

Before an Independent Hearings Panel
appointed by the Waimakariri District Council

under: the Resource Management Act 1991

in the matter of: Submissions and further submissions in relation to the
proposed Waimakariri District Plan, Variation 1 and
Variation 2

and: Hearing Stream 1: Part 1 General Matters, Definitions,
Strategic Directions and Urban Form and Development.

and: **Christchurch International Airport Limited**
Submitter 254

Statement of Evidence of Natalie Hampson

Dated: 1 May 2023

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STATEMENT OF EVIDENCE OF NATALIE HAMPSON

INTRODUCTION

- 1 My full name is Natalie Diane Hampson. I am a Director at Market Economics Limited. I have held this position since mid-2019. I hold a Master of Science degree in Geography from the University of Auckland (first class honours).
- 2 I have worked in the field of economics for over 20 years for commercial and public sector clients. I joined Market Economics in 2001, and I have specialised in studies relating to 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.
- 3 Of specific relevance to this evidence, Market Economics has comprehensive experience in carrying out Economic Impact Assessments (*EIA*), applying best practice methodologies to studies across New Zealand. This includes the EIA of major infrastructure assets (e.g. Auckland Airport (2007), Queenstown Airport (2008, 2009, 2014), Hawke's Bay Airport (2014), the national airport sector (2013) as well as Ports of Auckland (2004, 2011) and a range of other regionally or nationally significant infrastructure such as wharves and other marine infrastructure, wind farms, and cycling/walking trails). We have also specialised in EIAs of major events, government funding, and large scale residential and commercial developments.
- 4 I have personally been involved in or lead a range of EIAs in New Zealand, including but not limited to several studies on the America's Cup Defences/Challenges, Government funding of Team New Zealand with associated tax implications (2008, 2014), the Rugby World Cup (2011), Silverlight Studios (2021), a range of residential developments including for Fast Track consents, and now Christchurch Airport (2023).

Code of Conduct

- 5 Although this is not an Environment Court hearing, I note that in preparing my evidence I have reviewed the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I have complied with it in preparing my evidence on technical matters. I confirm that the technical matters on which I gave evidence are within my area of expertise, except where relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from my opinions expressed.

Scope of evidence

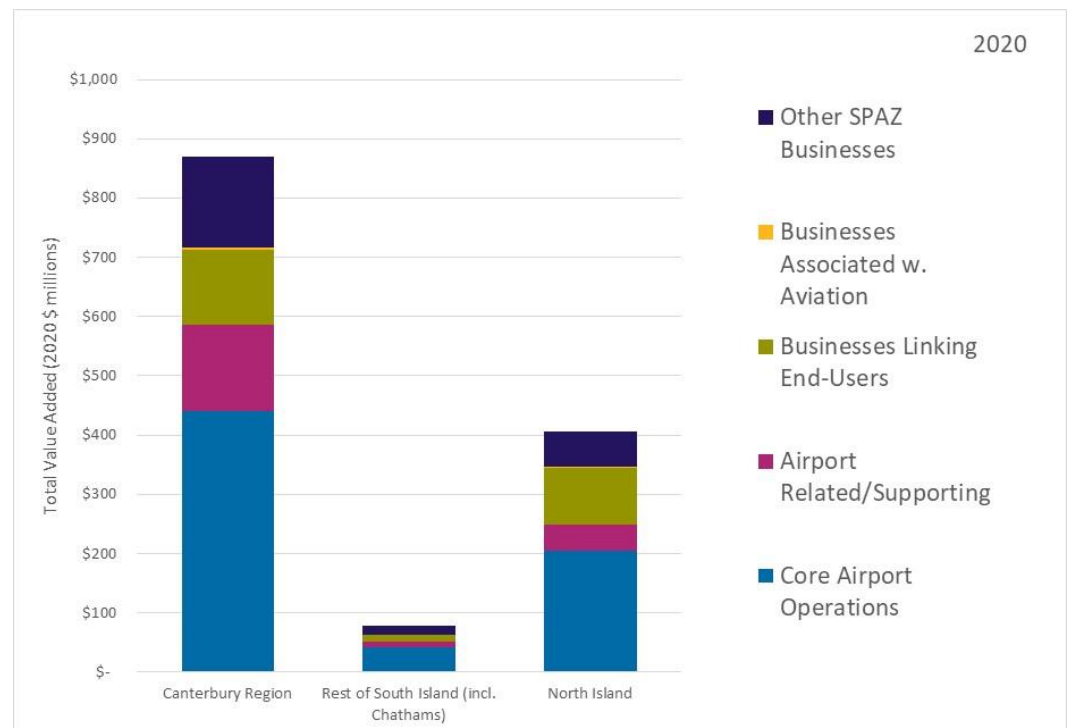
- 6 I have been asked to provide evidence on the economic contribution, or significance, of the Christchurch Airport and wider Special Purpose Airport Zone (SPAZ) located in Christchurch City on behalf of Christchurch International Airport Limited (CIAL). The purpose is to provide the economic context against which the relief sought by CIAL in relation to the proposed Waimakariri District Plan and Variation 1 can be assessed.
- 7 My evidence draws upon a detailed EIA of the Christchurch Airport being carried out by Market Economics. At the time of preparing this evidence, that project was on-going. While the output of that project will be a standalone report, it is not yet complete. This evidence therefore draws on selected provisional results which may still be subject to further minor changes as the modelling is refined and completed.
- 8 This brief of evidence addresses:
- 8.1 The EIA approach and interpretation of results.
 - 8.2 The economic contribution of Christchurch Airport.
 - 8.3 The economic contribution facilitated by Christchurch Airport including tourism, freight and other business services.
 - 8.4 Economic risks if Christchurch Airport operations are constrained.

Summary and conclusions

- 9 Market Economics is in the process of completing a detailed EIA of the Christchurch Airport. Provisional results are summarised in Figure 1 below and show that in the year ending February 2020:
- 9.1 Core airport operations (which includes CIAL and other airline activity), as well as businesses that support or are related to airport operations, that link the Airport with end-users (passengers and freight), and are associated with aviation contribute \$₂₀₂₀1.13 billion in value added and 8,900 additional jobs to the New Zealand economy;
 - 9.2 Other businesses in the SPAZ that benefit from the Airport environs but are not considered airport dependent contribute \$₂₀₂₀227 million in value added and 1,776 additional jobs to the New Zealand economy;
 - 9.3 The total direct and facilitated contribution of the Airport is therefore \$₂₀₂₀1.35 billion in value added and 10,680 additional jobs to the New Zealand economy (over and above the nearly 8,790 jobs sustained inside the SPAZ);

- 9.4 The majority of this economic contribution is felt within the Canterbury Region;
- 9.5 This economic contribution is conservative as it does not yet include the significant contribution that the Airport facilitates for tourism and international trade (imports and exports).

