

Economic Assessment of Regional Significance and Claimed Third-Party Costs – Ryans Road Industrial Development

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Date: 19/02/2026

1. Background

The Panel has reviewed Carter Group's latest submission in support of the Ryans Road Industrial Development and has sought specific comments from a range of parties, including Christchurch International Airport Limited (CIAL), Airways New Zealand, Waka Kotahi NZ Transport Agency (NZTA), Christchurch City Council (CCC), and Environment Canterbury (ECan).

In its response, CIAL and Airways has raised concerns regarding the potential implications of the Ryans Road Industrial Development for aviation operations and safety. In particular, CIAL asserts that the cumulative effect of changes made to the Project to date means that the development now being advanced differs from the project originally listed. CIAL further contends that the Project would diverge even further from the listed proposal if the draft conditions were amended to incorporate all aviation safeguarding recommendations - recommendations which, in CIAL's view, are not currently reflected in the proposed conditions and may not be capable of being fully implemented. In addition, CIAL suggests that if a further aeronautical study were undertaken, and if the Ryans Road Industrial Development were required to absorb any additional constraints necessary to maintain current levels of aviation safety, the Project could diverge further still from the listed proposal. CIAL and Airways has indicated that such outcomes could have implications for the regional significance of the Project, particularly if they resulted in substantive reductions in the scale or intensity of development.

Against this background, Market Economics (ME) has been commissioned by Carter Group to provide independent economic advice on specific matters raised in the response of CIAL and Airways. This includes consideration of the Ryans Road Industrial Development's regional significance, the sensitivity of that significance to hypothetical changes in project scale, and the relevance and potential magnitude of any alleged costs imposed on third parties as a result of aviation-related effects.

I, Greg Akehurst, Director of ME Ltd, have prepared this memorandum in my capacity as an expert. I confirm that I have read and understand the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023, and that I have complied with it in preparing this memorandum. Except where I state that I am relying on the information or opinions of another person, the matters addressed in this memorandum are within my area of expertise. I have not



omitted to consider material facts known to me that might alter or detract from the opinions expressed.

2. Objectives and Scope of Assessment

The objectives of this assessment are threefold.

First, the assessment evaluates the regional significance of the Ryans Road Industrial Development, having regard to its quantified GDP and employment contributions during both the construction and operational phases. In doing so, appropriate weight is placed on enduring operational economic effects, with construction-phase effects considered supportive but secondary.

Second, the assessment provides general direction on how the Project's regional significance may change as its scale changes, through a high-level sensitivity analysis. This analysis considers whether the Ryans Road Industrial Development would continue to deliver benefits of a clearly regional nature if it were hypothetically reduced to 40%, 50%, 60%, 70%, or 80% of the currently proposed scale. The purpose of this analysis is not to anticipate specific design outcomes, but to inform an understanding of risk and proportionality in the context of aviation-related mitigation.

Third, the assessment considers the relevance, ability to quantify, and potential economic magnitude of alleged costs on third parties, particularly operational constraints on CIAL and Airways. This includes an assessment of:

- whether such costs are relevant to an evaluation of the Project's net regional economic effects;
- whether, in principle, they can be robustly and sensibly quantified; and
- whether costs of a plausible scale could materially offset the Project's economic benefits and alter its regional significance.

The assessment does not seek to determine whether specific aviation effects or mitigation measures are required. Rather, it provides economic context to assist the Panel in understanding whether the matters raised by CIAL and Airways, if substantiated, could realistically affect the Ryans Road Industrial Development's standing as a regionally significant development.

3. Assessment of Project Significance

This section assesses the regional significance of the Project having regard to its economic contribution during both the construction and operational phases, and considers the sensitivity of that significance to hypothetical reductions in project scale. The assessment draws on quantified GDP and employment impacts benchmarked against Canterbury's long-run economic performance.

