstown	Other Commercial	Frankton Local Shopping Centre
QLD	Urban	Queenstown	Other Commercial	Kelvin Heights Local Shopping Centre
QLD	Urban	Queenstown	Other Commercial	Queenstown Town Centre (Total)
QLD	Urban	Wanaka	Other Commercial	Albert Town Local Shopping Centre
QLD	Urban	Wanaka	Other Commercial	Hawea Local Shopping Centre
QLD	Urban	Wanaka	Other Commercial	Wanaka Three Parks
QLD	Urban	Wanaka	Other Commercial	Wanaka Town Centre
QLD	Urban	Queenstown	Other Commercial & Industrial	Remarkables Park-Frankton Flats
QLD	Urban	Wanaka	Township	Albert Town Township
QLD	Urban	Wanaka	Township	Hawea Township
QLD	Urban	Wanaka	Township	Luggate Township
QLD	Rural	Wanaka	Airport	Wanaka Airport Mixed Use
QLD	Rural	Arrowtown	Other (incl VA)	Arrowtown Rural
QLD	Rural	Queenstown	Other (incl VA)	Queenstown Rural
QLD	Rural	Queenstown	Other (incl VA)	Queenstown Rural Visitor
QLD	Rural	Wanaka	Other (incl VA)	Cardrona Rural Visitor
QLD	Rural	Wanaka	Other (incl VA)	Wanaka Rural
QLD	Rural	Queenstown	Township	Glenorchy Township
QLD	Rural	Queenstown	Township	Kingston Township
QLD	Rural	Wanaka	Township	Makarora Township

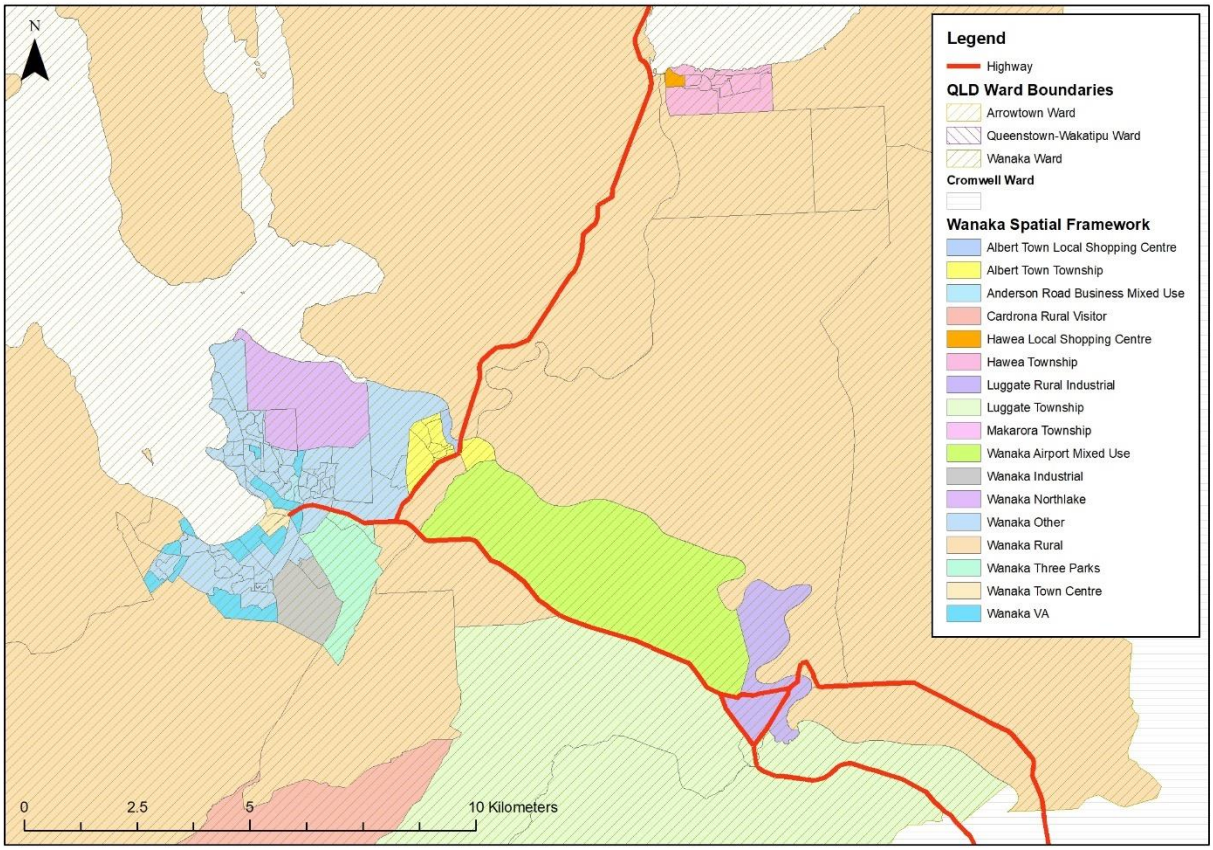
Source: M.E QLD Spatial Framework - 2013 Meshblock Resolution, QLDD District Plan Zones

** Level of detail limited to ability to differential zones with meshblock boundaries.*

*** Includes both Industrial and Industrial B within meshblocks.*


Legend
Highway
QLD Ward Boundaries
Arrowtown Ward
Queenstown-Wakatipu Ward
Wanaka Ward
Cromwell Ward
Queenstown Spatial Framework
Arthurs Point VA
Conebum Industrial
Fernhill Local Shopping Centre
Fernhill VA
Frankton Local Shopping Centre
Frankton VA
Glenorchy Township
Gorge Road Business (Operative)
Gorge Road Mixed Use Business
Kelvin Heights Local Shopping Centre
Kingston Township
Queenstown Airport Mixed Use
Queenstown Other
Queenstown Rural
Queenstown Rural Visitor
Queenstown Town Centre (Total)
Queenstown VA
Remarkables Park-Frankton Flats
N
0
1
2
4 Kilometers


N
Legend
Highway
Ward Boundaries
QLDC + Cromwell
Arrowtown Ward
Queenstown-Wakatipu Ward
Wanaka Ward
Cromwell Ward
Arrowtown Spatial Framework
Arrowtown Industrial (Operative)
Arrowtown Local Shopping Centre
Arrowtown Other
Arrowtown Rural
Arrowtown Town Centre
Arrowtown VA
0
0.25
0.5
1 Kilometers


N
Legend
Highway
QLD Ward Boundaries
Arrowtown Ward
Queenstown-Wakatipu Ward
Wanaka Ward
Cromwell Ward
Wanaka Spatial Framework
Albert Town Local Shopping Centre
Albert Town Township
Anderson Road Business Mixed Use
Cardrona Rural Visitor
Hawea Local Shopping Centre
Hawea Township
Luggate Rural Industrial
Luggate Township
Makarora Township
Wanaka Airport Mixed Use
Wanaka Industrial
Wanaka Northlake
Wanaka Other
Wanaka Rural
Wanaka Three Parks
Wanaka Town Centre
Wanaka VA
0
2.5
5
10 Kilometers

Appendix 11 – Zone Propensity 2017

QLD Industrial Economy	ANZSIC	Division	Urban Industrial Zone Propensity 2017	Count of Urban Businesses	Share of Urban Businesses
Industrial - Bakery Product Manufacturing (Non-factory-based)	C117400	C	Low-Moderate	10	1%
Industrial - Beer Manufacturing	C121200	C	Low-Moderate	5	0%
Industrial - Confectionery Manufacturing	C118200	C	Low-Moderate	4	0%
Industrial - Iron Smelting and Steel Manufacturing	C211000	C	Low-Moderate	5	0%
Industrial - Medical and Surgical Equipment Manufacturing	C241200	C	Low-Moderate	3	0%
Industrial - Other Machinery and Equipment Manufacturing n.e.c.	C249900	C	Low-Moderate	13	1%
Industrial - Other Manufacturing n.e.c.	C259900	C	Low-Moderate	5	0%
Industrial - Printing	C161100	C	Low-Moderate	6	0%
Industrial - Ready-Mixed Concrete Manufacturing	C203300	C	Low-Moderate	3	0%
Industrial - Wine and Other Alcoholic Beverage Manufacturing	C121400	C	Low-Moderate	10	1%
Industrial - Wooden Furniture and Upholstered Seat Manufacturing	C251100	C	Low-Moderate	17	1%
Industrial - Waste Treatment and Disposal Services	D292100	D	Low-Moderate	3	0%
Industrial - Non-Residential Building Construction	E302000	E	Low-Moderate	21	1%
Industrial - Road and Bridge Construction	E310100	E	Low-Moderate	11	1%
Industrial - Other Heavy and Civil Engineering Construction	E310900	E	Low-Moderate	19	1%
Industrial - Fire and Security Alarm Installation Services	E323400	E	Low-Moderate	5	0%
Industrial - Glazing Services	E324500	E	Low-Moderate	6	0%
Industrial - Hire of Construction Machinery with Operator	E329200	E	Low-Moderate	4	0%
Industrial - Agricultural and Construction Machinery Wholesaling	F341100	F	Low-Moderate	4	0%
Industrial - Computer and Computer Peripherals Wholesaling	F349200	F	Low-Moderate	3	0%
Industrial - Other Electrical and Electronic Goods Wholesaling	F349400	F	Low-Moderate	15	1%
Industrial - Other Grocery Wholesaling	F360900	F	Low-Moderate	12	1%
Industrial - Other Hardware Goods Wholesaling	F333900	F	Low-Moderate	9	1%
Industrial - Courier Pick-up and Delivery Services	I510200	I	Low-Moderate	19	1%
Industrial - Other Warehousing and Storage Services	I530900	I	Low-Moderate	7	0%
Industrial - Other Water Transport Support Services	I521900	I	Low-Moderate	3	0%
Industrial - Automotive Body, Paint and Interior Repair	S941200	S	Low-Moderate	18	1%
Industrial - Domestic Appliance Repair and Maintenance	S942100	S	Low-Moderate	4	0%
Industrial - Laundry and Dry-Cleaning Services	S953100	S	Low-Moderate	10	1%
Industrial - Other Automotive Repair and Maintenance	S941900	S	Low-Moderate	44	3%
Industrial - Other Machinery and Equipment Repair and Maintenance	S942900	S	Low-Moderate	4	0%
Sub-Total				302	19%

Source: M.E, Statistics NZ Business Directory.

QLD Industrial Economy	ANZSIC	Division	Urban Industrial Zone Propensity 2017	Count of Urban Businesses	Share of Urban Businesses
Industrial - Other Agriculture and Fishing Support Services	A052900	A	Low	27	2%
Industrial - Cut and Sewn Textile Product Manufacturing	C133300	C	Low	6	0%
Industrial - House Construction	E301100	E	Low	330	21%
Industrial - Other Residential Building Construction	E301900	E	Low	54	3%
Industrial - Land Development and Subdivision	E321100	E	Low	44	3%
Industrial - Site Preparation Services	E321200	E	Low	32	2%
Industrial - Concreting Services	E322100	E	Low	16	1%
Industrial - Bricklaying Services	E322200	E	Low	32	2%
Industrial - Roofing Services	E322300	E	Low	17	1%
Industrial - Plumbing Services	E323100	E	Low	39	2%
Industrial - Electrical Services	E323200	E	Low	70	4%
Industrial - Air Conditioning and Heating Services	E323300	E	Low	14	1%
Industrial - Plastering and Ceiling Services	E324100	E	Low	43	3%
Industrial - Carpentry Services	E324200	E	Low	32	2%
Industrial - Tiling and Carpeting Services	E324300	E	Low	41	3%
Industrial - Painting and Decorating Services	E324400	E	Low	68	4%
Industrial - Landscape Construction Services	E329100	E	Low	30	2%
Industrial - Other Construction Services n.e.c.	E329900	E	Low	28	2%
Industrial - Commission Based Wholesaling	F380000	F	Low	14	1%
Industrial - Other Goods Wholesaling n.e.c.	F373900	F	Low	12	1%
Industrial - Road Freight Transport	I461000	I	Low	26	2%
Industrial - Urban Bus Transport (Including Tramway)	I462200	I	Low	7	0%
Industrial - Other Goods and Equipment Rental and Hiring n.e.c.	L663900	L	Low	54	3%
Industrial - Other Motor Vehicle and Transport Equipment Rental and Hiring	L661900	L	Low	16	1%
Industrial - Passenger Car Rental and Hiring	L661100	L	Low	32	2%
Industrial - Electronic (except Domestic Appliance) and Precision Equipment Repair and Maintenance	S942200	S	Low	7	0%
Sub-Total				1,090	69%

Source: M.E, Statistics NZ Business Directory.