Figure 1 – Value Added Contribution of Business Activity Directly Related to, and Facilitated by, Christchurch Airport 2020 (Excluding Facilitated Freight and Tourism Effects)



- 10 The wider economic contributions of Christchurch Airport are sensitive to constraints on core airport operations. Given the strategic and economic significance of Christchurch Airport, it is essential that its safe and efficient operation is not put at risk from inappropriate land uses within its area of operation. From an economics perspective, the Airport needs to be appropriately recognised and prioritised in the proposed Waimakariri District Plan and Variation 1 because of its status as nationally significant infrastructure.

EIA APPROACH AND INTERPREATION

- 11 Airports are essential infrastructure that generate wide ranging social and economic benefits to regions. The speed, connectivity and convenience of air travel is a major factor promoting leisure and business travel and domestic and international freight activity, all of which are facilitated by airports.

- 12 This in turn sustains a range of additional business activity that directly supports or is related to the operation of airports, supports the needs of passengers using airports, or is aviation focussed. As a result, airports become significant hubs for business and employment activity in their immediate environs. However, the economic linkages of core airport and related activities are far reaching, and can be felt nationwide, especially for major metropolitan airports like Christchurch.
- 13 It is important for policy makers to understand the implications of proposed policy changes in economic terms. In this case, to understand the economic role the Christchurch Airport plays in the local and wider economy. Only then can an appropriately informed decision be made on objectives, policies and rules that may have consequential effects on the safe and efficient operation of this nationally significant infrastructure.

EIA Methodology (Input-Output Modelling)

- 14 EIA is a particular economic analysis methodology designed to either understand the economic impacts of proposed investments and development in an economy or the economic contribution of existing activities. The analysis and interpretation undertaken for this evidence reflects a snapshot of the wider airport sector and its linkages at one point in time and is therefore a measure of the Christchurch Airport's contribution to the economy. This differs from economic 'impact'.
- 15 Economic impacts can be assessed in different ways and range from a 'with or without' scenario to a scenario where the effects of a 'next best alternative' is assessed and compared against the reference case. This is not the approach used in this evidence because the regional economy and Christchurch Airport have developed and grown together. It is not possible to revisit business investment and location decisions taken in the knowledge that the Canterbury region does not have an international airport. Instead, the focus is on all activity that depends on, or is facilitated by, the Christchurch Airport, irrespective of whether that activity would still operate in the region (or even New Zealand) if the Airport infrastructure was not there.
- 16 The EIA model is based on Input-Output analysis which captures existing economic relationships. These relationships are expressed in a set of linear equations reflecting all market transactions for consumption in a given time period. A bespoke Multi-Regional Input-Output (*MRIO*) table was developed for this EIA model by Market Economics. This MRIO table covers 109 industry sectors and six economic 'regions' and reflects the sectoral interactions (purchases, sales and other transfers) between sectors (as well as final demand sectors such as households) and between those

regions.¹ The MRIO table has a base year of 2020², and therefore all final inputs and outputs of the model are expressed in \$2020.

- 17 The methods I have used in this EIA are tested and proven and are employed globally by organisations looking to understand the economic contributions of airports on regional and national economies. They have been tested through significant peer review both academically and through industry review, and the approaches and findings have undergone scrutiny in the Environment Court.

Metrics Used to Explain Economic Contribution

- 18 The EIA model measures the economic contribution of the Christchurch Airport using value added (synonymous with contribution to regional Gross Domestic Product), and employment. These two metrics tend to be used because they best represent the 'true' value of the contribution (or impact) to the local economy.
- 19 Value added is the principal measure of economic activity, and is estimated as operating surplus, wages and salaries paid to staff and working proprietors, depreciation, taxes and subsidies. The employment impacts are measured in terms of the count of employees (as well as estimated working proprietors) sustained.³
- 20 As well as estimating the direct valued added or employment effect of spending in the economy linked to the Christchurch Airport,⁴ the model also calculates the indirect effect. Indirect effects result from an industry stimulating the creation of further demand through the purchases that it makes in other sectors of the economy. For example, CIAL directly spends money on property maintenance services from the property maintenance services sector causing their output to increase to sustain the demands of CIAL. In turn, the property maintenance services sector purchases more inputs from other sectors to cope with their increased output. Each of these transactions in addition to the initial injection of demand, generates a degree of value added and employment in the economy, and requires additional worker time.

¹ The economic regions in the model are Christchurch City, Selwyn District, Waimakariri District, rest of Canterbury Region, rest of South Island and rest of New Zealand (i.e., North Island). Results by region can be aggregated to give total Canterbury Region or total New Zealand for example.

² Year end June.

³ This measure of employment is called the Modified Employment Count (*MEC*) by Market Economics.

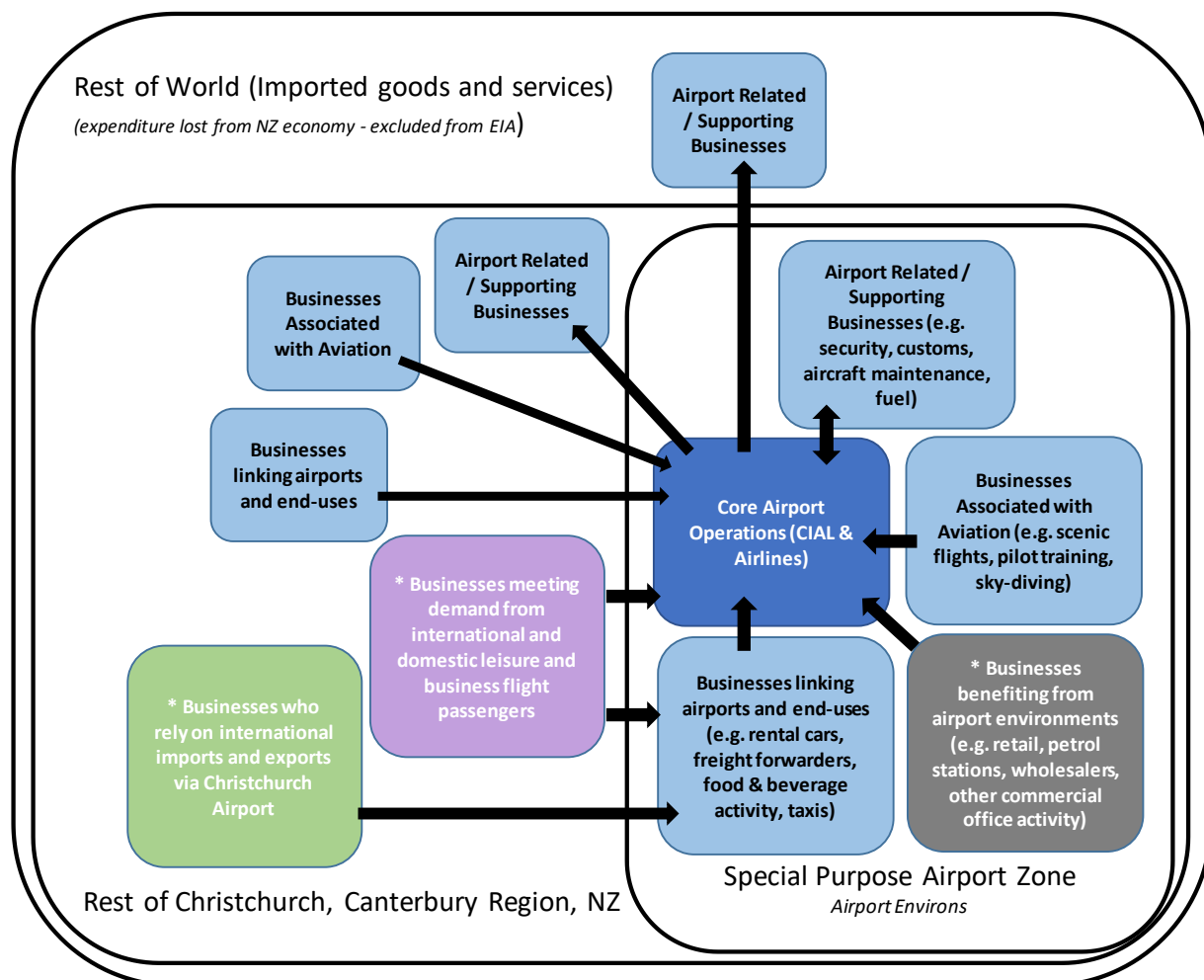
⁴ The economic contribution of CIAL as a business entity is based on detailed expenditure data supplied to me, while the economic contribution of all core airport operations (including but not limited to CIAL) and all facilitated business activity relies on average ratios of gross output/MEC derived from the MRIO.