3.1 Construction Phase Effects (Short-Term)

During the construction phase (approximately the first three years), the Project is estimated to generate:

- Approximately 690 full-time equivalent (FTE) jobs per year for three years, and
- Around \$88 million per annum in value added.

This level of activity equates to approximately 0.2% of total filled jobs in Canterbury and around 4% of Canterbury's average annual GDP growth (2015–2024).

If the Project is scaled down, its short-term economic contribution would reduce proportionally—e.g., halving the construction scale would approximately halve the relative shares of employment (to ~0.1% of jobs) and growth contribution (to 2% of GDP growth).

While the construction phase effects are temporary in nature, they represent a material short-term economic stimulus at a regional scale, helping to sustain the construction sector and reinforce the overall scale of the Project. However, consistent with established practice, construction effects are treated as supportive but not determinative in assessing regional significance.

3.2 Operational Phase Effects (Ongoing)

The operational phase of the Project delivers substantial and enduring regional economic benefits, which form the primary basis for assessing regional significance.

On an ongoing annual basis, the Project is estimated to facilitate:

- \$320.7 million in value added, equivalent to approximately 1.0% of Canterbury's average GDP (2015–2024); and
- Approximately 3,276 ongoing jobs, representing a significant and sustained addition to the regional employment base.

For context, the Project's annual value added is equivalent to approximately 15% of Canterbury's average annual GDP growth over the 2015–2024 period. Importantly, the Project's operational impacts are structural rather than transient and extend well beyond localised effects. When considered over a longer-term horizon, the magnitude of these benefits becomes more apparent. Applying a 30-year assessment period¹ and an 8% discount rate², the Project's ongoing operational value added has an estimated present value of approximately \$3.6 billion. This represents a substantial and enduring contribution to the Canterbury regional economy over time.

¹ Applying the NPS-UD 2020 standard of 30 years representing the long term.

² Treasury guidelines for a commercial project

On this basis, the Project at its proposed scale is appropriately characterised as regionally significant.

3.3 Sensitivity to Reductions in Project Scale

To inform an understanding of risk associated with potential aviation-related mitigation, the assessment has considered the extent to which reductions in project scale might affect its regional significance. This analysis focuses on the operational phase, as this is the primary driver of long-term regional outcomes.

Indicative effects of scale reduction are summarised in Table 1 below.

Table 1: Sensitivity of Regional Significance to Changes in Project Scale – Ryans Road Industrial Development

Project Scale (relative to proposed)	Indicative Share of Canterbury GDP	PV of GDP over 30 years (\$m)	Indicative Ongoing Employment	Interpretation
100%	1.0%	\$ 3,610	3,276	Clearly regionally significant
80%	0.8%	\$ 2,888	2,620	Strong regional significance
70%	0.7%	\$ 2,527	2,290	Regional significance retained
60%	0.6%	\$ 2,166	1,970	Likely still regionally significant
50%	0.5%	\$ 1,805	1,640	Borderline regional significance
40%	0.4%	\$ 1,444	1,310	Regional significance becomes contestable

This sensitivity analysis indicates that the Project’s regional significance is robust to moderate reductions in scale. Reductions of up to approximately 40% would still result in:

- GDP contributions in excess of 0.6% of Canterbury’s economy, and
- A long-term GDP contribution of \$2.2Bn in PV terms, and
- Ongoing employment levels in the order of 2,000 jobs.

Only reductions approaching 50–60% of the currently proposed scale (darker shading in the table) are likely to meaningfully call into question whether the Project continues to deliver benefits of a clearly regional nature, and even under that outcome the contribution to regional GDP would still be substantial in PV terms.

3.4 Conclusion on Project Significance

Having regard to both construction and operational effects, and placing appropriate weight on the enduring operational outcomes, the Project is clearly of regional significance at the scale currently proposed.

