Delmore Fast Track Application

Appendix 8: A02 (Economics) to Response to Comments letter

From: William Kaye-Blake, NZIER

Date: 5 June 2026

Re: Economics – response to Annexure 1 and Annexure 2 to Auckland Council Response

1.1 Introduction

This memorandum responds to the Technical Specialist Memos prepared by Auckland Council for **Funding and Financing** and **Economics** in relation to the above fast-track application. This response addresses:

- Further information requests / technical queries.

The key result from my economic evidence still holds: approving the application for the Delmore development will create net benefit for the region and have a positive regional economic impact.

The objections raised by Auckland Council do not change the result. They are mainly about process: technical disagreements about this or that method used to make calculations. They do not alter my central finding. They do not provide dollar-value quantification of changes in costs or benefits that are large enough to do so.

Auckland Council seems to believe that it doesn't matter for residents when houses get built, because a house in 2050 is as good as a house now. At the same time, it matters very much to Auckland Council and Watercare when infrastructure gets built, and they claim that decisions made now that might change infrastructure plans in 2050 impose too great a cost.

My position is that having a house now is better than the promise of a house later. The Delmore development is well into the design process, and Vineway is ready to start the build now. By contrast, other housing in live zones and FUZ are less certain. Auckland Council offers up other locations that do not have detailed master plans and suggests that they are just as likely to happen as Delmore. In the language of economics, we should down-weight those alternatives to account for the uncertainty and risk involved in achieving them. In other words, a bird in the hand is worth two in the bush.

This is not just my position. The Infrastructure Commission and Treasury as well as academic literature have also pointed to the potential benefits of building more houses and the economic damage being done to Auckland and New Zealand by a lack of housing supply.

The following table responds to each specific point raised by Council.

This memorandum includes the following attachments:

- **Attachment A: Peer review of Economics Assessment by Insight Economics**
- **Attachment B: IGC Analysis**

1.2 Response to Further Information Requests / Technical Comments

Information Request / Technical Comment from Council under section 53 FTAA	Applicant Response under section 55 FTAA
A2: Disagreement about multiplier analysis and cost-benefit framework We have engaged with Auckland Council to understand its disagreement with how approach and what it considers to be an acceptable economic analysis. Our understanding from that engagement is that the only acceptable approach is a computable general equilibrium (CGE) analysis using the social cost-benefit analysis (CBA) framework specified by Treasury in their 2015 report.	We do not agree that the only acceptable economic analysis is CGE. In our view, a cost-benefit analysis focused on economic benefits and comparable economic costs using multiplier analysis, like we have prepared, is acceptable. We understand it is consistent with the FTAA and that this is addressed **Appendix 1 to the Response to Comments letter (Overarching Legal Memorandum).** **First**, NZIER has analysed the substantive applications for all the FTAA applications that have been approved. • Seven housing projects have been approved (see table below). All seven used multiplier analysis. • Of the 21 applications approved, 18 used multiplier analysis. None used CGE analysis. We consider that using multiplier analysis is acceptable because it has been an accepted technique for economic analysis. **Second**, we also maintain that it is helpful for understanding questions about economic impact. The limitations of multiplier analysis are well known; it is because they are well known that Auckland Council can confidently refer to them. However, that also means that *interpreting* the results from multiplier analysis and *understanding* what they mean for decision-making is relatively easy. These points are discussed in my evidence in section 4.5 (pp. 8-9). **Third**, our economic evidence provided additional analysis about alternative uses of economic resources, to address common criticisms of multiplier analysis. That analysis helps inform the Panel about the potential impacts of economic displacement. Usually, multiplier analysis looks just at the economic activity of the project being proposed. I also looked at the value of displaced economic

	activity. I did this with a second multiplier analysis that estimated lost production from moving workers and investment into the housing industry. Auckland Council's preferred approach (CGE) estimates both at once: both the proposed activity and the displacement. I analysed both, but as a two-step process. I found that the direct and indirect **benefits** of construction were $679 million, while the **cost** from displacement was only $344 million. Just for that trade-off, the benefit-to-cost ratio was 2.0. **Fourth**, the Auckland Council's preferred method, CGE modelling, also has methodological issues. CGE models use a set of assumptions about the way the economy works. These assumptions, called closure conditions, are subject to debate and change from analysis to analysis. In prior work, NZIER assessed the impact of different assumptions and found that they materially affected modelling results. Thus, CGE modelling comes with its own set of issues, a fact that Auckland Council has not addressed in its comments. For example, in my evidence for New Zealand King Salmon's Blue Endeavour application, I conducted CGE modelling under two sets of closure conditions. This work showed the difference in results between the 'flexible' and 'inflexible' assumptions. The upshot is that there can be different results from using different inputs for the CGE model, so the method itself would not bring the certainty around economic analysis that Auckland Council suggests. **In conclusion**, we believe that our approach is accepted, acceptable, and reliable. It provides a fit-for-purpose analysis that usefully informs the Panel about economic impacts. Using a different approach to the economic analysis would not provide the Panel with considerably more information or greater clarity.
A2: Disagreement about value of additional housing	The value of additional housing is a figure that has to be estimated. In estimating it, we have to be mindful that there is a shortage of housing, due in part to regulations that, according to the Infrastructure Commission and the Housing