- 21 In addition to the direct and indirect effects of demand, the model also estimates induced effects. Induced effects arise from the increased demand for goods and services made by households who have received increased income as a result of the direct and indirect effects. CIAL pays wages and salaries to staff, as do its suppliers. These workers then spend money in the economy generating a further round of value added and employment.
- 22 The total economic contribution of the Christchurch Airport is the sum of the direct, indirect and induced value added and employment it sustains within the economy (directly or by facilitating further spending).

Components of Economic Contribution – Classification & Spatial Structure

- 23 As mentioned, airports directly sustain or facilitate a range of different business activities. Many of these businesses will be located in the immediate environs of an airport – in this case the SPAZ – and others will be located elsewhere in Christchurch, Canterbury Region or New Zealand. A small number of businesses that support Christchurch Airport (i.e., sell goods and services) are located offshore. This is expenditure lost from the New Zealand economy and is therefore excluded from the EIA.
- 24 Figure 2 provides a visual summary of how different component parts of the economic contribution of the Christchurch Airport have been assessed. These classifications are discussed further below. The EIA model currently focusses on the economic contribution made by businesses inside the SPAZ (with further work to come on capturing the economic contribution of businesses directly related to the Christchurch Airport but based outside the SPAZ, including facilitated trade and tourism contributions).

Figure 2 – Key Business to Business Relationship Able to be Captured in the Economic Contribution of Christchurch Airport



* = activity facilitated by the airport. All other activities are partly or wholly dependent on the presence of the airport
 Direction of arrow indicates the direction of direct purchasing of goods/services.

Selecting the year to represent the Airport's economic contribution

- 25 The EIA estimates the contribution that the Christchurch Airport and wider SPAZ makes to the economy (in each region) over the course of one year. It is therefore an annual snapshot of its economic contribution, and this contribution will change over time.
- 26 It is sensitive to changes in passenger flows and freight, with Covid-19 having a significant impact on air-travel. It is also sensitive to the timing of capital expenditure (development) within the SPAZ, and macro-economic conditions which impact business activity and employment generally.
- 27 Employment in the SPAZ (inclusive of CIAL) peaked in February 2020 at just under 8,790 jobs (4% of Christchurch City employment

that year and 3% of Canterbury Region employment), with 70% of those jobs concentrated in 9 industries⁵. Total employment in the SPAZ dropped substantially in February 2021, but increased in February 2022 to just over 6,800 (with several sectors still suffering the global effects of Covid-19).

*Figure 3 – Relative Distribution of Workers Within the SPAZ 2021
(Sample Mobile Phone Data)*



28 Figure 3 shows the relative distribution of workers across the SPAZ in 2021⁶ – the larger the blue/white clusters, the more workers visited that location across the course of the year. While only a

⁵ Source: StatisticsNZ Business Demography. Top 9 industries based on the highest level of industry classification (6-digit ANZSIC). In descending order: Air and Space Transport, Aircraft manufacturing and repair services, Passenger car rental and hiring, Courier pick-up and delivery services, Airport operations and other air transport services, Postal services, Investigation and security services, Central government administration, and Freight forwarding services.

⁶ The data is sourced from cell phone data which records movements of phone owners using GPS. Those movements have been cleaned to show destinations constituting a visit (i.e., to remove movement between destinations). The workplace SA1 of phone owners has been identified and provided as part of the data.

sample of workers, it shows that strong concentrations of employment are based in and around the terminal, Sudima hotel, Spitfire Square (shopping centre), Mustang Park (rental car depots) in the north and localised concentrations in Dakota Park (freight and logistics) to the south. The Hertz and VINZ locality is also showing a high concentration of SPAZ employment activity.

- 29 A total of 4.59 million passengers passed through the Christchurch Airport in the latest (2022) calendar year (arrivals and departures), with 87% on domestic flights and 13% on international flights. However, this total passenger count is just 66% of the total passengers that passed through the airport in 2019 - which reached 6.90 million. This again highlights that the recovery from Covid-19 is still ongoing. Even domestic flight passengers are only at 77% of pre-Covid-19 levels.
- 30 In 2019, passengers on international flights made up 26% of the total passenger count (compared to 13% in 2022). Indications from the first 4 months of 2023 are that the mix of domestic and international flight passengers is starting to return to 'normal'.
- 31 The Christchurch Airport not only caters for international and domestic flights (including key domestic routes and regional flights), but caters for a range of other scheduled and unscheduled flights. The trends for these other flight types over time are similar to those discussed above for passenger movements.
- 32 A total of nearly 84,500 flight movements were registered at the Christchurch Airport in the 2022 calendar year (landings and take-offs), with 26% associated with main route domestic passenger flights, 37% with domestic regional passenger flights and 5% associated with international passenger flights. This gives a combined total for scheduled passenger flight movements of nearly 57,300.
- 33 The balance of 2022 flight movements comprised 25% general aviation flights, 1% international freight flights, 5% domestic freight flights and 1% military flights. On average in the last five years (2018-2022), Christchurch Airport has handled 167 Military flights to/from Antarctica, 527 domestic military flight movements and 50 international military flight movements per annum.
- 34 However, due to the ongoing recovery from Covid-19, these total 2022 flight movements are just 81% of the total flight movements that Christchurch Airport had in 2019 - which reached nearly 102,300 flights. Domestic (key route) passenger flights are only at 62% of pre-Covid-19 levels and international passenger flight movements are at just 38%. On the contrary, Christchurch Airport has experienced steady growth in the number of regional passenger

flights and freight flights since 2019. Freight is playing an increasingly important role⁷.