QLD Industrial Economy	ANZSIC	Division	Urban Industrial Zone Propensity 2017	Count of Urban Businesses	Share of Urban Businesses
Industrial - Agricultural Machinery and Equipment Manufacturing	C246100	C	None	-	0%
Industrial - Aircraft Manufacturing and Repair Services	C239400	C	None	15	1%
Industrial - Architectural Aluminium Product Manufacturing	C222300	C	None	1	0%
Industrial - Basic Inorganic Chemical Manufacturing	C181300	C	None	1	0%
Industrial - Bread Manufacturing (Factory-based)	C117100	C	None	1	0%
Industrial - Cake and Pastry Manufacturing (Factory-based)	C117200	C	None	3	0%
Industrial - Cereal, Pasta and Baking Mix Manufacturing	C116200	C	None	1	0%
Industrial - Cleaning Compound Manufacturing	C185100	C	None	1	0%
Industrial - Cosmetic and Toiletry Preparation Manufacturing	C185200	C	None	3	0%
Industrial - Cured Meat and Smallgoods Manufacturing	C111300	C	None	-	0%
Industrial - Electric Cable and Wire Manufacturing	C243100	C	None	1	0%
Industrial - Fruit and Vegetable Processing	C114000	C	None	3	0%
Industrial - Human Pharmaceutical and Medicinal Product Manufacturing	C184100	C	None	1	0%
Industrial - Ice Cream Manufacturing	C113200	C	None	1	0%
Industrial - Jewellery and Silverware Manufacturing	C259100	C	None	3	0%
Industrial - Milk and Cream Processing	C113100	C	None	1	0%
Industrial - Mining and Construction Machinery Manufacturing	C246200	C	None	-	0%
Industrial - Motor Vehicle Body and Trailer Manufacturing	C231200	C	None	3	0%
Industrial - Oil and Fat Manufacturing	C115000	C	None	1	0%
Industrial - Other Ceramic Product Manufacturing	C202900	C	None	1	0%
Industrial - Other Electrical Equipment Manufacturing	C243900	C	None	1	0%
Industrial - Other Food Products Manufacturing n.e.c.	C119900	C	None	4	0%
Industrial - Other Non-Metallic Mineral Product Manufacturing	C209000	C	None	4	0%
Industrial - Other Structural Metal Product Manufacturing	C222900	C	None	1	0%
Industrial - Photographic, Optical and Ophthalmic Equipment Manufacturing	C241100	C	None	-	0%
Industrial - Prefabricated Wooden Building Manufacturing	C149100	C	None	1	0%
Industrial - Prepared Animal and Bird Feed Manufacturing	C119200	C	None	1	0%
Industrial - Printing Support Services	C161200	C	None	1	0%
Industrial - Soft Drink, Cordial and Syrup Manufacturing	C121100	C	None	2	0%
Industrial - Spirit Manufacturing	C121300	C	None	1	0%
Industrial - Steel Pipe and Tube Manufacturing	C212200	C	None	1	0%
Industrial - Other Waste Collection Services	D291900	D	None	1	0%
Industrial - Solid Waste Collection Services	D291100	D	None	7	0%
Industrial - Waste Remediation and Materials Recovery Services	D292200	D	None	2	0%
Industrial - Structural Steel Erection Services	E322400	E	None	2	0%
Industrial - Other Building Installation Services	E323900	E	None	8	1%
Industrial - Book and Magazine Wholesaling	F373500	F	None	2	0%
Industrial - Clothing and Footwear Wholesaling	F371200	F	None	6	0%
Industrial - Fish and Seafood Wholesaling	F360400	F	None	3	0%
Industrial - Fruit and Vegetable Wholesaling	F360500	F	None	1	0%
Industrial - Furniture and Floor Coverings Wholesaling	F373100	F	None	2	0%
Industrial - Jewellery and Watch Wholesaling	F373200	F	None	1	0%
Industrial - Kitchen and Dining Ware Wholesaling	F373300	F	None	2	0%
Industrial - Liquor and Tobacco Product Wholesaling	F360600	F	None	9	1%
Industrial - Meat, Poultry and Smallgoods Wholesaling	F360200	F	None	-	0%
Industrial - Other Agricultural Product Wholesaling	F331900	F	None	7	0%
Industrial - Other Machinery and Equipment Wholesaling n	F349900	F	None	2	0%
Industrial - Petroleum Product Wholesaling	F332100	F	None	5	0%
Industrial - Pharmaceutical and Toiletry Goods Wholesaling	F372000	F	None	4	0%
Industrial - Textile Product Wholesaling	F371100	F	None	2	0%
Industrial - Timber Wholesaling	F333100	F	None	3	0%
Industrial - Toy and Sporting Goods Wholesaling	F373400	F	None	5	0%
Industrial - Freight Forwarding Services	I529200	I	None	1	0%
Industrial - Other Transport Support Services n.e.c	I529900	I	None	6	0%
Rest of Manufacturing		C	None	-	0%
Sub-Total				140	9%

Source: M.E, Statistics NZ Business Directory.

Appendix B

Queenstown Lakes District Interim Business Development Capacity Assessment Update (Addendum Report, March 2020)

QUEENSTOWN LAKES DISTRICT COUNCIL

Business Development Capacity Assessment

Queenstown Lakes District Interim Update Addendum

13th March 2020 – final

m.e consulting

Business Development Capacity Assessment

Queenstown Lakes District Interim Update Addendum

Prepared for

Queenstown Lakes District Council

Document reference: QLDC021.20/Report/Interim BDCA Update Addendum.docs

Date of this version: 13th March 2020

Report author: Natalie Hampson

Director approval: Natalie Hampson

www.me.co.nz

Contents

Figures

1 Introduction

The purpose of this addendum report is to summarise the interim update of the QLDC BDCA modelling. While we have called it an 'interim' update, the update to the modelling has been comprehensive. The term 'interim' is used primarily to distinguish this update from a more formal update of the BDCA modelling and reporting anticipated later in 2020 in accordance with the NPS-UDC[1].

1.1 Scope of BDCA 2017 Modelling

The 2017 BDCA (final version published November 2018) comprised of estimated commercial, industrial and retail developable land and gross floor area (GFA) in urban environment business enabled zones and structure plan areas using a 2016 base year and estimates of vacant capacity (vacant sites and estimated maximum building envelope) surveyed as at January 2018.

The modelling incorporated three demand growth projections of population and average day tourist counts (Medium, High and QLDC adopted) which were run through the QLD Economic Futures Model (EFM) to produce employment projections by 48 economic sectors. These three employment projections were the key input to the demand modelling. The 2017 BDCA modelling was also based on property parcels that existed as at mid-2017 and a combination of notified Proposed District Plan (PDP) stage 1 zones, stage 2 open space zones and visitor accommodation sub-zones, and Operative District Plan (ODP) zones for the balance of the urban environment.

We refer readers to the BDCA 2017 report for a detailed explanation of the methodology, assumptions, limitations and results of the modelling.

1.2 Changes that Have Occurred Since the BDCA 2017 Modelling

Since the BDCA 2017 modelling was carried out, the following changes have occurred that impact on demand and capacity, and therefore the assessed sufficiency of business zoning in the urban environment:

1. In October 2018[2] QLDC received revised population projections. These showed that population growth was anticipated at a higher rate than previously projected under the High growth projections, and well above the QLDC adopted projections (that sat generally between Medium and High at the time). No change was made to the average day tourism projections. This means that demand for business land and GFA over the short, medium and long term is higher than previously modelled.

[1] M.E understands that new growth projections will be made available for any further update in 2020.

[2] These may also be referred to as December 2018 revised projections. They are the same.

2. Development has occurred where vacant sites identified in January 2018 are now developed and occupied by trading businesses[3] as at January 2020. This means that vacant capacity to cater for growth has reduced.

3. At the same time, there are a few instances where residential dwellings in business enabled zones have been demolished. These sites were vacant at the time of this year's ground truthing. The removal of residential dwellings provides the opportunity for the sites to be developed for business purposes as intended by the zoning. This means that vacant capacity to cater for business growth is increased in these locations[4].

4. The Decisions version of Stage 1 and 2 proposed zoning was released. While appeals are still to be resolved in some locations, the key changes are the addition of vacant capacity in the Coneburn Industrial Zone, the addition of vacant capacity in the BMU Zone in Five Mile, the addition of LSC Zone vacant capacity in Kelvin Heights (Deer Park) and the reduction of vacant capacity in the LSC Zone in Cardona Valley Road (Wanaka), with associated limits on total retail and office GFA. The implication of these changes was addressed in Natalie Hampson's Topic 2 appeals evidence for Council.

5. Lot 6 of the Remarkables Park Zone (RPZ) has been successfully transferred to Queenstown Airport Corporation (QAC) for airport related purposes. From a modelling perspective, the area is the same. While the zoning has not been changed, M.E has taken the approach that the activities and development enabled on the site swaps from the rules applied in the RPZ to that aligned to the airport (we have adopted the AMU Zone for this purpose)[5]. In accordance with the approach used in the model, this increases the amount of land able to be developed for industrial type land uses (albeit within the boundary of the airport) and reduces the land able to be developed for commercial land uses in Remarkables Park Special Zone.

6. Plan Change 53 for the Northlake Special Zone set new limits on the total retail GFA in Precinct D.

7. A land swap has occurred between the Community Purpose zone on Grant Road to Frankton Flats B Special Zone[6]. This land has been subdivided and developed with the exception of two sites that are currently vacant (noting that 'under construction' counts as vacant capacity). This increases the vacant capacity to cater for business growth in this location.

The interim update takes the above changes into account. Specifically:

- the EFM employment projections have been re-run using the October 2018 population projections. As tourism projections were not revised, the EFM ran this new scenario using the

[3] Occupied new developments was the defining factor for no longer being vacant capacity as only when they are occupied, do they absorb a portion of projected employment growth.

[4] The 2017 BDCA does not take account of redevelopment of buildings previously used for business purposes in business enabled zones. This approach was included in the NPS-UDC guidance. We maintain this approach but consider that removal of residential dwellings is distinct from the redevelopment process anticipated in the NPS-UDC and believe it is appropriate to include as vacant capacity.

[5] We note that the Decisions Version reverted all the air-side (i.e. runway side of the terminal) land to Rural Zone rather than the notified AMU Zone which was the basis on the BDCA 2017 modelling.

[6] Or it appears as a land swap at face value.

original High average day tourism projections and adopts other 'High' economic indicator growth rates.

- As the EFM still runs off a 2016 base year (a full 2020 BDCA update later this year would include an update of the EFM to the latest available base year), M.E has rebased the new October 2018 employment growth projection to 2018 actual employment counts by 48 sectors for each ward in the district. We have assumed the incremental growth (n) between each projected year and the projected 2018 counts remains the same and have applied this quantum of growth to the 2018 actuals.
- The base year of the demand model has been adjusted from 2016 to 2018. This means that the short term is now 2018-2021, the medium term is now 2018-2028 and the long term is now 2018-2048.
- The vacant capacity (reductions and increases) is now based on a snap-shot in January 2020. Note, as discussed in the BDCA 2017 report, it is not possible to have the base year of demand and the snap-shot of vacant capacity for the same year as there is always a lag in the availability of data informing demand modelling. However, we maintain the same 2 year gap between the demand base year and vacant capacity as per the BDCA 2017.
- The zoning framework of the model is now based on the combined ODP and PDP (i.e. Decisions Version on Stage 1 and 2 and remaining operative zones). We note that the parcel boundaries within the business enabled zones have not been updated but we have used current parcel boundaries to help quantify the area of remaining vacant capacity in those areas that have recently undergone subdivision and some development.
- The urban growth boundary (UGB) and definition of the urban environment is adjusted to recognise the rural up-zoning in the Decisions Version of the PDP. Otherwise, the extent of the urban environment remains unchanged and still excludes locations such as Millbrook, Cardona, Kingston, Glenorchy and others as discussed in the BDCA 2017[7].

There are a few minor and site specific changes not otherwise described above that M.E has made to the model as part of the interim update. The implication of these changes is that there are slight discrepancies between the results now modelled for the 'original BDCA 2017 vacant capacity' scenario compared to those reported for the BDCA 2017. For the most part, these changes improve the robustness of the model and original assumptions and rectify any minor errors that were identified. These minor 'corrections' can be summarised as follows:

[7] The Hawea SHA is not included in the urban environment of Hawea in accordance with the current UGB boundary. Any retail or commercial vacant capacity provided for by the proposed Township Service Centre (if consented) will be net additional to the modelled vacant capacity.

1. Removal of a couple of sites deemed vacant in October 2018 where these are now considered to have been incorrectly classified.
2. Removal of the road area of the notified LSC Zone on Cardrona Valley Road. Originally, all 2.7ha of this site was treated as developable and this overstated the net developable area that could be developed.
3. Slight adjustment of the Rural Visitor Zone boundary in Arthurs Point to more accurately match the northern boundary definition.
4. Removal of the final road area in the Ballantyne Road Industrial B Zone (Ballantyne Ridge) based on the current subdivision pattern. This exclusion of non-developable land area was previously based on estimates.
5. Adjustment to the developable land area ratios (from gross structure plan areas) in the Remarkables Park Zone. With the update of land parcel boundaries, these areas can now be estimated more accurately to exclude road area than was otherwise possible.
6. Adjustment of the modelling of Three Parks to take account of current parcel boundaries. This has allowed for a more accurate definition of the original structure plan precinct boundaries while also allowing for Stage 3 proposals to be modelled (discussed further below). This has resulted in slight amendments to the area of operative business enabled structure plan precincts within Three Parks. We have also removed the limitation of 10,000sqm retail GFA each in the Commercial Core precinct and Deferred Commercial precinct as these did not reflect the plan enabled capacity, only the permitted cap in the Commercial Core which underestimated vacant capacity over the long-term.
7. Amendments to the developable area of precinct D in the Northlake Special Zone (being the business enabled precinct) to limit business development to the lots that make up the 'village' only.