While construction-phase effects provide a material short-term stimulus, it is the scale, durability, and regional reach of the operational-phase GDP and employment contributions that underpin the



conclusion of regional significance. Based on the operational impact metrics, the analysis indicates that the Project would likely retain its regionally significant status unless it were subject to very substantial reductions in scale (more than 50%), which would proportionally reduce its long-term contribution to regional GDP and growth.

Accordingly, the Project's regional role is resilient to moderate design or scale adjustments, and only mitigation measures that would require reductions approaching or exceeding this threshold would warrant further consideration in terms of proportionality and overall strategic outcomes.

4. Relevance, Quantification, and Potential Impact of Claimed Costs on Third Parties

4.1 Relevance of Claimed Costs on Others

Claims that the Project would impose material costs on third parties, most notably operational constraints on CIAL and Airways, are relevant to a comprehensive assessment of the Project's net regional economic impact. The fast-track approvals process requires consideration of a project's overall benefits and adverse effects. Accordingly, if substantiated, significant and enduring costs borne by a regionally important entity such as CIAL and Airways could, in principle, offset some portion of the Project's direct gross benefits and reduce its net contribution to the Canterbury economy.

However, relevance is conditional, not automatic. For such costs to carry weight in an economic assessment, the analysis must move beyond generalised assertions of "potential" or "theoretical" impacts. Relevance arises only where there is a demonstrable, direct causal relationship between the Project and clearly defined operational consequences for airport or aviation activities.

As currently framed, the concerns raised identify no specific operational changes that would be required, nor do they quantify any resulting cost impacts. In the absence of this specificity, the claimed costs remain abstract and cannot be meaningfully weighed against the Project's quantified benefits.

4.2 Ability to Quantify Claimed Costs

From an economic perspective, aviation-related operational costs are, in principle, eminently quantifiable. For such claims to be actionable within a decision-making framework, they must satisfy a set of minimum evidential standards.

(a) Specific identification of impacts

The assessment must clearly identify the exact operational changes or constraints that would arise as a necessary consequence of the Project. Examples could include:

- Mandatory flight path deviations resulting in increased fuel consumption and flight time;
- Reduced operating hours or capacity constraints at the airport;
- Capital investment requirements for new navigation, safety, or monitoring systems;
- Increases in insurance premiums attributable to demonstrable changes in aviation risk.



Absent this level of specificity, it is not possible to determine whether the claimed impacts are operationally real, marginal, or material.

(b) Robust quantification

Each identified impact must then be translated into a monetary value using standard economic and financial methodologies, such as:

- Engineering or operational costing, including quotations or cost estimates for required system modifications or infrastructure investments;
- Financial modelling of increased operating costs (e.g. fuel, staffing, maintenance) or lost revenue (e.g. reduced flight slots or throughput);
- Market benchmarking, drawing on evidence from comparable airports or aviation environments where similar safety mitigations have been implemented.

(c) Causal attribution

Crucially, a clear and evidence-based link must be established showing that the costs are:

- a direct and necessary consequence of the Project; and
- not the result of pre-existing constraints, normal operational evolution, or speculative future business decisions unrelated to the Project.

Given CIAL and Airways' role as both operator and primary data-holder, it would necessarily need to play a central role in providing this evidence.

Without satisfying the steps above, claimed costs remain non-falsifiable and economically non-actionable. They cannot be tested, compared, or weighed against the Project's quantified benefits in a rational decision-making framework. At present, the claimed costs lack the specificity, quantification, and causal attribution required to inform an assessment of net regional economic effects.

4.3 Potential Impact on Regional Significance – Could These Costs “Tip the Balance”?

For third-party costs to materially undermine the Project's regional significance, they would need to be of a very substantial magnitude, when assessed relative to the scale of the Project's benefits.

The Project's operational-phase impacts provide a clear benchmark:

- Annual gross value added of \$320.7 million, equivalent to approximately 1.0% of Canterbury's average GDP (2015–2024).
- Sensitivity testing indicates that a reduction in net economic contribution to approximately 0.5% of regional GDP represents the approximate threshold at which regional significance starts to become borderline.