- 35 The effect of Covid-19 on flight and passenger movements has implications for a component of CIAL's revenue in any one year given that airlines are charged landing and/or passenger fees by CIAL. However, total annual operating expenditure by CIAL has been relatively stable between 2017 and 2022 due to having many fixed rather than variable costs.
- 36 Despite that, the nature of expenditure has changed across recent years with rent relief (for tenants in the SPAZ) and incentives (price subsidies) for airlines and promotion being relatively greater expenses in the years ending June 2020 and 2021 to try and manage the effects of Covid-19.
- 37 It is not possible for all annual operating expenditure provided to us by CIAL to be used in the EIA model. We have focussed on expenses associated with the purchase of tangible goods and services as well as wage and salary (and related) payments. This component of operating expenditure has been increasing gradually between 2018 and 2022. At the same time, capital expenditure (on infrastructure and new/upgraded buildings for example) has dropped significantly in 2021 and 2022. This makes a material difference on what year is selected to examine the economic contribution of the Christchurch Airport (and wider SPAZ) when measured relative to a year end June baseline economy.
- 38 To avoid under-representing the economic contribution of CIAL as a business entity due simply to the temporary effects of Covid-19, the results below are based on the year end June 2019. This financial year represents combined operating and capital expenditure by CIAL at its highest in recent years⁸ – a level which CIAL would reasonably be expected to return to in the near future.
- 39 Modelling the economic contribution of all airport related or SPAZ business activity (inclusive of CIAL) is based on a more high-level employment-driven approach and not the detailed financial data approach used specifically for CIAL's economic contribution. To avoid under-representing the economic contribution of all business activity directly related to or facilitated by the Christchurch Airport, the results below are based on the year end February 2020. As noted above, this employment snapshot in the StatisticsNZ Business Demography data represents peak employment in recent years.

⁷ Refer CIAL submission on government policy changes for managing air freight (paragraph 11).

⁸ Noting that operating expenditure able to be included in the EIA model is in fact slightly higher in the year ending June 2022. Hence, the results are slightly conservative with respect to operating expenditure impacts.

Again, this is a level of total employment that the SPAZ is expected to return to in the near future.

ECONOMIC CONTRIBUTION OF CHRISTCHURCH AIRPORT

- 40 This section of my evidence steps through the provisional results of our EIA modelling (that are currently available), starting with results on the economic contribution specifically of CIAL, followed by a broader breakdown of economic contributions for business activity grouped in accordance with Figure 2 above.

Economic Contribution of CIAL Only - Provisional

- 41 CIAL owns 792 hectares of rateable land in the SPAZ, with a current land value of just under \$448 million, a total value of improvements of approximately \$935 million and a combined capital value of \$1.38 billion. They are a significant property owner and landlord, with the majority of businesses established in the SPAZ leasing land and buildings off CIAL.
- 42 CIAL have provided detailed expenditure (and revenue) data for recent years, including the share of that expenditure that is spent in each region of the economic model. I have coded that expenditure to match the model's industry sectors. As noted above, we have not entered all expenditure into the model, and have focused on purchases of goods and services, as well as payments of wages and salaries. Local government rates is a significant cost for CIAL (ranging from \$6-\$7 million per annum in recent years). This cost is not factored into the economic contribution, and for this and other reasons, the results are considered conservative.
- 43 Table 1 shows (provisionally) that CIAL as a business entity contributed \$₂₀₂₀142 million in total direct, indirect and induced value added to the Canterbury Region economy in the YE June 2019 and \$₂₀₂₀191 million in total value added to the New Zealand economy that year. It sustained total employment of 1,272 MECs in Canterbury Region, and 1,552 MECs in New Zealand overall. This employment contribution is in addition to CIAL's own staff. The majority of the economic contribution is driven by capital expenditure, followed by operational expenditure and then wages and salaries.

Table 1 – Economic Contribution of CIAL As a Business Entity YE June 2019 – Provisional Results

Year Ending June 2019	Valued Added (₂₀₂₀ \$ million)				Employment (₂₀₂₀ MECs) *			
	Operating Expenditure	Capital Expenditure	Wages & Salaries	Total Contribution	Operating Expenditure	Capital Expenditure	Wages & Salaries	Total Contribution
	Total Economic Contribution							
Waimakariri District	\$ 0	\$ 2	\$ 1	\$ 3	2	12	4	18
Christchurch City	\$ 16	\$ 93	\$ 10	\$ 120	198	820	93	1,111
Selwyn District	\$ 0	\$ 2	\$ 1	\$ 3	2	13	4	19
Rest of Canterbury	\$ 2	\$ 12	\$ 3	\$ 16	13	92	20	124
Total Canterbury Region	\$ 19	\$ 108	\$ 15	\$ 142	215	936	121	1,272
Rest of South Island (incl. Chathams)	\$ 1	\$ 5	\$ 1	\$ 8	10	47	12	69
North Island	\$ 13	\$ 23	\$ 6	\$ 42	66	118	29	213
Total New Zealand	\$ 33	\$ 136	\$ 22	\$ 191	291	1,102	162	1,554

Source: CIAL, Market Economics Ltd. Christchurch Airport EIA Model 2023.

Contribution captures expenditure on intermediate inputs and wages and salaries only. Excludes operating surplus, taxes (including rates), interest and imports.

* Based on Modified Employment Count or MEC: Employee Count including working proprietors.

Economic Contribution of Core Airport Operations – Provisional

- 44 Core airport operations in the SPAZ include the CIAL itself and other critical airport operations and includes the airlines that operate from the SPAZ. Businesses operating a terminal for private jets within the SPAZ are included here. As the Christchurch Airport plays an important role for New Zealand Defence Force activities, I have included this activity as part of the core airport operation alongside other airlines. Christchurch Airport is also the base of Antarctic research operations in New Zealand which make a number of flights to Antarctica each year. This business activity is treated as part of the core operations of the airport (akin to an airline) for the purpose of this EIA.
- 45 Table 2 shows (provisionally) that businesses that are part of core airport operations in the SPAZ contributed \$₂₀₂₀440 million in total direct, indirect and induced value added to the Canterbury Region economy in the YE February 2020 and \$₂₀₂₀687 million in total value added to the New Zealand economy that year. They sustained total employment of 4,013 MECs in Canterbury Region, and 5,377 MECs in New Zealand overall. This employment contribution is in addition to those employed in core airport operations in the SPAZ in 2020.