With the exception of these changes, the model remains the same (refer the BDCA 2017 report).

2 Vacant Capacity Changes – Key Findings

As described above, there have been a mix or reductions in vacant capacity and additions in vacant capacity between January 2018 and January 2020 across different zones. The results below help to illustrate those changes – to distinguish vacant land up-take from other modelling adjustments.

2.1 Reported January 2018 vs Adjusted January 2018

This relates to minor adjustments to the original base data reported in the BDCA 2017.

Overall, the BDCA 2017 total business enabled zone developable land vacant capacity was reported as 72.0 ha for the Wanaka Ward and 180.5 ha for the Wakatipu Ward[8] and 252.5 ha for the total district. The equivalent January 2018 values in the interim update model are now reported as 77.9 ha for the Wanaka Ward (+8.3%) and 181.2 ha for the Wakatipu Ward (+0.4%) and 259.2 ha (+2.6%) for the total district. These minor changes are the discrepancies described above that have been addressed (excluding the reclassification of sites no-longer considered vacant). We can provide further detail on these changes if required.

Similar adjustments to GFA apply but for brevity are not outlined here. The total district vacant GFA as at January 2018 is now reported as 3,221,400 sqm (+ 1.7% above the original reported estimate).

2.2 Adjusted January 2018 vs January 2020

This relates mainly to up-take of vacant capacity during that period.

Figure 1 compares the (adjusted) 2018 vacant developable land area with the same measure in January 2020, with no other changes to the zoning framework. This isolates the net up-take of vacant capacity over the past 2 years but also includes the reductions associated with the reclassification of some original vacant sites (so is not purely development up-take). The results are summarised at the zone level for the total district. The first of the red columns in the table quantifies the reductions.

There is now 13.14 ha less vacant developable land area available in net terms for future business activity growth compared with January 2018. This is an average rate of vacant land consumption for the total district of 6.57 ha per annum. As this includes some minor reclassification and the creation of some new vacant lots that were previously residential land use, this rate slightly overstates the rate of consumption on an annual basis and so should be considered an upper limit.

The net reduction in non-special zones over that two year period has been -3.63 ha (an average of -1.18 ha per annum) and has been concentrated in the Industrial A zone (29%), the Rural Visitor Zone in Arthurs

[8] Includes the Arrowtown Ward.

Point (22%), the Airport Mixed Use Zone (18%)[9], the Low Density Residential zone (13%, relates to development in the Visitor Accommodation Sub-zone in Fernhill) and the Queenstown Town Centre (11%).

Figure 1 – Developable Vacant Capacity Changes January 2018-2020 – Up-take and Zone Changes

Zoning Scenario		January 2018 Zone (Notified PDP Stage 1 and 2 and Operative)	January 2018 Zone (Notified PDP Stage 1 and 2 and Operative)		January 2020 Zone (Consolidated District Plan Plus Other Changes)	
Area Calc Scenario		January 2018 Area (SQM)	January 2018 Area (SQM)		January 2020 Area (SQM)	
Ground Truthing Date Scenario		January 2018 Vacant	January 2020 Vacant		January 2020 Vacant	
Ground Truthing Date Scenario		January 2018 Vacant Share	January 2020 Vacant Share		January 2020 Vacant Share	
District Plan Zone	District Plan Zone & Sub-Zone (Combo)	Final Vacant Developable Business Land (Est. Net)	Final Vacant Developable Business Land (Est. Net)	Change in Vacant Capacity Only 2018-2020 (development plus some assumption changes)	Final Vacant Developable Business Land (Est. Net)	Change in Vacant Capacity 2018-2020 and Decisions Version and Other Changes
Zones Excluding Special Zones						
Airport Mixed Use Zone		10.6	9.9	- 0.64	23.2	12.65
Business (Operative)		0.4	0.4	-	0.4	-
Business Mixed Use		4.7	4.7	-	10.5	5.76
Industrial A (Operative)		2.9	1.9	- 1.04	1.9	- 1.04
Industrial B (Operative)		11.8	11.5	- 0.25	11.5	- 0.25
Local Shopping Centre		4.6	4.6	-	4.5	- 0.06
Low Density Residential		13.8	13.3	- 0.46	13.3	- 0.46
Medium Density Residential		0.1	0.1	-	0.1	-
Rural Visitor (Arthurs Point only)		12.4	11.6	- 0.79	11.6	- 0.79
Rural (Luggate Industrial Overlay only)		-	-	-	-	-
Town Centre Arrowtown		-	-	-	-	-
Town Centre Queenstown		5.3	4.9	- 0.40	5.3	- 0.06
Town Centre Wanaka		0.9	0.9	- 0.05	0.9	- 0.05
Township (Operative)		1.0	1.0	-	1.0	-
TOTAL		68.5	64.9	- 3.63	84.2	15.71
Special Zones						
Special Zone	Special Zone - Ballantyne Road Mixed Use	14.9	14.9	-	14.9	-
Special Zone	Special Zone - Northlake	2.1	1.1	- 1.01	1.1	- 1.01
Special Zone	Special Zone - Frankton Flats A	0.3	0.2	- 0.06	0.2	- 0.06
Special Zone	Special Zone - Frankton Flats B	36.5	32.6	- 3.96	33.1	- 3.43
Special Zone	Special Zone - Remarkables Park	76.3	74.4	- 1.82	61.2	- 15.11
Special Zone	Special Zone - Shotover Country	0.2	0.2	-	0.2	-
Special Zone	Special Zone - Three Parks	40.6	37.9	- 2.66	37.9	- 2.66
Special Zone	Coneburn Industrial	-	-	-	19.2	19.19
Special Zone	Special Zone - Jacks Point	19.9	19.9	-	19.9	-
TOTAL		190.7	181.1	- 9.51	187.6	- 3.09
TOTAL URBAN ENVIRONMENT		259.2	246.0	- 13.14	271.8	12.62

Source: M.E QLD Business Capacity Model Feb 2020. Visitor Accommodation Sub-Zones included in underlying residential zones.
Vacant business land in special zones associated with business enabled precincts only. Rural Zone relates only to Luggate Rural Industrial Sub-Zone.
Rural Visitor relates only to Arthurs Point unless showing results under Stage 3 Zoning (other Rural Visitor Zones are outside the defined urban environment).

[9] The model has treated all airport land as AMU Zone, including in the Decisions Version scenario. This reduction occurred as a result of development at the end of Glenda Drive.

The net reduction in the special zones over that two year period has been -9.51 ha (an average of 4.76 ha per annum). This development has been concentrated in the Frankton Flats B zone (42%), followed by Three Parks (28%), Remarkables Park (19%) and Northlake (Village) (11%[10]).

Overall, across all zone types, the biggest net reduction has been in the Frankton Flats B zone (30% of all district vacant land up-take), followed by Three Parks (20% of the total) and Remarkables Park (14% of the total). Development of business enabled zones/precincts in the last two years has been focussed on these special zones (72% combined). These are also the zones which have the greatest vacant capacity available for development (74% of the total as a January 2020). Prior to any changes resulting from the Decisions Version of Stages 1 and 2, the net vacant developable area for the district in January 2020 sits at 246 ha, spread over a mix of zone/precinct types.

2.3 Adjusted January 2018 vs January 2020 with Decisions Version Changes

The column of data second from the right in Figure 1 shows the net vacant developable land area with the cumulative effect of vacant site up-take between 2018 and 2020 *and* other zoning changes that have occurred in that period – mainly the Decisions Version of Stages 1 and 2 but also the land swap in Grant Road and the switch of Lot 6 to the airport (although no net change in vacant land area). The red column on the far right quantifies the net change compared with the (adjusted) 2018 baseline.

The net change in the total district vacant developable land area is 12.62 ha greater than in January 2018 (271.8 ha). This shows that the net zoning changes alone (25.76 ha of net vacant land area) have more than offset the up-take of vacant land in that period (-13.14 ha). There is now more vacant land capacity available for business growth than there was two years ago, despite a steady rate of development.

The main net gains have been in the Business Mixed Use Zone (up an estimated 5.76 ha of vacant land area due to the up-zoning of rural land in Five Mile) and in the Coneburn Industrial Zone (up an estimated 19.2 ha of vacant developable site area due to up-zoning of rural land). The zone change (land swap) along Grants Road shows an increase in vacant capacity in the Frankton Flats Special Zone of 0.52 ha. The reduction of LSC Zone in Cardrona Valley Road offset the increase in LSC Zone in Kelvin Heights – the net change is -0.06 ha of vacant capacity for this zone.

The overall changes of this scenario compared to the original 2018 baseline (far right red column Figure 1) show that the non-special zones have a net increase in vacant land area of 15.71 ha (to reach 84.2 ha). The special zones combined have a net loss of 3.09 ha to reach an estimated 187.6ha of vacant capacity for business growth. The impact of the Decisions Version changes on non-special zones during that period is logical because special zones were largely outside the scope of Stages 1 and 2 of the PDP.

[10] Care is needed with the percentage figure implied for Northlake as the original estimate of developable business area in Precinct D was larger than the current Village extent. As such, the development that has taken place east of Mount Linton Avenue in the last two years accounts for a larger share of the actual village lot area.

The changes made to zoning since 2018 have kept ahead of development up-take in many parts of the district. This is a result of the district plan review process (and may continue for the duration of the plan change review – see Stage 3 discussion further below) but may not be representative of a typical year where development is ongoing and plan changes are more ad hoc/developer led.

2.4 January 2020 – New Baseline of Vacant Capacity

The combined ODP and PDP (Decisions Version of Stages 1 and 2 (outstanding appeals not withstanding)) and other zoning changes, combined with the latest estimates of vacant developable site area (January 2020) is recommended as the new base for assessing the sufficiency of QLD's business enabled zones and precincts[11].

In keeping with the approach reported in the BDCA 2017, capacity can be expressed by broad category of land-use (commercial, industrial and retail). The activity status of many zones enables a mix of activities that could allow for development in one or more category. Where such flexibility exists, the vacant capacity can be counted against one or more category – resulting in double counting. This scenario is described in the BDCA 2017 report as the 'Maximum Capacity Scenario'. M.E gives limited weight to this scenario for reasons explained in the BDCA 2017 report, but for completeness, Figure 2 summarises the updated 'Maximum Capacity Scenario' for vacant land area for each ward[12].

The BDCA also included an 'Alternative Capacity Scenario' where double counting of vacant capacity across categories is removed based on assumptions on how capacity in each zone (and location) may be taken up by development – favouring the highest value return for the land and taking into consideration past development trends. A summary of the assumptions underlying this scenario is included in the BDCA 2017 report.

New assumptions were made for zones/areas added in the current zoning framework. For the new BMU Zone in Five mile, the same allocation of capacity applied to the BMU zone in other locations was applied (favouring commercial and retail over industrial land use). For the new LSC in Kelvin Heights, the same allocation as in other LSC zones is applied (a mix of retail and commercial with retail limited to the ground floor). In the Coneburn Industrial Zone, the assumption is that all capacity is allocated to industrial land-uses/building typologies[13]. For the two vacant sites now included in Grant Road (land swap area), these are allocated according to an even split between commercial and industrial land uses/building typologies (i.e. indicatively one of each). As emphasised in the BDCA 2017 report, this scenario is one of many ways in which development may 'play out' in each zone location. While other scenarios can be developed, this is the only alternative scenario that M.E has reported.

---

[11] Alternatively, the notified Stage 3 zoning framework could be treated as the new BDCA baseline. M.E welcomes QLDC input on the preferred position here. In the meantime, this report adopts the ODP with PDP Decisions version on Stages 1 and 2 (and other recent zoning changes) as the baseline so that the relative impact of Stage 3 zoning can be highlighted.

[12] For brevity, the equivalent GFA table is not included in this addendum report but is available upon request.

[13] While the rules enable some small scale food and beverage activities (commercial) this is expected to account for a minor share of total built area and so is excluded. The rules also enable trade suppliers, but in the approach used in the model, these are likely to take the built form of warehouses more than shops and so are captured in the industrial category.