This implies that externalised costs would need to offset around \$160 million per annum of value added before they could plausibly tip the balance.

Two illustrative scenarios demonstrate the scale required:

(a) Recurring annual operational costs

If CIAL/Airways were to incur ongoing operational costs in the order of \$50–\$100 million per annum as a direct and unavoidable consequence of the Project, such costs would represent a major offset to the Project’s benefits and would warrant a re-evaluation of the net regional economic effect.

(b) One-off capital costs

Alternatively, a one-off capital cost (for example, investment in new aviation systems) would need to be annualised to assess its economic significance. By way of illustration, a capital expenditure of \$500 million, amortised over 25 years, would equate to an annual cost of approximately \$20 million (excluding financing costs). While material, a cost of this magnitude would not, on its own, be sufficient to negate the Project’s regional significance.

4.4 Technical Aviation Evidence on Likely Impacts and Mitigation Scope

In addition to the economic considerations outlined above, I note that several aviation specialists have provided technical evidence relevant to the likelihood and potential magnitude of operational impacts and associated mitigation costs.

Evidence from Simon McPherson of Cyrrus Limited indicates that no significant operational impacts on Airways are anticipated from the Project. Where mitigation is necessary to protect navigation equipment, it is expected to be limited in scope—such as radar re-configuration or updating radar reflector files—and may be supported by safety cases, manufacturer engineering input, and flight trials. Critically, he concludes that any such costs would not be minor relative to the Project's overall economic benefits.

Consistent conclusions are reached by Geraint Bermingham, Director of Navigatus Consulting Limited, who assesses that the proposed development would result in no material impact on fixed-wing or helicopter operations at Christchurch International Airport, and no impact on Airways’ surveillance systems or air traffic services based on the Cyrrus analysis. While potential operational effects are identified for the Garden City Helicopters heliport, including possible changes to southern flight paths, Mr Bermingham concludes that such impacts would not result in significant costs. Similar conclusions are also reached by Andrew Selley of Fenix Flight Training Ltd, who considers that no significant operational impacts on CIAL or Airways are anticipated, and that any mitigation measures required would be minor, consistent with standard aviation practice, and limited in cost relative to the Project’s economic benefits.



These conclusions are further supported by Bem Hargreaves of the L+R Group, who agrees with the views expressed by the aviation specialists that there would be no significant operational impacts on CIAL or Airways, and that any potential operational constraints or costs (if any) would be relatively minor in comparison with the economic benefits of the proposal as outlined in this Economic Assessment.

From an economic perspective, this technical evidence is relevant because it provides context regarding both the likelihood and potential magnitude of aviation-related mitigation costs. In particular, it supports the conclusion that costs of the scale required to materially offset the Project's regional economic contribution would be unlikely.

4.5 Overall Conclusion on Costs and Regional Significance

For claimed operational constraints on CIAL/Airways to materially affect the Project's regional significance, they would need to be both clearly attributable to the Project and exceptionally large in scale. At present, there is no evidence that costs approaching this magnitude are either probable or plausible. The assertions remain speculative and unquantified, and therefore cannot reasonably be relied upon to diminish the Project's established regional economic contribution.

5. Decision-Making Context

The analytical approach adopted in this assessment is consistent with the reasoning applied in recent fast-track approvals decisions, including the Waihi Mine case. In that decision-making context, findings on regional or national significance have been grounded in the scale, durability, and net nature of economic benefits, with recognition that projects may evolve through design refinement and mitigation without losing their strategic significance. Claimed adverse effects or costs on third parties have been afforded weight only where they are clearly specified, robustly evidenced, and demonstrably material relative to a project's benefits. This assessment of the Ryans Road Industrial Development applies the same principles by testing the robustness of regional significance to changes in project scale and by identifying the scale at which any alleged third-party costs, if substantiated and quantifiable, would become material when assessed relative to the Project's quantified regional economic contribution.