Table 2 – Economic Contribution of Core Airport Operations in the SPAZ YE February 2020 – Provisional Results

Year Ending February 2020	Valued Added (₂₀₂₀ \$ million)				Employment (₂₀₂₀ MECs) *			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Core Airport Operations (Including CIAL)								
Waimakariri District	\$ 1	\$ 2	\$ 3	\$ 5	7	9	16	32
Christchurch City	\$ 208	\$ 79	\$ 82	\$ 369	1,968	741	743	3,452
Selwyn District	\$ -	\$ 4	\$ 3	\$ 8	12	13	17	41
Rest of Canterbury	\$ -	\$ 36	\$ 22	\$ 58	222	109	156	487
Total Canterbury Region	\$ 209	\$ 121	\$ 111	\$ 440	2,208	873	932	4,013
Rest of South Island (incl. Chathams)	\$ -	\$ 26	\$ 16	\$ 41	117	101	141	359
North Island	\$ 56	\$ 63	\$ 86	\$ 205	224	334	448	1,006
Total New Zealand	\$ 265	\$ 210	\$ 213	\$ 687	2,548	1,308	1,521	5,377

Source: CIAL, Market Economics Ltd. Christchurch Airport EIA Model 2023.

Contribution captures expenditure on intermediate inputs and wages and salaries only. Excludes operating surplus, taxes (including rates), interest and imports.

* Based on Modified Employment Count or MEC: Employee Count including working proprietors.

Economic Contribution of Businesses in the SPAZ Related to or Supporting Airport Operations – Provisional

- 46 Activities related to, or supporting, airport operations or aviation in general includes customs, security, emergency services, police and airline catering activity as well wholesaling of petroleum products. It also includes aircraft maintenance. Christchurch Airport wouldn't be able to operate in the absence of the services. While most of these businesses and organisation are based within the SPAZ, a small number are not co-located. The economic contribution of those airport related and supporting businesses located outside the SPAZ have not been included in the scope of the EIA at this current time.
- 47 Table 3 shows (provisionally) that businesses that are related to or supporting airport operations (and located in the SPAZ) contributed \$₂₀₂₀145 million in total direct, indirect and induced value added to the Canterbury Region economy in the YE February 2020 and \$₂₀₂₀198 million in total value added to the New Zealand economy that year. They sustained total employment of 1,387 MECs in Canterbury Region, and 1,700 MECs in New Zealand overall. This employment contribution is in addition to those employed in those particular SPAZ businesses in 2020.

Table 3 – Economic Contribution of Businesses in the SPAZ Related to/Supporting Airport Operations YE February 2020 – Provisional Results

Year Ending February 2020	Valued Added (2020\$ million)				Employment (2020MECs) *			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
	Airport Related/Supporting Businesses in Special Purpose Airport Zone							
Waimakariri District	\$ 0	\$ 1	\$ 1	\$ 2	3	4	6	13
Christchurch City	\$ 62	\$ 28	\$ 29	\$ 118	647	267	258	1,173
Selwyn District	\$ -	\$ 1	\$ 1	\$ 3	5	5	6	16
Rest of Canterbury	\$ -	\$ 15	\$ 8	\$ 22	91	41	54	186
Total Canterbury Region	\$ 62	\$ 45	\$ 38	\$ 145	747	317	323	1,387
Rest of South Island (incl. Chathams)	\$ -	\$ 5	\$ 5	\$ 10	15	29	41	85
North Island	\$ 6	\$ 15	\$ 23	\$ 44	32	78	119	228
Total New Zealand	\$ 68	\$ 65	\$ 66	\$ 198	794	423	483	1,700

Source: CIAL, Market Economics Ltd. Christchurch Airport EIA Model 2023.

Contribution captures expenditure on intermediate inputs and wages and salaries only. Excludes operating surplus, taxes (including rates), interest and imports.

* Based on Modified Employment Count or MEC: Employee Count including working proprietors.

Economic Contribution of Businesses in the SPAZ Linking the Airport with End-users – Provisional

48 Activities linking the Christchurch Airport and aviation activities with end-users include:

48.1 Businesses directly associated with the Airport⁹ that are there to service the needs of **passengers** rather than the operations of the airport per se. This includes food and beverage businesses serving passengers while in the SPAZ,¹⁰ accommodation located in the SPAZ, duty-free stores provided within the terminal, parking services, any travel booking services based in the SPAZ, and car rental companies based in the SPAZ.¹¹ Retail activities inside and outside the terminal are factored into the modelling elsewhere as explained below. While most of these businesses linking passengers with the airport are based in the SPAZ, some are not (for example taxi companies and some duty-free businesses). Those outside the SPAZ are not currently captured in the EIA model.

48.2 Couriers, postal services and freight forwarders are also key businesses linking households and businesses with the Airport (i.e., to airlines transporting air freight). Again, the EIA

⁹ I.e., have a transactional relationship with CIAL. This may include paying a fee to conduct business in the SPAZ (such as gate charges), or leasing space/buildings from CIAL within the SPAZ.

¹⁰ Located in the terminal, or elsewhere in the SPAZ.

¹¹ While all rental companies in the SPAZ are based in the Mustang Park precinct, some also have a presence within the terminal.

captures those businesses located in the SPAZ,¹² but there are some businesses that still access the Airport for freight reasons that are based outside the SPAZ. To be conservative, those less proximate businesses are not currently included.

- 49 Table 4 shows (provisionally) that businesses that are helping to link the Airport with end-users (and located in the SPAZ) contributed \$₂₀₂₀128 million in total direct, indirect and induced value added to the Canterbury Region economy in the YE February 2020 and \$₂₀₂₀236 million in total value added to the New Zealand economy that year. They sustained total employment of 128 MECs in the Canterbury Region, and 236 MECs in New Zealand overall. This employment contribution is in addition to those employed in those particular SPAZ businesses in 2020.

Table 4 – Economic Contribution of Businesses in the SPAZ Linking the Airport with End Users YE February 2020 – Provisional Results

Year Ending February 2020	Valued Added (₂₀₂₀ \$ million)				Employment (₂₀₂₀ MECs) *			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Businesses Linking Airport and End-Users Located in the Special Purpose Airport Zone								
Waimakariri District	\$ 0	\$ 1	\$ 1	\$ 2	2	4	5	12
Christchurch City	\$ 52	\$ 27	\$ 24	\$ 103	475	258	215	948
Selwyn District	\$ -	\$ 2	\$ 1	\$ 3	5	6	5	16
Rest of Canterbury	\$ -	\$ 14	\$ 6	\$ 20	63	41	45	149
Total Canterbury Region	\$ 52	\$ 44	\$ 32	\$ 128	546	309	270	1,125
Rest of South Island (incl. Chathams)	\$ -	\$ 7	\$ 5	\$ 12	21	39	47	107
North Island	\$ 26	\$ 32	\$ 37	\$ 95	174	182	193	550
Total New Zealand	\$ 78	\$ 83	\$ 74	\$ 236	741	531	510	1,782

Source: CIAL, Market Economics Ltd. Christchurch Airport EIA Model 2023.

Contribution captures expenditure on intermediate inputs and wages and salaries only. Excludes operating surplus, taxes (including rates), interest and imports.

* Based on Modified Employment Count or MEC: Employee Count including working proprietors.