Figure 2 – Maximum Vacant Capacity Scenario by Category and Ward – Current Zoning Framework (January 2020)

Zone	Wanaka Ward Commercial	Wanaka Ward Industrial	Wanaka Ward Retail	Wakatipu Ward Commercial	Wakatipu Ward Industrial	Wakatipu Ward Retail
Airport Mixed Use Zone	-	-	-	-	23.2	-
Arrowtown Residential Historic Management Zone	-	-	-	-	-	-
Business (Operative)	-	-	-	0.4	0.4	-
Business Mixed Use	0.5	0.5	0.5	10.0	10.0	10.0
High Density Residential	-	-	-	-	-	-
High Density Residential (Operative)	-	-	-	-	-	-
Industrial A (Operative)	1.5	1.5	-	0.4	0.4	-
Industrial B (Operative)	11.5	11.5	0.2	-	-	-
Large Lot Residential	-	-	-	-	-	-
Local Shopping Centre	1.8	-	1.8	2.7	-	2.7
Low Density Residential	1.6	-	-	11.7	-	-
Medium Density Residential	0.1	-	0.1	-	-	-
Rural Visitor	-	-	-	11.6	-	-
Rural	-	-	-	-	-	-
Town Centre Arrowtown	-	-	-	-	-	-
Town Centre Queenstown	-	-	-	5.3	-	5.3
Town Centre Wanaka	0.9	-	0.9	-	-	-
Township (Operative)	1.0	-	0.5	-	-	-
Sub-Total Non-Special Zones	18.97	13.5	4.0	42.0	34.0	18.0
Special Zone - Arrowtown South	-	-	-	-	-	-
Special Zone - Ballantyne Road Mixed Use	14.9	14.9	-	-	-	-
Special Zone - Northlake	1.1	-	1.1	-	-	-
Special Zone - Frankton Flats A	-	-	-	0.2	-	0.2
Special Zone - Frankton Flats B	-	-	-	32.6	25.7	9.1
Frankton Flats B - Land Swap	-	-	-	0.5	0.5	-
Special Zone - Meadow Park	-	-	-	-	-	-
Special Zone - Penrith Park	-	-	-	-	-	-
Coneburn Industrial	-	-	-	19.2	19.2	19.2
Special Zone - Quail Rise	-	-	-	-	-	-
Special Zone - Remarkables Park	-	-	-	61.2	-	12.6
Special Zone - Shotover Country	-	-	-	0.2	-	0.2
Special Zone - Three Parks	37.9	8.2	33.1	-	-	-
Special Zone - Jacks Point	-	-	-	19.9	-	6.2
Sub-Total Special Zones	53.9	23.1	34.2	133.7	45.5	47.5
Total Urban Business Enabled Zones	72.9	36.6	38.2	175.7	79.4	65.4

Source: M.E QLD Business Capacity Model Feb 2020. Visitor Accommodation Sub-Zones included in underlying residential zones.
Vacant business land in special zones associated with business enabled precincts only. Rural Zone relates only to Luggate Rural Industrial Sub-Zone.
Rural Visitor relates only to Arthurs Point unless showing results under Stage 3 Zoning (other Rural Visitor Zones are outside the defined urban environment).
Wakatipu Ward includes Arrowtown Ward.

Figure 3 provides a summary of vacant developable land capacity under the Alternative Capacity Scenario for each ward[14].

The results of this scenario show, for example, that in the Wanaka ward, there is indicatively 27.1 ha of vacant capacity potentially available for industrial land-use development (industrial building typologies) as at January 2020. This is out of a maximum vacant industrial land capacity of 36.6 ha. In the Wakatipu ward,

[14] For brevity, the equivalent GFA table is not included in this addendum report but is available upon request.

there is indicatively 59.7 ha of vacant capacity potentially available for industrial land-use development. This is out of a maximum vacant industrial land capacity of 79.4 ha.

Figure 3 – Alternate Vacant Capacity Scenario by Category and Ward – Current Zoning Framework (January 2020)

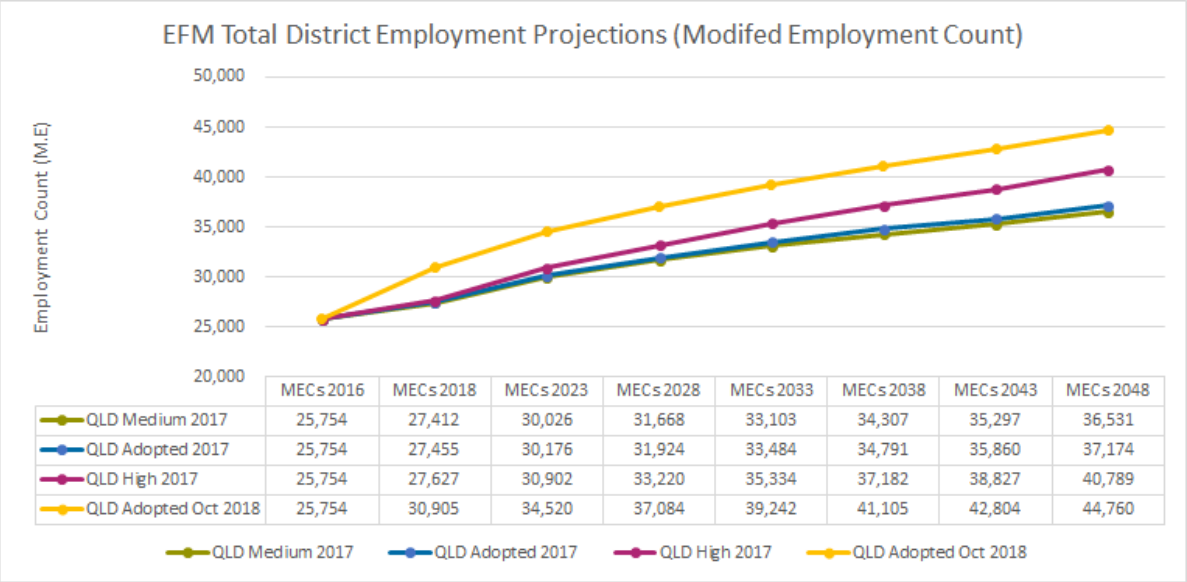
Zone	Wanaka Ward Commercial	Wanaka Ward Industrial	Wanaka Ward Retail	Wakatipu Ward Commercial	Wakatipu Ward Industrial	Wakatipu Ward Retail
Airport Mixed Use Zone	-	-	-	-	23.2	-
Arrowtown Residential Historic Management Zone	-	-	-	-	-	-
Business (Operative)	-	-	-	0.4	-	-
Business Mixed Use	0.5	-	0.5	10.0	-	10.0
High Density Residential	-	-	-	-	-	-
High Density Residential (Operative)	-	-	-	-	-	-
Industrial A (Operative)	-	1.5	-	0.4	-	-
Industrial B (Operative)	0.2	11.3	-	-	-	-
Large Lot Residential	-	-	-	-	-	-
Local Shopping Centre	1.5	-	1.8	2.7	-	2.7
Low Density Residential	1.6	-	-	11.7	-	-
Medium Density Residential	0.1	-	-	-	-	-
Rural Visitor	-	-	-	11.6	-	-
Rural	-	-	-	-	-	-
Town Centre Arrowtown	-	-	-	-	-	-
Town Centre Queenstown	-	-	-	5.3	-	5.3
Town Centre Wanaka	0.9	-	0.9	-	-	-
Township (Operative)	1.0	-	0.5	-	-	-
Sub-Total Non-Special Zones	5.8	12.8	3.7	42.0	23.2	18.0
Special Zone - Arrowtown South	-	-	-	-	-	-
Special Zone - Ballantyne Road Mixed Use	3.0	11.9	-	-	-	-
Special Zone - Northlake	1.1	-	1.1	-	-	-
Special Zone - Frankton Flats A	-	-	-	0.2	-	0.2
Special Zone - Frankton Flats B	-	-	-	15.5	17.0	3.5
Frankton Flats B - Land Swap	-	-	-	0.3	0.3	-
Special Zone - Meadow Park	-	-	-	-	-	-
Special Zone - Penrith Park	-	-	-	-	-	-
Coneburn Industrial	-	-	-	-	19.2	-
Special Zone - Quail Rise	-	-	-	-	-	-
Special Zone - Remarkables Park	-	-	-	61.2	-	12.6
Special Zone - Shotover Country	-	-	-	-	-	0.2
Special Zone - Three Parks	35.5	2.4	33.1	-	-	-
Special Zone - Jacks Point	-	-	-	19.7	-	6.2
Sub-Total Special Zones	39.6	14.3	34.2	96.8	36.5	22.7
Total Urban Business Enabled Zones	45.4	27.1	37.9	138.9	59.7	40.6

Source: M.E QLD Business Capacity Model Feb 2020. Visitor Accommodation Sub-Zones included in underlying residential zones.
Vacant business land in special zones associated with business enabled precincts only. Rural Zone relates only to Luggate Rural Industrial Sub-Zone.
Rural Visitor relates only to Arthurs Point unless showing results under Stage 3 Zoning (other Rural Visitor Zones are outside the defined urban environment).
Wakatipu Ward includes Arrowtown Ward.

3 Demand Changes – Key Findings

As discussed above, the interim BDCA demand model update is now running off a revised growth projection and a 2018 base year. To illustrate the impact of the new growth projection on total district employment, the graph below shows the combined effect (Figure 4).

Figure 4 – Comparison of EFM Total District Employment Projections (MECs) by Growth Projection



	MECs 2016	MECs 2018	MECs 2023	MECs 2028	MECs 2033	MECs 2038	MECs 2043	MECs 2048
QLD Medium 2017	25,754	27,412	30,026	31,668	33,103	34,307	35,297	36,531
QLD Adopted 2017	25,754	27,455	30,176	31,924	33,484	34,791	35,860	37,174
QLD High 2017	25,754	27,627	30,902	33,220	35,334	37,182	38,827	40,789
QLD Adopted Oct 2018	25,754	30,905	34,520	37,084	39,242	41,105	42,804	44,760

The current October 2018 based employment growth scenario is showing projected total employment in 2048 of 44,760 MECs compared with just over 37,174 MECs under the earlier adopted (recommended) scenario. The actual employment growth between 2016 and 2018 (shown in the October 2018 scenario only) is significant compared with the projected growth to 2018 in previous EFM scenarios. This higher employment growth projection translates to a higher quantum of demand for business land and GFA in the short, medium and long-term than previously modelled in the BDCA 2017.

Updated land demand by land-use/building typology in the Wanaka Ward is summarised in Figure 5 (excluding any margin on top of demand):

Figure 5 – Demand for developable land area in Wanaka Ward 2018-2048 (October 2018 Projection)

Category	Land Use / Building Type	Land Demand (Ha)			
		Short Term (2018-2021)	Medium Term (2022-2028)	Long Term (2029-2048)	Total (2018-2048)
Commercial	Office---Commercial	0.1	0.2	0.4	0.7
	Office---Retail	0.0	0.0	0.1	0.1
	Accommodation	1.1	1.8	2.9	5.8
	Yard---Commercial	0.0	0.1	0.1	0.2
	Other Built---Commercial	0.3	0.5	1.0	1.8
	Education	0.1	0.2	0.3	0.7
	Outdoor---Commercial	0.0	0.0	0.0	0.0
Industrial	Warehouse	0.8	1.5	3.1	5.4
	Factory	0.3	0.6	1.2	2.1
	Yard---Industrial	0.3	0.5	1.2	2.0
	Other Built---Industrial	0.1	0.2	0.6	1.0
Retail	Shops---Commercial	0.4	0.8	1.3	2.6
	Shops---Food and Beverage	0.5	0.8	1.2	2.5
TOTAL		4.1	7.5	13.3	24.9

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E

Projected demand within core business enabled zones in defined urban environment only (defined by meshblock 2013)

Updated land demand by land-use/building typology in the Wakatipu Ward is summarised in Figure 6 (excluding any margin on top of demand):

Figure 6 – Demand for developable land area in Wakatipu Ward 2018-2048 (October 2018 Projection)

Category	Land Use / Building Type	Land Demand (Ha)			
		Short Term (2018-2021)	Medium Term (2022-2028)	Long Term (2029-2048)	Total (2018-2048)
Commercial	Office---Commercial	0.5	0.9	1.5	2.8
	Office---Retail	0.1	0.1	0.2	0.4
	Accommodation	3.1	5.4	11.0	19.5
	Yard---Commercial	0.1	0.2	0.3	0.5
	Other Built---Commercial	1.0	1.9	3.4	6.3
	Education	0.6	0.9	1.2	2.7
	Outdoor---Commercial	0.0	0.0	0.1	0.1
Industrial	Warehouse	2.9	5.7	11.4	20.0
	Factory	1.3	2.3	4.4	7.9
	Yard---Industrial	1.2	2.3	4.9	8.4
	Other Built---Industrial	0.5	1.0	2.4	3.9
Retail	Shops---Commercial	1.1	2.0	3.5	6.5
	Shops---Food and Beverage	1.3	2.3	4.7	8.2
TOTAL		13.5	24.9	48.8	87.2

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E

Projected demand within core business enabled zones in defined urban environment only (defined by meshblock 2013)

Total district land demand by broad category of land-use is summarised in Figure 7 (excluding any margin on top of demand):

Figure 7 – Demand for developable land area in Total QLD 2018-2048 (October 2018 Projection)

Category	Growth Projection	Land Demand (Ha)			
		Short Term (2018-2021)	Medium Term (2022-2028)	Long Term (2029-2048)	Total (2018-2048)
Commercial	Recommended (Oct 2018)	7.0	12.3	22.3	41.7
Industrial	Recommended (Oct 2018)	7.3	14.2	29.1	50.6
Retail	Recommended (Oct 2018)	3.3	5.8	10.7	19.8
Total	Recommended (Oct 2018)	17.7	32.3	62.1	112.1

Source: QLD EFM 2018, 2020 Update, M.E

Projected demand within core business enabled zones in defined urban environment only (defined by meshblock 2013)

In comparison with the QLD adopted 2017 (recommended) demand projection for the total district, the current adopted demand for total business land is -0.9 ha (-5%) less in the short-term, is 6.2 ha (+24%) greater in the medium-term and 19.0 ha (+44% greater in the long-term. In total over a 30 year outlook (and excluding any margin on top of demand), the current demand scenario is 24.3 ha (+28%) higher than previously reported.

By broad category for the total district, the October 2018 scenario of commercial land demand (excluding a margin) is 8.3 ha higher over a 30 year outlook (+25%) compared to the 2017 adopted scenario. It is 12.4 ha higher for industrial land demand (+33%) and 3.57 ha (+22) higher for retail land demand.

4 Sufficiency Changes – Key Findings

This section compares updated business land and GFA demand with the current estimates of vacant capacity. In accordance with the NPS-UDC guidance, the following demand estimates include a margin on top of demand. This margin is discussed further in the BDCA 2017 report.

The following two tables (Figure 8 and 9) show that the combined ODP and PDP (Decisions Version on Stages 1 and 2 plus other recent zone changes) supply sufficient vacant land and floorspace GFA capacity to cater for projected long-term demand according to the Maximum Capacity Scenario.

Figure 8 – Updated Land Sufficiency by Ward and Category – Maximum Capacity Scenario

Category by Ward	Cumulative Land Demand (Ha)			Total Vacant Business Zone Land 2020 (ha) *	Sufficiency		
	Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)		Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)
Commercial							
Wakatipu	6.4	17.7	37.9	175.7	Sufficient	Sufficient	Sufficient
Wanaka	2.1	5.6	11.0	72.9	Sufficient	Sufficient	Sufficient
TOTAL	**8.5**	**23.3**	**48.9**	**248.6**	Sufficient	Sufficient	Sufficient
Retail							
Wakatipu	2.8	7.9	17.3	65.4	Sufficient	Sufficient	Sufficient
Wanaka	1.1	3.0	5.9	38.2	Sufficient	Sufficient	Sufficient
TOTAL	**3.9**	**10.9**	**23.2**	**103.6**	Sufficient	Sufficient	Sufficient
Industrial							
Wakatipu	7.0	20.5	47.0	79.4	Sufficient	Sufficient	Sufficient
Wanaka	1.8	5.3	12.3	36.6	Sufficient	Sufficient	Sufficient
TOTAL	**8.8**	**25.8**	**59.3**	**116.0**	Sufficient	Sufficient	Sufficient

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E

*Projected demand and current capacity within core business enabled zones in defined urban environment only. Wakatipu Ward includes both Queenstown and Arrowtown Wards. * Maximum capacity assuming no uptake by other enabled land uses. Will overstate capacity where other land uses take precedent.*

Capacity Scenario: ***January 2020 Zone (Consolidated District Plan Plus Other Changes)***

Figure 9 – Updated GFA Sufficiency by Ward and Category – Maximum Capacity Scenario

Category by Ward	Cumulative GFA Demand (sqm)			Total Vacant Business Zone GFA 2020 (sqm) *	Sufficiency		
	Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)		Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)
Commercial							
Wakatipu	31,900	88,600	190,900	1,852,700	Sufficient	Sufficient	Sufficient
Wanaka	10,400	28,000	55,100	653,700	Sufficient	Sufficient	Sufficient
TOTAL	**42,300**	**116,600**	**246,000**	**2,506,400**	Sufficient	Sufficient	Sufficient
Retail							
Wakatipu	15,600	43,400	94,400	321,400	Sufficient	Sufficient	Sufficient
Wanaka	6,000	16,300	32,300	142,000	Sufficient	Sufficient	Sufficient
TOTAL	**21,600**	**59,700**	**126,700**	**463,400**	Sufficient	Sufficient	Sufficient
Industrial							
Wakatipu	33,000	96,000	219,400	446,700	Sufficient	Sufficient	Sufficient
Wanaka	8,300	24,900	57,600	143,000	Sufficient	Sufficient	Sufficient
TOTAL	**41,300**	**120,900**	**277,000**	**589,700**	Sufficient	Sufficient	Sufficient

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E. Figures rounded to nearest 100.
*Projected demand and current capacity within core business enabled zones in defined urban environment only. Wakatipu Ward includes both Queenstown and Arrowtown Wards. * Maximum capacity assuming no uptake by other enabled land uses. Will overstate capacity where other land uses take precedent.*
Capacity Scenario: ***January 2020 Zone (Consolidated District Plan Plus Other Changes)***

When we compare demand with the Alternative Capacity Scenario, where the overlap of vacant capacity is removed through a range of assumptions, the ODP and PDP (Decisions Version on Stages 1 and 2 plus other recent zone changes) still supply sufficient vacant land capacity to cater for projected long-term growth (Figure 10).

Figure 10 – Updated Land Sufficiency by Ward and Category – Alternate Capacity Scenario

Category by Ward	Cumulative Land Demand (Ha)			Total Vacant Business Zone Land 2020 (ha) *	Sufficiency		
	Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)		Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)
Commercial							
Wakatipu	6.4	17.7	37.9	138.9	Sufficient	Sufficient	Sufficient
Wanaka	2.1	5.6	11.0	45.4	Sufficient	Sufficient	Sufficient
TOTAL	**8.5**	**23.3**	**48.9**	**184.3**	Sufficient	Sufficient	Sufficient
Retail							
Wakatipu	2.8	7.9	17.3	40.6	Sufficient	Sufficient	Sufficient
Wanaka	1.1	3.0	5.9	37.9	Sufficient	Sufficient	Sufficient
TOTAL	**3.9**	**10.9**	**23.2**	**78.5**	Sufficient	Sufficient	Sufficient
Industrial							
Wakatipu	7.0	20.5	47.0	59.7	Sufficient	Sufficient	Sufficient
Wanaka	1.8	5.3	12.3	27.1	Sufficient	Sufficient	Sufficient
TOTAL	**8.8**	**25.8**	**59.3**	**86.9**	Sufficient	Sufficient	Sufficient

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E
*Projected demand and current capacity within core business enabled zones in defined urban environment only. Wakatipu Ward includes both Queenstown and Arrowtown Wards. * Overlap in capacity has been removed, refer to the scenario assumptions in appendices.*
Capacity Scenario: ***January 2020 Zone (Consolidated District Plan Plus Other Changes)***

These results, which M.E gives more weight to that the above Maximum Capacity Scenario despite the uncertainty associated with the allocation assumptions between broad land use categories, show that:

- Indicative vacant capacity for industrial land-use/building typology development exceeds long-term demand by nearly 13 ha by 2048 in the Wakatipu Ward.

- Indicative vacant capacity for industrial land-use/building typology development exceeds long-term demand by nearly 15 ha by 2048 in the Wanaka Ward.
- For retail and commercial results, refer to the tables.

A significant share of industrial land-use capacity in the Maximum and Alternative Capacity Scenarios is tied up in the AMU Zone (which for the purpose of this model includes the Rural Zoned area within the bounds of the airport and runway and inclusive of Lot 6 transferred from the Remarkables Park Zone). This zone area equates to just over 23 ha of what is considered industrial land-use capacity. As discussed in the BDCA 2017 report, we have assumed that this capacity (inclusive of Lot 6) is available for growth in the Air Transport Services Sector only and not the general industrial market. M.E consider it relevant to assess the sufficiency results under the Alternative Capacity Scenario with this capacity excluded, in addition to the exclusion of demand associated with the Air Transport Services Sector in the Wakatipu Ward.

Figure 11 shows that when this airport specific capacity and demand is excluded, the Wakatipu Ward does not have sufficient vacant capacity to cater for projected long-term demand (inclusive of a margin) for industrial land-use/building typology development. This is despite the addition of the Coneburn Industrial Zone. The estimated shortfall under this scenario is just over 6 ha of industrial zone capacity by 2048.

Figure 11 – Updated Land Sufficiency by Ward and Category – Alternate Capacity Scenario - Excluding AMU Zone Capacity and Wakatipu Ward Air Transport Services Sector Demand

Category by Ward	Cumulative Land Demand (Ha)			Total Vacant Business Zone Land 2020 (ha) *	Sufficiency		
	Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)		Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)
Commercial							
Wakatipu	6.4	17.7	37.9	138.9	Sufficient	Sufficient	Sufficient
Wanaka	2.1	5.6	11.0	45.4	Sufficient	Sufficient	Sufficient
TOTAL	**8.5**	**23.3**	**48.9**	**184.3**	Sufficient	Sufficient	Sufficient
Retail							
Wakatipu	2.8	7.9	17.3	40.6	Sufficient	Sufficient	Sufficient
Wanaka	1.1	3.0	5.9	37.9	Sufficient	Sufficient	Sufficient
TOTAL	**3.9**	**10.9**	**23.2**	**78.5**	Sufficient	Sufficient	Sufficient
Industrial							
Wakatipu	6.2	18.4	42.6	36.5	Sufficient	Sufficient	Insufficient
Wanaka	1.8	5.3	12.3	27.1	Sufficient	Sufficient	Sufficient
TOTAL	**8.0**	**23.7**	**54.9**	**63.6**	Sufficient	Sufficient	Sufficient

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E

*Projected demand and current capacity within core business enabled zones in defined urban environment only. Wakatipu Ward includes both Queenstown and Arrowtown Wards. * Overlap in capacity has been removed, refer to the scenario assumptions in appendices. Queenstown Airport demand & capacity excluded.*

Capacity Scenario: ***January 2020 Zone (Consolidated District Plan Plus Other Changes)***

NOTE - EXCLUDES INDUSTRIAL AND COMMERCIAL DEMAND FOR AIR TRANSPORT SERVICES IN WAKATIPU WARD AND CAPACITY IN THE AIRPORT MIXED USE

One further issue compounds the potential shortfall of industrial capacity in the Wakatipu Ward. QAC Limited own an estimated 13.36 ha of vacant land in the Frankton Flats B Special Zone.

Under the Alternative Capacity Scenario, 8.68 ha of this is indicatively available for industrial land-use/building typologies[15]. This issue is discussed further in Natalie Hampson's Topic 2 evidence on BDCA 2017 for Council. It is possible that this QAC land will not be made available for general market industrial demand and QAC may choose to reserve the opportunity for this land to be used for airport related development or expansion (i.e. demand associated with the Air Transport Services sector).

Figure 12 – Updated Land Sufficiency by Ward and Category – Alternate Capacity Scenario - Excluding AMU Zone Capacity and Wakatipu Ward Air Transport Services Sector Demand and QAC Industrial Capacity in FFB Zone

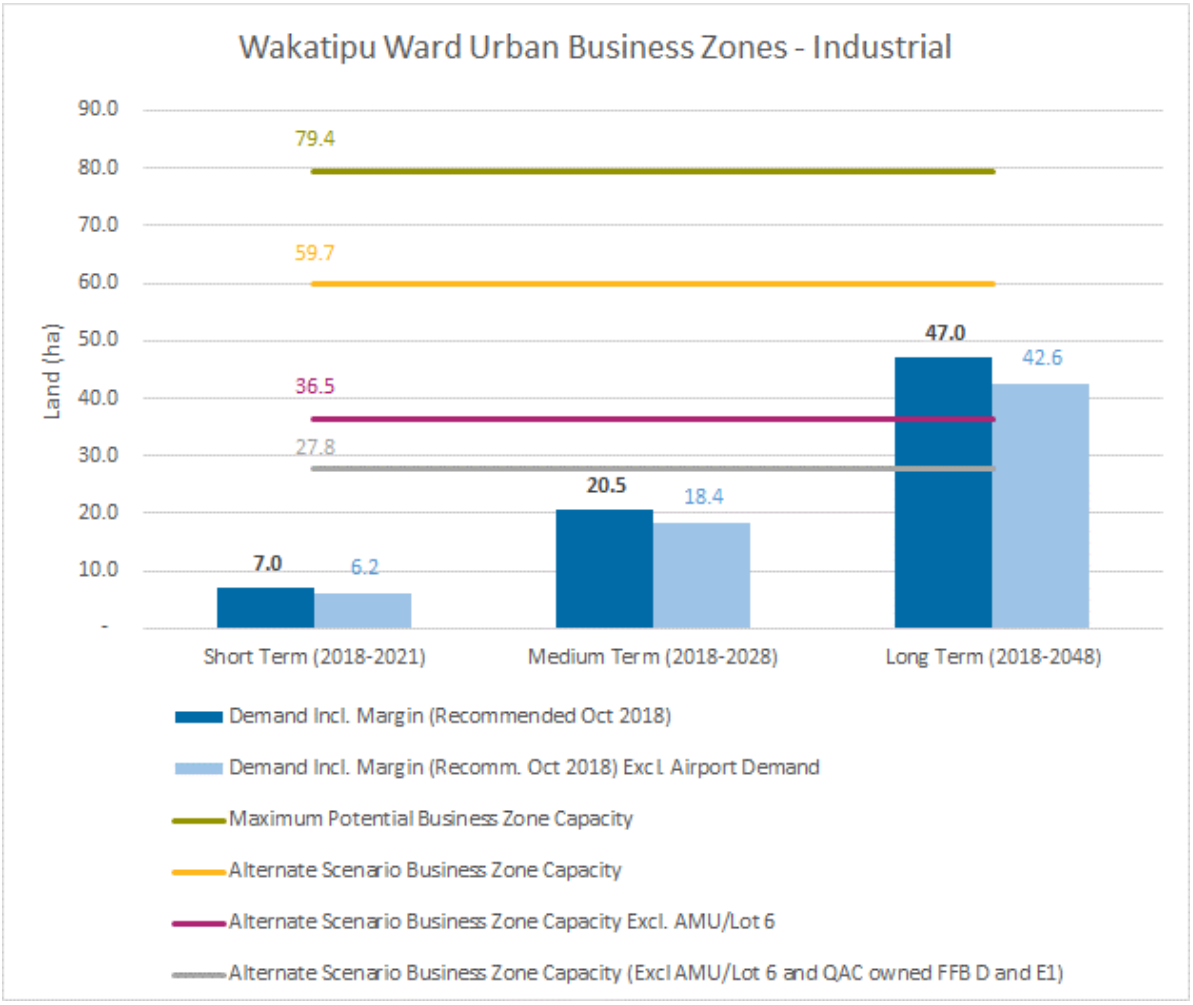


Figure 12[16] shows that if this QAC owned vacant capacity cannot be relied upon to meet general market demand for industrial type development, then the long-term shortfall of industrial capacity in the Wakatipu Ward would be worse by 2048 (-14.8 ha).