Economic Contribution of Businesses in the SPAZ Associated with Aviation – Provisional

- 50 Activities with aviation as a key focus or input into their business processes include scenic flight operators, sky diving operators, flight training providers and aero clubs. At this stage, we have considered only those associated businesses located within the SPAZ. The SPAZ is also home to the International Antarctic Centre. While this tourist and educational attraction is not dependent on being near the Christchurch Airport, it is linked to Antarctic research organisations that are dependent on the Airport to operate. They are therefore associated with aviation activity and included here. Overall, this is a relatively small group of businesses.
- 51 Table 5 shows (provisionally) that businesses that are associated with aviation (and located in the SPAZ) contributed \$₂₀₂₀4 million in

¹² These businesses are concentrated in the Dakota Park precinct.

total direct, indirect and induced value added to the Canterbury Region economy in the YE February 2020 and \$20205 million in total value added to the New Zealand economy that year. They sustained total employment of 35 MECs in Canterbury Region, and 47 MECs in New Zealand overall. This employment contribution is in addition to those employed in those particular SPAZ businesses in 2020.

Table 5 – Economic Contribution of Businesses in the SPAZ Associated with Aviation YE February 2020 – Provisional Results

Year Ending February 2020	Valued Added (₂₀₂₀ \$ million)				Employment (₂₀₂₀ MECs) *			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Businesses in the SPAZ Associated with Aviation								
Waimakariri District	\$ 0	\$ 0	\$ 0	\$ 0	0	0	0	0
Christchurch City	\$ 1	\$ 1	\$ 1	\$ 3	16	7	6	30
Selwyn District	\$ -	\$ 0	\$ 0	\$ 0	0	0	0	0
Rest of Canterbury	\$ -	\$ 0	\$ 0	\$ 1	2	1	1	4
Total Canterbury Region	\$ 1	\$ 1	\$ 1	\$ 4	19	8	8	35
Rest of South Island (incl. Chathams)	\$ -	\$ 0	\$ 0	\$ 0	2	1	1	4
North Island	\$ 0	\$ 0	\$ 1	\$ 2	2	3	4	9
Total New Zealand	\$ 2	\$ 2	\$ 2	\$ 5	23	12	13	47

Source: CIAL, Market Economics Ltd. Christchurch Airport EIA Model 2023.

Contribution captures expenditure on intermediate inputs and wages and salaries only. Excludes operating surplus, taxes (including rates), interest and imports.

* Based on Modified Employment Count or MEC: Employee Count including working proprietors.

ECONOMIC CONTRIBUTION FACILITATED BY CHRISTCHURCH AIRPORT

- 52 An important characteristic of airports is that they can influence economic activities which are substantially greater than the economic activity of the Airport itself. These 'facilitated effects', form an important component of the overall contribution of airports.

Economic Contribution of Other Businesses Benefiting from Airport Environs – Provisional

- 53 As noted above, CIAL have created a number of precincts within the SPAZ that they market to businesses considering an airport location.¹³ This includes the Harvard Park precinct marketed as a 'trade and service precinct' which currently contains the Bunnings Warehouse. There is the Agri-Export precinct and the shopping centre (Spitfire Square).¹⁴ Dakota Park is the 'freight and logistics' precinct and has attracted a range of wholesaling businesses (in addition to freight/postal companies), but other sorts of businesses as well (such as storage companies).

¹³ <https://www.christchurchairport.co.nz/commercial/>

¹⁴ Food and beverage services in this precinct are classified as directly airport related (services linking passengers with airports).

- 54 All up, there are a number of businesses that are not directly connected to an airport location, but benefit from:
- 54.1 being close to airport related services (such as wholesalers who can import/export air-freighted goods with reduced road transport costs, or businesses whose staff carry out a lot of air travel);
 - 54.2 being close to a large, concentrated workforce or passenger base (i.e., potential customers) (such as locating a petrol station close to car rental returns or retail businesses within the terminal, the gym, or even the doggy day-care/kennel based in the SPAZ); and
 - 54.3 the location of the SPAZ to serve a trade catchment in Christchurch City not close to other business zones in Christchurch (such Bunnings).
- 55 Figure 4 shows the relative distribution of visits within the SPAZ by people that do not live in the Canterbury Region. Again, it is a sample of cell phone owners from 2021 (so is largely New Zealand residents). While not all visits are necessarily linked to travel via Christchurch Airport, the results highlight the importance of some of these other businesses to visitors to the region, especially those located along the northern side of Memorial Avenue and in the north of the SPAZ.¹⁵

¹⁵ A range of other businesses benefiting from being located in the SPAZ are not visitor facing businesses and so will not show up in Figure 3. They will however be captured in Figure 2 which shows workers in the SPAZ.

Figure 4 – Relative Distribution of Non-Canterbury Resident Visits Within the SPAZ 2021 (Sample Mobile Phone Data)



- 56 Some of the visitation patterns in Figure 4 are for businesses that are directly related to the airport and discussed in the sections above. This includes businesses linking the Airport with end-uses (i.e. food and beverage outlets, including McDonalds and other outlets in Spitfire Square, as well as rental car businesses and the Sudima Hotel). The International Antarctic Centre is also a key concentration of visitors to the region (and treated as an aviation associated activity already discussed above).
- 57 However, the BP, Raeward Fresh and Bunnings – which are all businesses not ‘dependent’ on airports for their operation but benefiting from being in the SPAZ, are used by visitors to the Canterbury Region. Spitfire Square, which contains a range of retail and service activities, clearly has an important role for visitors.
- 58 These other businesses benefiting from the Airport environs are therefore an important component of the SPAZ and their presence is facilitated by CIAL through the lease of sites/buildings. They are also an important revenue earner for CIAL that helps fund core airport operations. They are included in the EIA, but their economic

contribution needs to be considered differently from other classified activities (i.e., as facilitated business activity).

- 59 Table 6 shows (provisionally) that businesses that benefit from being in the SPAZ (but are not directly connected to the airport) contributed \$₂₀₂₀153 million in total direct, indirect and induced value added to the Canterbury Region economy in the YE February 2020 and \$₂₀₂₀227 million in total value added to the New Zealand economy that year. They sustained total employment of 1,349 MECs in Canterbury Region, and 1,773 MECs in New Zealand overall. This employment contribution is in addition to the significant employment in those particular SPAZ businesses in 2020.

Table 6 – Economic Contribution of Businesses Benefiting from Being in the SPAZ YE February 2020 – Provisional Results

Year Ending February 2020	Valued Added (₂₀₂₀ \$ million)				Employment (₂₀₂₀ MECs) *			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Businesses in the Special Purpose Airport Zone Benefiting from Airport Environs								
Waimakariri District	\$ 1	\$ 1	\$ 1	\$ 3	8	7	7	22
Christchurch City	\$ 57	\$ 35	\$ 29	\$ 120	525	318	262	1,106
Selwyn District	\$ -	\$ 3	\$ 1	\$ 4	11	8	6	26
Rest of Canterbury	\$ -	\$ 18	\$ 8	\$ 26	89	53	55	197
Total Canterbury Region	\$ 58	\$ 56	\$ 39	\$ 153	633	386	331	1,349
Rest of South Island (incl. Chathams)	\$ -	\$ 8	\$ 5	\$ 14	25	41	48	114
North Island	\$ 11	\$ 21	\$ 28	\$ 60	55	109	146	310
Total New Zealand	\$ 69	\$ 85	\$ 73	\$ 227	713	536	524	1,773

Source: CIAL, Market Economics Ltd. Christchurch Airport EIA Model 2023.

Contribution captures expenditure on intermediate inputs and wages and salaries only. Excludes operating surplus, taxes (including rates), interest and imports.

* Based on Modified Employment Count or MEC: Employee Count including working proprietors.

Economic Contribution of International Imports and Exports – Provisional

- 60 The international movement of freight provides a key connection between New Zealand firms and international markets. Most of New Zealand's imports and exports are moved with ocean going vessels but around 14% of goods, by value, are exported via air. In terms of imports, nearly a fifth of imports by value (23%) are shipped via air. Christchurch Airport handles a large share of New Zealand's international freight by value with 1.2% of total imports and 2.9% of total exports.
- 61 With reference to exports, the goods need to be produced before being exported. This means that local value chains are influenced by the ability to sell goods offshore and that removing the link provided by Christchurch Airport would reduce the level of activity that could be sustainably undertaken.¹⁶ Therefore it is possible to estimate the

¹⁶ The level of influence is determined by the availability of suitable and cost effective substitute products.

total value associated with producing the exported goods and view that value as a facilitated effect.

- 62 A similar argument can be used for imports. A portion of imported goods are used as intermediate inputs – supporting local production.¹⁷ Removing the ability to source specific inputs via Christchurch Airport would influence local production processes.¹⁸
- 63 While we know the nature (and value) of goods transported via Christchurch Airport, estimating the spatial distribution of the trade effects facilitated by Christchurch Airport is difficult because there is very limited information on where goods are shipped to/from. The EIA takes the approach of attributing international air-freighted goods passing through the Airport to businesses located across Canterbury (pro rata the distribution of known imports/exports by sector across MRIO regions within Canterbury).
- 64 At the time of drafting this evidence, that modelling of facilitated international trade activity was not complete. Indicatively, and based on previous EIAs of airports in New Zealand by Market Economics, the contribution will be several orders of magnitude greater than the impact of business activity directly related to the Airport.

Economic Contribution of Domestic and International Passengers – Provisional

- 65 Travellers incur costs and spend money during their travels. Some expenditure occurs before the tourist leaves their origin, but a large proportion is spent at the destination(s). This expenditure drives the economic effects of tourism. The airport network connects origins and destinations making it possible for travellers to access tourism products.
- 66 While Christchurch Airport does not generate this expenditure directly, it facilitates the movement of tourists and other visitors, and therefore the creation of economic activity in the national and regional economy. The facilitated economic activity calculated in the EIA model includes international visitor spend and New Zealand resident spend on travel (with a key focus on inbound travel to Christchurch Airport).
- 67 At the time of drafting this evidence, that modelling of facilitated tourism activity was not complete. Care is needed not to double

¹⁷ The remainder is imported by final demand sectors (i.e., households buying products from overseas).

¹⁸ I note that some of the inputs and exports may be used/produced within the airport environs. In the Canterbury context, 3% of the region's employment is in the SPAZ meaning that only a small portion of the total trade effect can be attributed to the environs (and therefore double counted).

count the expenditure with airlines, rental car businesses, food and beverage outlets, other retail and service providers, accommodation and other business activity (including the International Antarctic Centre) located in the SPAZ and already captured in the economic contributions discussed above.

- 68 Indicatively, and based on previous EIAs of airports in New Zealand by Market Economics, the facilitated contribution to tourism activity can be several orders of magnitude greater than the impact of business activity directly related to the Airport. However, that contribution will vary significantly depending on what year is modelled, due to the impacts of Covid-19 on air travel (discussed above).

SUMMARY OF ECONOMIC CONTRIBUTION

- 69 Table 7 combines the EIA results currently completed at the time of this evidence. It shows all the directly airport related business activity and one of the facilitated activity categories (businesses benefiting from Airport environs).
- 70 The total economic contribution to the Canterbury Region from all business activity in the SPAZ that is directly related in some way to operation or presence of the Christchurch Airport is \$₂₀₂₀717 million of value added and 6,560 jobs (in addition to those employed directly by those businesses) (YE February 2020). Those same businesses contribute \$₂₀₂₀1.13 billion of value added and 8,906 jobs to the New Zealand economy.

Table 7 – Summary of Partial EIA Results - Provisional

Year Ending February 2020	Valued Added (₂₀₂₀ \$ million)				Employment (₂₀₂₀ MECs) *			
	Direct	Indirect	Induced	Total	Direct	Indirect	Induced	Total
Canterbury Region								
Core Airport Operations	\$ 209	\$ 121	\$ 111	\$ 440	2,208	873	932	4,013
Airport Related/Supporting	\$ 62	\$ 45	\$ 38	\$ 145	747	317	323	1,387
Businesses Linking End-Users	\$ 52	\$ 44	\$ 32	\$ 128	546	309	270	1,125
Businesses Associated w. Aviation	\$ 1	\$ 1	\$ 1	\$ 4	19	8	8	35
Total Core & Airport Related	\$ 324	\$ 211	\$ 182	\$ 717	3,519	1,508	1,533	6,560
Other SPAZ Businesses	\$ 58	\$ 56	\$ 39	\$ 153	633	386	331	1,349
Total Direct & Facilitated **	\$ 382	\$ 267	\$ 222	\$ 870	4,152	1,894	1,863	7,909
New Zealand								
Core Airport Operations	\$ 265	\$ 210	\$ 213	\$ 687	2,548	1,308	1,521	5,377
Airport Related/Supporting	\$ 68	\$ 65	\$ 66	\$ 198	794	423	483	1,700
Businesses Linking End-Users	\$ 78	\$ 83	\$ 74	\$ 236	741	531	510	1,782
Businesses Associated w. Aviation	\$ 2	\$ 2	\$ 2	\$ 5	23	12	13	47
Total Core & Airport Related	\$ 413	\$ 359	\$ 355	\$ 1,127	4,106	2,274	2,527	8,906
Other SPAZ Businesses	\$ 69	\$ 85	\$ 73	\$ 227	713	536	524	1,773
Total Direct & Facilitated **	\$ 482	\$ 445	\$ 428	\$ 1,354	4,819	2,810	3,051	10,680

Source: CIAL, Market Economics Ltd. Christchurch Airport EIA Model 2023.

* Based on Modified Employment Count or MEC: Employee Count including working proprietors.