The overall conclusion of this interim update is that the Decisions Version of Stages 1 and 2 of the PDP combined with other recent zoning changes and remaining ODP zones, countered by development of

[15] M.E has assumed that 100% of QAC vacant capacity in Precinct D is allocated to industrial development and 50% of the QAC vacant capacity in Precinct E1 is allocated to industrial development.

[16] For interpretation of this graph, the green and yellow capacity lines can be compared with the dark blue bar. The pink and grey capacity lines can be compared with the light blue bar. The latter is the key finding raised above.

vacant capacity over the past two years, may not address sufficient long-term capacity for industrial land use development in the Wakatipu Ward. This is based on the assumptions applied in the model, including M.E's Alternative Capacity Scenario. While the numbers have adjusted slightly now that they have been properly modelled, this is consistent with the conclusions reached in evidence on Topic 2.

In the Wanaka Ward, the capacity for industrial land use development is estimated to be sufficient to cater for projected long-term demand under the Alternative Capacity Scenario. For clarity, this includes an estimated 5.63 ha of land in the Tussock Rise area (aka Industrial B – Connell Terrace Precinct) allocated to industrial capacity in the Alternative Capacity Scenario. Should this land be excluded, it would not create a shortfall of industrial capacity by 2048 based on the assumptions modelled. The cumulative effect of this proposed submission and any other changes to GIZ areas may result in a different conclusion.

5 Stage 3 PDP Notified Zoning Impacts

Stage 3 of the PDP introduces a range of changes to urban environment business enabled zoning compared to the ODP and PDP (Decisions Version on Stages 1 and 2) zoning framework evaluated above. The key changes that M.E has taken into consideration include:

1. The ODP Industrial A and B zones are rezoned to General Industrial Zone (GIZ). Included in this, the structure plan for the Tussock Rise area (Connell Terrace in the modelling) no longer distinguishes Precinct A or B. In the BDCA 2017 model, including the update above, the small precinct B was treated as not enabling business floorspace development. Thus, under the GIZ there is a slightly greater area of developable land in this location.
2. New areas of GIZ are zoned on Ballantyne Road and at the end of Glenda Drive (previously zoned Rural and AMU Zone in the BDCA model respectively)[17].
3. The Ballantyne Road Mixed Use Special Zone is rezoned for Active Sports and Recreation. This removes this land from enabling business development. Under the Alternate Capacity Scenario assumptions, this is a loss of vacant industrial capacity from precincts C and D and a loss of commercial capacity from precincts B and E.
4. The Three Parks Special Zone is changed to existing (and proposed) district plan zones with associated changes to the location and type of business enabled zoning.
5. The Rural Visitor Zone in Arthurs Point is changed to existing district plan zones – namely MDR – Visitor Accommodation Sub-Zone with a reduction in business enabled zone area associated with rezoning to Rural (and ONL) and Building Restriction Areas.

The net effect of these Stage 3 changes in terms of currently estimated vacant developable land area (and not total zone area) is summarised in the Figure 13. This table compares vacant land area under Stage 3 against the new baseline – being the ODP and PDP (Decisions Version on Stages 1 and 2 plus other recent zoning changes). The green column on the far right quantifies the changes at a zone level.

Figure 13 shows, for example:

- the removal of 37.93 ha of estimated vacant business land in the Three Parks Special Zone across various structure plan precincts as agreed by Council for the BDCA 2017. This is offset by increases in other district plan zones including the combination of the notified Three Parks

[17] We note that Stage 3 also includes some boundary adjustments of the GIZ mainly on the river side of Glenda Drive. As these changes are not expected to have materially changed vacant capacity on these properties, they are not considered further in M.E's BDCA model.

Commercial and Visitor Accommodation Sub-Zone (+13.86 ha), the notified BMU Zone (+11.32 ha) and a share of the notified GIZ (5.44 ha)[18].

- The loss of 14.9 ha of vacant business land in the Ballantyne Road Mixed Use Special Zone.
- The loss of 11.61 ha of vacant capacity in the Rural Visitor Zone in Arthurs Point, only partially offset by a 5.99 ha increase in the MDR - Visitor Accommodation Sub-zone.
- The removal of vacant capacity in the ODP Industrial A and B Zones (-13.4 ha combined). This is partly offset by the increase in notified GIZ vacant capacity thanks to the up-zoning of the rural land on Ballantyne Road (an estimated +8.36 ha of remaining developable vacant land area – i.e. excluding estimated road area and currently developed sites).

Because there are transfers between special zones and non-special zones as a result of Stage 3, the key figure is the net change at the district level. In the model, the Stage 3 zoning reduces vacant developable land area in business enabled zones by -19.12 ha across the district. The changes in Arthurs Point account for 29% of this net loss. Another key driver of this net loss is the changes modelled in Three Parks. The following two maps in Figure 14 (simplified versions for the purpose of this addendum report) show that the Stage 3 zoning for Three Parks removes an area of Commercial Core, Deferred Commercial Core and the Tourism precinct. This is partially offset but the specific inclusion of a Visitor Accommodation Sub-zone.

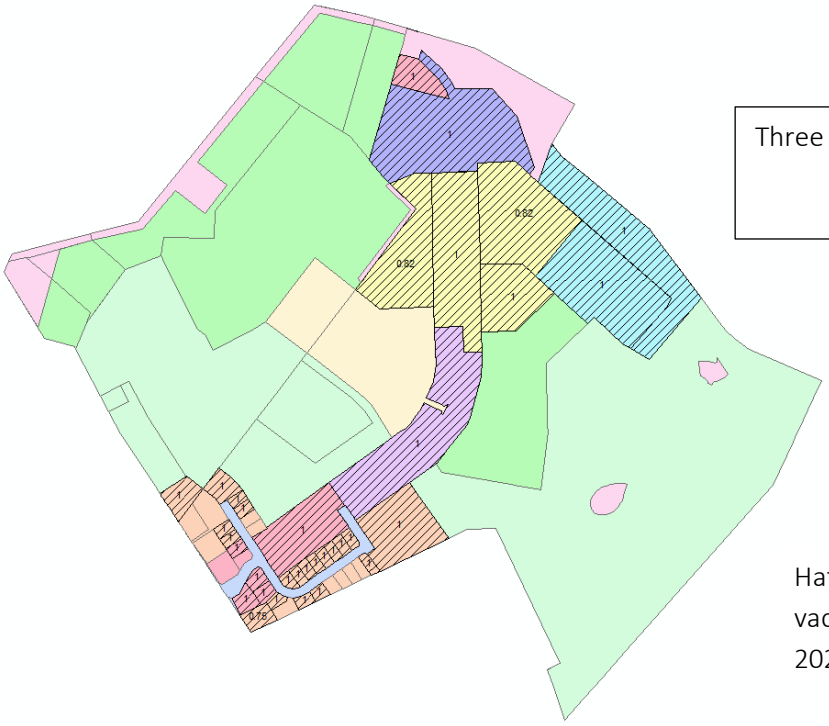
[18] The BDCA 2017 did not explicitly recognise business capacity in the MDR and HDR zones unless they also included a business sub-zone such as VASZ or town centre transition.

Figure 13 - Developable Vacant Capacity - January 2020 Baseline and Stage 3 Zone Changes

Zoning Scenario		January 2020 Zone (Consolidated District Plan Plus Other Changes)	January 2020 Zone (Consolidated District Plan Plus Other Changes and Proposed Stage 3)	
Area Calc Scenario		January 2020 Area (SQM)	January 2020 Area (SQM)	
Ground Truthing Date Scenario		January 2020 Vacant	January 2020 Vacant	
Ground Truthing Date Scenario		January 2020 Vacant Share	January 2020 Vacant Share	
District Plan Zone	District Plan Zone & Sub-Zone (Combo)	Final Vacant Developable Business Land (Est. Net)	Final Vacant Developable Business Land (Est. Net)	Change in Vacant Capacity Stage 3 Compared to Decisions Version and Other Changes
Zones Excluding Special Zones				
Airport Mixed Use Zone		23.2	23.1	- 0.09
Business (Operative)		0.4	0.4	-
Business Mixed Use		10.5	21.8	11.32
Industrial A (Operative)		1.9	-	- 1.88
Industrial B (Operative)		11.5	-	- 11.51
Local Shopping Centre		4.5	4.5	-
Low Density Residential		13.3	13.3	-
Medium Density Residential		0.1	6.1	5.99
Rural Visitor (Arthurs Point only)		11.6	-	- 11.61
Rural (Luggate Industrial Overlay only)		-	-	-
Town Centre Arrowtown		-	-	-
Town Centre Queenstown		5.3	5.3	-
Town Centre Wanaka		0.9	0.9	-
Township (Operative)		1.0	1.0	-
General Industrial	*Stage 3 only*	-	27.6	27.63
Three Parks	*Stage 3 only*	-	13.9	13.86
TOTAL		84.2	117.9	33.70
Special Zones				
Special Zone	Special Zone - Ballantyne Road Mixed Use	14.9	-	- 14.90
Special Zone	Special Zone - Northlake	1.1	1.1	-
Special Zone	Special Zone - Frankton Flats A	0.2	0.2	-
Special Zone	Special Zone - Frankton Flats B	33.1	33.1	-
Special Zone	Special Zone - Remarkables Park	61.2	61.2	-
Special Zone	Special Zone - Shotover Country	0.2	0.2	-
Special Zone	Special Zone - Three Parks	37.9	-	- 37.93
Special Zone	Coneburn Industrial	19.2	19.2	-
Special Zone	Special Zone - Jacks Point	19.9	19.9	-
TOTAL		187.6	134.7	- 52.82
TOTAL URBAN ENVIRONMENT		271.8	252.7	- 19.12

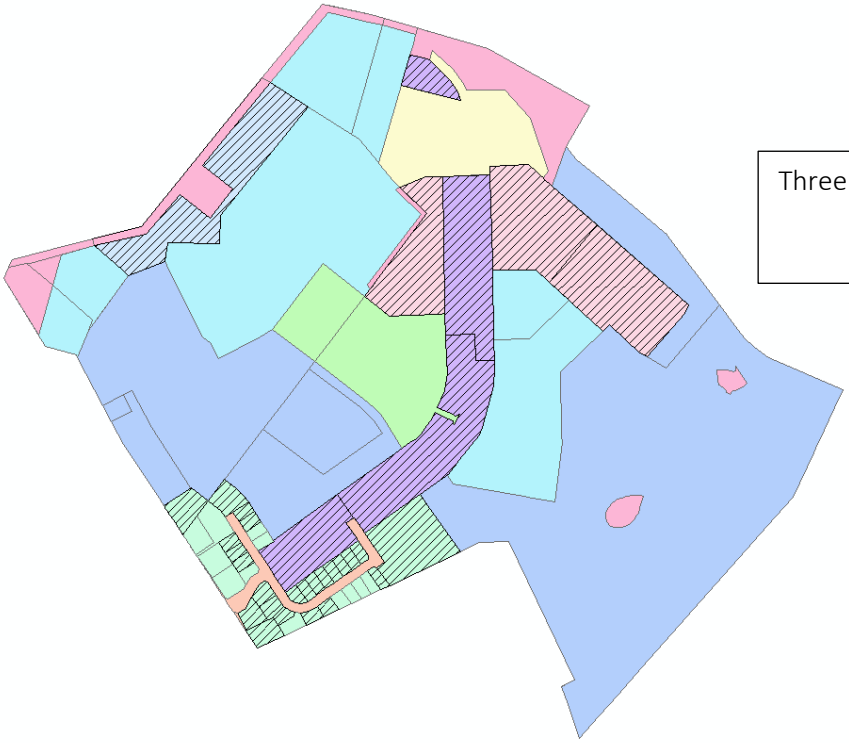
Source: M.E QLD Business Capacity Model Feb 2020. Visitor Accommodation Sub-Zones included in underlying residential zones.
Vacant business land in special zones associated with business enabled precincts only. Rural Zone relates only to Luggate Rural Industrial Sub-Zone.
Rural Visitor relates only to Arthurs Point unless showing results under Stage 3 Zoning (other Rural Visitor Zones are outside the defined urban environment).

Figure 14 – Operative versus Stage 3 Zoning and Vacant Business Enabled Capacity in Three Parks



Three Parks – Operative

Hatched areas represent vacant sites as at January 2020



Three Parks – Stage 3

5.1 Implications of Stage 3 for Maximum Capacity Scenario

Figure 15 summarises the vacant developable land area by broad category of land use under the Maximum Capacity Scenario under stage 3 notified zoning. Total vacant land area in zones enabling industrial type development/building typologies in the Wanaka Ward sums to 38.9 ha spread across the BMU Zone and the GIZ. We note, this is a slight increase on this scenario compared to the ODP and PDP (Decisions Version on Stages 1 and 2 plus other recent zone changes) updated baseline which summed to 36.6 ha. Maximum vacant capacity for commercial type development/building typologies is 59.3 ha, down from 72.9 ha in the updated baseline model. Maximum vacant retail capacity in the Wanaka Ward is up as a result of the Stage 3 changes.

In the Wakatipu Ward, total Maximum vacant land area in zones enabling industrial type development/building typologies sums to 79.5 ha. This is a very minor increase over the same scenario in the updated baseline model (79.4 ha). Vacant commercial capacity is down slightly under Stage 3 zoning in this ward and retail capacity is up slightly.

Figure 15 – Maximum Vacant Capacity Scenario by Category and Ward – Stage 3 Zoning (January 2020)

Zone	Wanaka Ward Commercial	Wanaka Ward Industrial	Wanaka Ward Retail	Wakatipu Ward Commercial	Wakatipu Ward Industrial	Wakatipu Ward Retail
Airport Mixed Use Zone	-	-	-	-	23.1	-
Arrowtown Residential Historic Management Zone	-	-	-	-	-	-
Business (Operative)	-	-	-	0.4	0.4	-
Business Mixed Use	11.8	11.8	11.8	10.0	10.0	10.0
High Density Residential	-	-	-	-	-	-
High Density Residential (Operative)	-	-	-	-	-	-
Industrial A (Operative)	-	-	-	-	-	-
Industrial B (Operative)	-	-	-	-	-	-
Large Lot Residential	-	-	-	-	-	-
Local Shopping Centre	1.8	-	1.8	2.7	-	2.7
Low Density Residential	1.6	-	-	11.7	-	-
Medium Density Residential	0.1	-	0.1	-	-	-
Rural Visitor	-	-	-	-	-	-
Rural	-	-	-	-	-	-
Town Centre Arrowtown	-	-	-	-	-	-
Town Centre Queenstown	-	-	-	5.3	-	5.3
Town Centre Wanaka	0.9	-	0.9	-	-	-
Township (Operative)	1.0	-	0.5	-	-	-
General Industrial	27.1	27.1	27.1	0.6	0.6	0.6
Three Parks Commercial	9.7	-	9.7	-	-	-
Three Parks Visitor Accommodation Subzone	4.2	-	-	-	-	-
Sub-Total Non-Special Zones	58.22	38.9	51.9	30.6	34.1	18.5
Special Zone - Arrowtown South	-	-	-	-	-	-
Special Zone - Ballantyne Road Mixed Use	-	-	-	-	-	-
Special Zone - Northlake	1.1	-	1.1	-	-	-
Special Zone - Frankton Flats A	-	-	-	0.2	-	0.2
Special Zone - Frankton Flats B	-	-	-	32.6	25.7	9.1
Frankton Flats B - Land Swap	-	-	-	0.5	0.5	-
Special Zone - Meadow Park	-	-	-	-	-	-
Special Zone - Penrith Park	-	-	-	-	-	-
Coneburn Industrial	-	-	-	19.2	19.2	19.2
Special Zone - Quail Rise	-	-	-	-	-	-
Special Zone - Remarkables Park	-	-	-	61.2	-	12.6
Special Zone - Shotover Country	-	-	-	0.2	-	0.2
Special Zone - Three Parks	-	-	-	-	-	-
Special Zone - Jacks Point	-	-	-	19.9	-	6.2
Sub-Total Special Zones	1.1	-	1.1	133.7	45.5	47.5
Total Urban Business Enabled Zones	59.3	38.9	52.9	164.3	79.5	66.0

Source: M.E QLD Business Capacity Model Feb 2020. Visitor Accommodation Sub-Zones included in underlying residential zones.
Vacant business land in special zones associated with business enabled precincts only. Rural Zone relates only to Luggate Rural Industrial Sub-Zone.
Rural Visitor relates only to Arthurs Point unless showing results under Stage 3 Zoning (other Rural Visitor Zones are outside the defined urban environment).
Wakatipu Ward includes Arrowtown Ward.

5.2 Implications of Stage 3 for Alternative Capacity Scenario

The following table (Figure 16) summarises the vacant developable land area by broad category of land use under the Alternative Capacity Scenario. Additional assumptions required for this scenario include allocation of all vacant capacity in the GIZ to industrial building typologies (due to the narrower focus for anticipated activities in the zone). This drives minor changes in the figures because under the ODP and PDP (Decisions Version on Stages 1 and 2) zoning rules in the model, vacant Industrial A capacity in Arrowtown and Glenda Drive was previously allocated to commercial development based on recent trends, and the

very small area of vacant capacity in the Industrial B Connell Terrace (Tussock Rise) Precinct A was also allocated to commercial land use. All other rezoning in Stage 3 to existing district plan zones applies consistent allocations.

Under this Alternate Capacity Scenario, total vacant land area in zones enabling industrial type development/building typologies in the Wanaka Ward sums to 27.1 ha (out of a maximum capacity of 38.9 ha). This is a slight (0.07 ha) decrease over the status quo (updated baseline). Vacant commercial capacity sums to 31.9 ha (out of a maximum capacity of 59.5 ha). Under the status quo, this was higher at 45.4 ha. Vacant retail capacity sums to 25.8 ha (out of a maximum capacity of 53.2 ha). Under the status quo, this was higher at 37.9 ha.

Under this Alternate Capacity Scenario, total vacant land area in zones enabling industrial type development/building typologies in the Wakatipu Ward sums to 60.2 ha (out of a maximum capacity of 79.5 ha). This is a slight (0.5 ha) increase over the status quo. Vacant commercial capacity sums to 126.9 ha (out of a maximum capacity of 164.3 ha). Under the status quo, this was higher at 138.9ha. Vacant retail capacity sums to 40.6 ha (out of a maximum capacity of 66.0 ha). No change from the status quo.

Figure 16 – Alternate Vacant Capacity Scenario by Category and Ward – Stage 3 Zoning (January 2020)

Zone	Wanaka Ward Commercial	Wanaka Ward Industrial	Wanaka Ward Retail	Wakatipu Ward Commercial	Wakatipu Ward Industrial	Wakatipu Ward Retail
Airport Mixed Use Zone	-	-	-	-	23.1	-
Arrowtown Residential Historic Management Zone	-	-	-	-	-	-
Business (Operative)	-	-	-	0.4	-	-
Business Mixed Use	11.8	-	11.8	10.0	-	10.0
High Density Residential	-	-	-	-	-	-
High Density Residential (Operative)	-	-	-	-	-	-
Industrial A (Operative)	-	-	-	-	-	-
Industrial B (Operative)	-	-	-	-	-	-
Large Lot Residential	-	-	-	-	-	-
Local Shopping Centre	1.5	-	1.8	2.7	-	2.7
Low Density Residential	1.6	-	-	11.7	-	-
Medium Density Residential	0.1	-	-	-	-	-
Rural Visitor	-	-	-	-	-	-
Rural	-	-	-	-	-	-
Town Centre Arrowtown	-	-	-	-	-	-
Town Centre Queenstown	-	-	-	5.3	-	5.3
Town Centre Wanaka	0.9	-	0.9	-	-	-
Township (Operative)	1.0	-	0.5	-	-	-
General Industrial	-	27.1	-	-	0.6	-
Three Parks Commercial	9.7	-	9.7	-	-	-
Three Parks Visitor Accommodation Subzone	4.2	-	-	-	-	-
Sub-Total Non-Special Zones	30.8	27.1	24.7	30.0	23.7	18.0
Special Zone - Arrowtown South	-	-	-	-	-	-
Special Zone - Ballantyne Road Mixed Use	-	-	-	-	-	-
Special Zone - Northlake	1.1	-	1.1	-	-	-
Special Zone - Frankton Flats A	-	-	-	0.2	-	0.2
Special Zone - Frankton Flats B	-	-	-	15.5	17.0	3.5
Frankton Flats B - Land Swap	-	-	-	0.3	0.3	-
Special Zone - Meadow Park	-	-	-	-	-	-
Special Zone - Penrith Park	-	-	-	-	-	-
Coneburn Industrial	-	-	-	-	19.2	-
Special Zone - Quail Rise	-	-	-	-	-	-
Special Zone - Remarkables Park	-	-	-	61.2	-	12.6
Special Zone - Shotover Country	-	-	-	-	-	0.2
Special Zone - Three Parks	-	-	-	-	-	-
Special Zone - Jacks Point	-	-	-	19.7	-	6.2
Sub-Total Special Zones	1.1	-	1.1	96.8	36.5	22.7
Total Urban Business Enabled Zones	31.9	27.1	25.8	126.9	60.2	40.6

Source: M.E QLD Business Capacity Model Feb 2020. Visitor Accommodation Sub-Zones included in underlying residential zones.
Vacant business land in special zones associated with business enabled precincts only. Rural Zone relates only to Luggate Rural Industrial Sub-Zone.
Rural Visitor relates only to Arthurs Point unless showing results under Stage 3 Zoning (other Rural Visitor Zones are outside the defined urban environment).
Wakatipu Ward includes Arrowtown Ward.

5.3 Implications of Stage 3 for Sufficiency

The demand projection is the same as modelled previously for the update (October 2018 Growth Projection and 2018 base year). The key change to assess therefore is the vacant capacity by category associated with Stage 3 notified zone changes. For the Maximum Capacity Scenario (Figure 17), the Stage 3 changes do not alter the conclusions of sufficient long-term vacant land capacity to cater for projected demand (inclusive of a margin). The same applies for the GFA results (for brevity not included here).

Figure 17 – Stage 3 Land Sufficiency by Ward and Category – Maximum Capacity Scenario

Category by Ward	Cumulative Land Demand (Ha)			Total Vacant Business Zone Land 2020 (ha) *	Sufficiency		
	Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)		Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)
Commercial							
Wakatipu	6.4	17.7	37.9	170.3	Sufficient	Sufficient	Sufficient
Wanaka	2.1	5.6	11.0	59.3	Sufficient	Sufficient	Sufficient
TOTAL	**8.5**	**23.3**	**48.9**	**229.5**	Sufficient	Sufficient	Sufficient
Retail							
Wakatipu	2.8	7.9	17.3	66.0	Sufficient	Sufficient	Sufficient
Wanaka	1.1	3.0	5.9	52.9	Sufficient	Sufficient	Sufficient
TOTAL	**3.9**	**10.9**	**23.2**	**118.9**	Sufficient	Sufficient	Sufficient
Industrial							
Wakatipu	7.0	20.5	47.0	79.5	Sufficient	Sufficient	Sufficient
Wanaka	1.8	5.3	12.3	38.9	Sufficient	Sufficient	Sufficient
TOTAL	**8.8**	**25.8**	**59.3**	**118.4**	Sufficient	Sufficient	Sufficient

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E

*Projected demand and current capacity within core business enabled zones in defined urban environment only. Wakatipu Ward includes both Queenstown and Arrowtown Wards. * Maximum capacity assuming no uptake by other enabled land uses. Will overstate capacity where other land uses take precedent.*

Capacity Scenario: ***January 2020 Zone (Consolidated District Plan Plus Other Changes and Proposed Stage 3)***

For the Alternative Capacity Scenario (Figure 18) that removes the double counting of vacant capacity across the land use categories, the Stage 3 changes do not alter the conclusions of sufficient long-term vacant land capacity to cater for projected demand (inclusive of a margin).