** Currently excludes results of facilitated contribution of tourism and international trade.

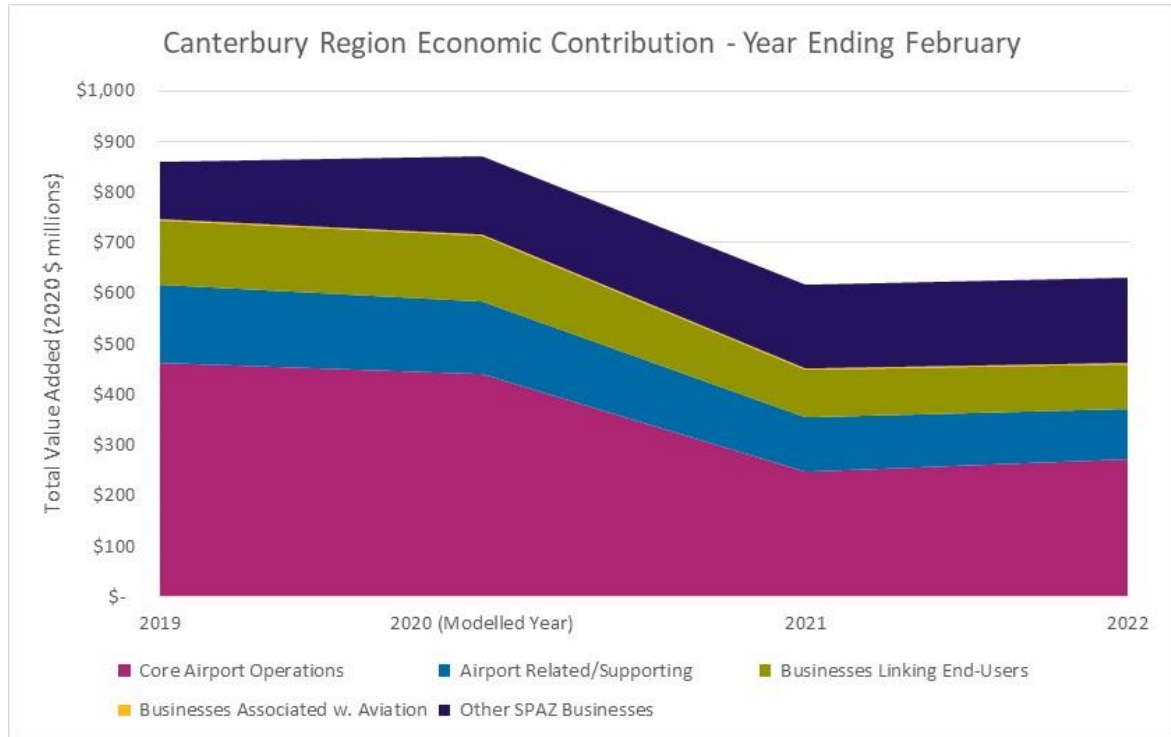
- 71 Once the facilitated economic effect of other SPAZ businesses benefiting from the Airport environs is added, the valued added contribution to the regional economy rises to \$₂₀₂₀870 million and employment grows to 7,909 jobs (in addition to those employed directly in the SPAZ). Nationally, direct and (partial) facilitated effect of the Christchurch Airport rises to \$₂₀₂₀1.35 billion, and employment rises to 10,680 jobs (YE February 2020). Once tourism and international trade facilitated effects are added, the economic contribution will be substantially higher.
- 72 The vacant land remaining in the SPAZ signals that with every new activity that is established in the zone in the future, the greater the economic contribution of the SPAZ will be, and depending on the type of business established, the greater the direct or facilitated economic contribution of the Christchurch Airport will be. That is, I expect the economic contribution of the Airport (and wider SPAZ) to be greater in the future than assessed in this current study.

ECONOMIC RISKS IF CHRISTCHURCH AIRPORT OPERATIONS ARE CONSTRAINED

- 73 The EIA modelling clearly demonstrates the economic significance of the Christchurch Airport – based on a recent ‘peak year’ of employment and performance. What the modelling has also helped demonstrate is how employment and value added sustained by the Airport can drop when air travel (passengers and freight) is constrained.
- 74 Covid-19 has had an unprecedented effect on the Airport (and related) sector (and it is far from over). Figure 4 shows the value added results for Canterbury Region for all Airport related and facilitated business activity located in the SPAZ for the period 2019-2022. To put this in context, the results discussed above in this evidence were for the year 2020 (YE February) and were very similar to the preceding 2019 year.
- 75 However, core airport operations (particularly airlines) were significantly reduced because of Covid-19. This analysis shows that when flights (and freight and passengers on those flights) are reduced, then this has a flow-on effect for Airport related/supporting businesses in the SPAZ, as well as businesses linking the Airport with end-users in the SPAZ, and activities associated with aviation based in the SPAZ. As all of those businesses contracted (with substantial reductions in employment), so too did their spending across their supply chains – leading to a significant drop in economic activity right across Canterbury Region.
- 76 In fact, the only activity in the SPAZ that helped grow valued added in Canterbury Region during the Covid-19 period was the other businesses benefiting from the Airport environs that are not directly

connected to the airport. Data for February 2023 is expected to show some recovery in Airport related and facilitated value added and employment in Canterbury (and total New Zealand), but that data is not yet available.

Figure 4 – Value Added Contribution to the Canterbury Region 2019-2022 of Total SPAZ Business Activity by Relationship to the Airport



- 77 The EIA results show that ensuring that the Christchurch Airport can operate safely, efficiently, and to its potential, has significant economic benefits for Canterbury Region. It is important, from an economics perspective, to manage reverse sensitivity effects in the Airport’s 50dBA Ldn Air Noise Contour and to manage bird strike risk in the operational area of Christchurch Airport (as proposed in CIAL’s submission) if it ensures these benefits are preserved.
- 78 Any risk to Christchurch Airport operation and efficiency will have tangible negative effects on many, diverse businesses and households across the region (and beyond). Such risks should be avoided where possible, or minimised where practicable in recognition of the strategic importance of nationally significant infrastructure asset.

CONCLUSION

- 79 Airports and the activities directly related to and facilitated by them, have extensive value chains meaning that any change, positive or

negative, in the system is bound to have a sizable impact on contributions to value added and employment. The latest EIA modelling demonstrates that the Christchurch Airport makes a significant contribution to the Canterbury economy.

80 By delivering high quality and efficient air-services the Christchurch Airport can enhance the growth potential of the Region's economy. This means that ensuring that the Airport is appropriately recognised in the Waimakariri District Plan will be critically important. Managing incompatible land uses in the operational area of the Airport will be critical because:

- 80.1 The Airport's economic contribution is significant and far larger than simply the contribution of CIAL who owns and runs it;
- 80.2 The presence of the Airport plays a key role in attracting inward investment in Canterbury across a range of sectors;
- 80.3 The Airport provide a critical service linking Canterbury Region with business opportunities in other regions;
- 80.4 Efficient airport services enhance economic competitiveness by reducing transaction costs for companies involved in international trade; and
- 80.5 The Christchurch Airport plays a critical role in facilitating tourism activity. It acts as a gateway to the wider Canterbury Region.

1 May 2023

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