Figure 18 – Stage 3 Land Sufficiency by Ward and Category – Alternative Capacity Scenario

Category by Ward	Cumulative Land Demand (Ha)			Total Vacant Business Zone Land 2020 (ha) *	Sufficiency		
	Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)		Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)
Commercial							
Wakatipu	6.4	17.7	37.9	132.8	Sufficient	Sufficient	Sufficient
Wanaka	2.1	5.6	11.0	31.9	Sufficient	Sufficient	Sufficient
TOTAL	**8.5**	**23.3**	**48.9**	**164.7**	Sufficient	Sufficient	Sufficient
Retail							
Wakatipu	2.8	7.9	17.3	40.6	Sufficient	Sufficient	Sufficient
Wanaka	1.1	3.0	5.9	25.8	Sufficient	Sufficient	Sufficient
TOTAL	**3.9**	**10.9**	**23.2**	**66.4**	Sufficient	Sufficient	Sufficient
Industrial							
Wakatipu	7.0	20.5	47.0	60.2	Sufficient	Sufficient	Sufficient
Wanaka	1.8	5.3	12.3	27.1	Sufficient	Sufficient	Sufficient
TOTAL	**8.8**	**25.8**	**59.3**	**87.3**	Sufficient	Sufficient	Sufficient

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E

*Projected demand and current capacity within core business enabled zones in defined urban environment only. Wakatipu Ward includes both Queenstown and Arrowtown Wards. * Overlap in capacity has been removed, refer to the scenario assumptions in appendices.*

Capacity Scenario: ***January 2020 Zone (Consolidated District Plan Plus Other Changes and Proposed Stage 3)***

When we remove both demand for Air Transport Services in the Wakatipu Ward and the vacant capacity in the airport area (AMU/Rural Zone and Lot 6 for the purpose of this model), the Stage 3 changes do not alter the conclusions of insufficient long-term vacant industrial capacity in the Wakatipu Ward to meet projected industrial demand (inclusive of a margin). This is summarised in Figure 19.

Figure 19 – Stage 3 Land Sufficiency by Ward and Category – Alternate Capacity Scenario - Excluding AMU Zone Capacity and Wakatipu Ward Air Transport Services Sector Demand

Category by Ward	Cumulative Land Demand (Ha)			Total Vacant Business Zone Land 2020 (ha) *	Sufficiency		
	Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)		Short Term (2018-2021)	Medium Term (2018-2028)	Long Term (2018-2048)
Commercial							
Wakatipu	6.4	17.7	37.9	132.8	Sufficient	Sufficient	Sufficient
Wanaka	2.1	5.6	11.0	31.9	Sufficient	Sufficient	Sufficient
TOTAL	**8.5**	**23.3**	**48.9**	**164.7**	Sufficient	Sufficient	Sufficient
Retail							
Wakatipu	2.8	7.9	17.3	40.6	Sufficient	Sufficient	Sufficient
Wanaka	1.1	3.0	5.9	25.8	Sufficient	Sufficient	Sufficient
TOTAL	**3.9**	**10.9**	**23.2**	**66.4**	Sufficient	Sufficient	Sufficient
Industrial							
Wakatipu	6.2	18.4	42.6	37.1	Sufficient	Sufficient	Insufficient
Wanaka	1.8	5.3	12.3	27.1	Sufficient	Sufficient	Sufficient
TOTAL	**8.0**	**23.7**	**54.9**	**64.1**	Sufficient	Sufficient	Sufficient

Source: QLD EFM 2018, 2020 Update (QLDC Recommended Oct 2018 Population, High Tourism, High Other), M.E

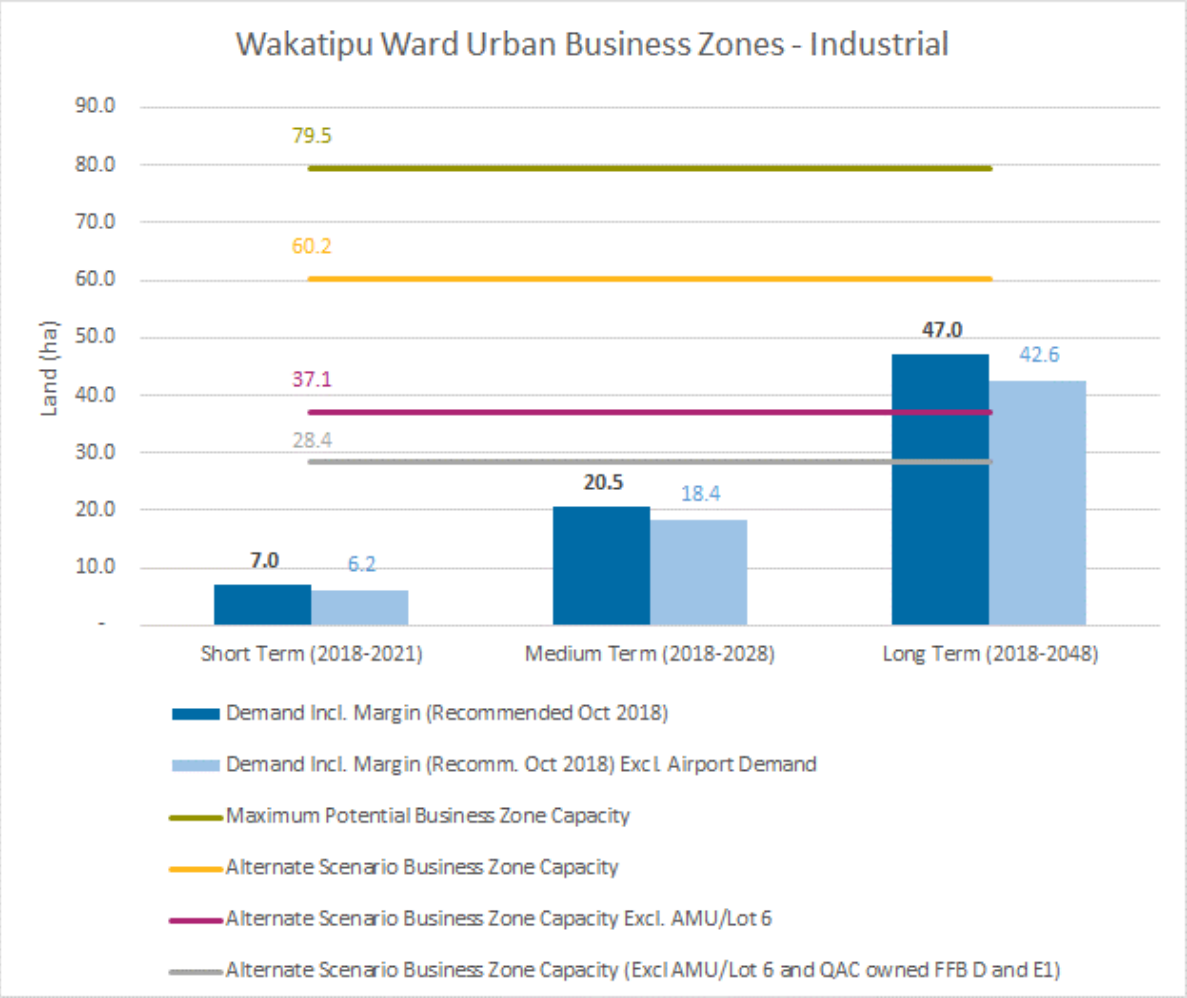
*Projected demand and current capacity within core business enabled zones in defined urban environment only. Wakatipu Ward includes both Queenstown and Arrowtown Wards. * Overlap in capacity has been removed, refer to the scenario assumptions in appendices. Queenstown Airport demand & capacity excluded.*

Capacity Scenario: ***January 2020 Zone (Consolidated District Plan Plus Other Changes and Proposed Stage 3)***

NOTE - EXCLUDES INDUSTRIAL AND COMMERCIAL DEMAND FOR AIR TRANSPORT SERVICES IN WAKATIPU WARD AND CAPACITY IN THE AIRPORT MIXED USE

Nor do the Stage 3 changes alter that outcome when QAC land is also removed from vacant industrial capacity in the Alternative Capacity Scenario, as shown below for Wakatipu Ward (Figure 20).

Figure 20 – Stage 3 Land Sufficiency by Ward and Category – Alternate Capacity Scenario - Excluding AMU Zone Capacity and Wakatipu Ward Air Transport Services Sector Demand and QAC Industrial Capacity in FFB Zone



6 Interim BDCA Update – Closing Comments

If anything in this addendum report is not clear, please don't hesitate to contact M.E. There is a lot of detail in the models that is not necessarily shown here, and we are happy to explain the modelling further. The BDCA 2017 report should be the first point of reference for assumptions applied to most zones and special zone/structure plan precincts (in particular the appendices of that report contain a lot of the detailed assumptions that drive the model).

All of the vacant capacity changes discussed in this addendum report are also available in map form (GIS). We have not included the maps to save time. In due course, M.E will supply the vacant parcel GIS data to Council as we did for the BDCA 2017 work.

M.E has taken as much care as possible to make the model accurate. However, it is important to keep in mind that it is just a model and the result are estimates/approximates only. It is not always possible to replicate zoning, structure plans and parcel areas 100% as shown on Council's GIS system. Modelling structure plan area was especially challenging in the BDCA 2017, and the same issue applies here as there are no Council GIS files available in those zones.

Appendix C

Queenstown Lakes District Industrial MCA Framework

Appendix C – *Queenstown Lakes District Industrial MCA Framework (BDCA 2017 updated to include Submissions 3349 and 3357)*

	Range	1 to 20	1 to 10	1 to 20	1 to 15	1 to 20	1 to 5	1 to 10	1 to 15	1 to 5	1 to 5	1 to 10	1 to 5
	Maximum score	20	10	20	15	20	5	10	15	5	5	10	5
MCA Framework Final	TOTAL (In decending rank order)	Access to major Road / transport routes; good transport access, especially road/motorway. Freight/heavy vehicle focussed.	Proximity to Queenstown Airport	Flat land, large land parcel, contiguous sites	Services - Waters Infrastructure	Area has potential for co-location or clustering with associated business activities or is contiguous with existing business land zoned for industrial activities	Single land ownership and potential for large sites	Proximity to labour	Ability to buffer adverse effects from residential and sensitive activities, distance from sensitive land uses	Low level of traffic congestion in vacinity	Exposure / profile / visibility	Existing or proposed public transport	Access to complementary / supporting business services (Industrial sector suppliers)
Frankton Flats	115.5	17	10	18	10.5	15	4	10	10	2	5	10	4
Remarkables Park	113.5	16	10	18	10.5	15	5	10	10	3	4	8	4
Frankton	94.5	16	10	9	10.5	10	1	10	8	1	5	10	4
Wanaka Central	91.5	10	3	17	10.5	15	4	9	11	3	3	2	4
Wanaka North	87	10	3	11	15	15	3	9	8	4	3	2	4
Warren Park	77.5	8	6.5	2	15	10	1	8	10	3	3	6	5
Jacks Point	73	11	6	12	12	4	4	3	6	5	2	6	2
Quail Rise	70	12	8	7	15	4	1	3	6	5	1	6	2
Lake Hayes	68.5	10	6.5	7	15	4	1	4	7	5	2	4	3
Lake Hayes Estate	67.5	10	7.5	7	15	4	1	3	6	5	1	6	2
Shotover Country	67.5	10	7.5	7	15	4	1	3	6	5	1	6	2
Frankton Arm	67	10	8.5	1	10.5	8	1	8	4	1	3	8	4
Queenstown Central	65	6	7	1	15	5	1	10	2	1	5	8	4
Rest of Upper Clutha Valley	62.5	11	1	15	7.5	2	1	1	15	5	1	2	1
Queenstown East	61.5	6	7.5	1	15	2	1	10	2	1	4	8	4
Queenstown Bay	61.5	6	6.5	2	15	2	1	10	2	1	4	8	4
Albert Town	61	12	3	8	12	6	1	6	3	4	2	2	2
Luggate Locality	61	13	1.5	6	10.5	5	1	1	12	5	3	2	1
Arrowtown	60	8	6	2	12	7	1	5	4	2	4	6	3
Kelvin Heights	59.5	10	7.5	3	15	2	2	5	2	3	2	6	2
Arthurs Point	56	6	6	1	12	3	1	3	9	5	2	6	2
Sunshine Bay	55.5	6	5.5	1	15	2	1	8	3	3	2	6	3
Wanaka Waterfront	54	8	3	2	12	5	1	9	2	4	2	2	4
Wanaka West	51	8	3	2	9	4	1	8	4	5	2	2	3
Wakatipu Basin	50	8	6.5	6	7.5	5	1	1	6	5	1	2	1
Kingston	45	10	1	5	9	1	1	1	8	5	1	2	1
Queenstown Hill	44	1	7	1	15	1	1	7	3	3	2	2	1
Hawea Locality	43.5	6	1	2	10.5	3	1	2	8	5	2	2	1
Cardrona	38	5	3.5	1	7.5	2	2	1	6	4	3	2	1
Outer Wakatipu	30	2	2.5	3	7.5	1	2	1	2	5	1	2	1
Submission 3349	71.5	12	4	14	7.5	7	5	1	12	5	1	2	1
Submission 3357	73.5	12	4	15	7.5	7	5	1	12	5	2	2	1

Source: M.E, QLDC