	Technical Working Group, limit the housing supply in Auckland. Because of the regulations, the price of houses does not represent their value in a perfect market, which is a typical starting point for economic analysis. Economists have to dig deeper and make calculations to uncover the true value of housing. I provided different ways to calculate that additional value. Dr Meade has presented yet another approach. All of them show that more housing has benefits, under reasonable assumptions. Using a cost approach, the value is $80.7 million. This benefit is the result of greater productivity and economies of scale. The Productivity Commission, the Infrastructure Commission, and the academic literature have all pointed to the benefits to New Zealand of increasing productivity through economies of scale. Using a demand-focused approach for the Auckland market, the benefit is $904 million. Each additional housing unit has a small impact on average prices. Multiplied across all housing across 25 years, the total impact is substantial. Dr Meade in the Auckland Council memo of 04 May 2026 also calculated substantial benefit given reasonable assumptions. Under most assumptions, Delmore generates between $100 million and $250 million in benefit. His result is negative only when he assumes the total market is just 243 or 486 annual house sales (1% or 2% of 24,315). To translate that assumption into house-buying behaviour, it means that each buyer looks at only two or four options before they buy a house (e.g., the 120 Delmore houses annually compared to a market of 243 houses). Another reason that we believe in the benefits of more housing is because of government research on the topic. The Housing Technical Working Group (Treasury, Ministry of Housing and Urban Development, and the Reserve Bank) reported: 'We find direct evidence of restrictions on the supply of urban land in Auckland. For example, these restrictions are estimated to add $378.4 per square metre to the price of urban land…'

	('Analysis of availability of land supply in Auckland, 30 November 2024, p. 2). This impact equates to $189,200 for a 500m^2 section. This figure shows that relaxing Council restrictions can have a material impact on housing prices, which is a purpose of the FTAA. The New Zealand Infrastructure Commission has analysed the housing market. In a March 2022 report, they found that restrictive urban planning policies reduced the housing supply and artificially inflated house prices. Auckland Council has stated (*Boosting Auckland's productivity*, 2025) that 'High housing costs make it harder to attract and retain skilled workers.' A final question is whether the Delmore development would increase the total number of houses or simply displace other residential building. Auckland Council suggested we look at the work of Dr Ryan Greenaway-McGrevy to understand displacement effects (whether Delmore would simply substitute for a similar number of housing units). We did. We specifically referred to his analysis with Dr Peter Phillips in 2023, 'The impact of upzoning on housing construction in Auckland'. They did not find a significant displacement effect. They found that upzoning led to more housing units. That is, allowing people to build more houses led to more houses being built. Their results suggest that approving the Delmore application will increase the number of homes built in Auckland. The analysis from both myself and Dr Meade shows that building more houses brings their cost down and has an economic benefit.
A2: Disagreement about alternative uses of resources	Auckland Council has argued that Delmore would simply replace other construction activity, other economic activity, and other housing. It argues that the 'opportunity cost' of Delmore – the economic activity without it – is just equal to the value of Delmore. If one is subtracted from the other, the difference is zero. Their conclusion is thus that Delmore has no economic benefit. We disagree with that analysis and conclusion. The point of our analysis was to compare two different

	uses of the same resources. The Stats NZ input-output table shows how labour and capital (workers and investment) are turned into economic output. We have used that information – collected by official government statisticians working to international standards for Tier 1 statistics – to estimate (a) output if resources are used for Delmore and (b) output if resources are used in the general economy. We have done the analysis. It shows that using workers and investment for Delmore creates more value than using them elsewhere in the economy. That is the meaning of our analysis. As to the argument that Delmore would simply replace other construction activity, we have discussed that above. Peer-reviewed research has demonstrated that allowing more house-building leads to more housing being built. Second, Auckland Council has argued that the infrastructure necessary for Delmore is also necessary for other houses. The argument is that Delmore does not represent a net gain in housing because infrastructure is the limiting factor and limits the total number of houses. Nevertheless, humans live in time. While the same total number of houses might be built by 2050, the timing of the builds is relevant to people. Building a house now rather than in 2049 gives its residents 23 years of occupancy. That is time to have a family, raise children to adulthood, etc. This idea can be expressed geometrically. Two curves can start and end at the same points but have different areas underneath them (different integrals). Those areas can be estimated or calculated and compared with each other to measure the benefits of more housing.
A1: Out-of-sequence development	The Funding and Financing memo raises the issue that the Delmore development is out of sequence with the infrastructure planning by Auckland Council. Auckland Council argues that it would like its infrastructure to service other FUZ land first. This is a less efficient use of economic resource. First, Auckland Council suggests that it wants to build infrastructure and then bank it for future use.

	What that means in plain terms is that it wants to build infrastructure and then not use it. The point of infrastructure is to use it. It is not generating value for the people of Auckland just sitting unused. Put differently, unused infrastructure represents an opportunity cost. The resources that went into it could have been used elsewhere in the economy to generate benefit now. Second, the benefit of building Delmore now is that it can make use of new infrastructure. That reduces the time that the infrastructure is idle and generates economic benefit. This is similar to the concept above: building house sooner and using infrastructure sooner generates more economic value overall than waiting until later. Third, Auckland Council would receive the direct benefit of payments from Delmore. The Council could start charging for the use of its infrastructure sooner, generating more revenue and paying for the infrastructure sooner. Even if the total number of houses is the same in the end, Auckland Council would have greater total revenue if could charge annual rates and fees over a longer period of time, or if it could receive development contributions sooner. Finally, the memo raises the possibility of higher costs due to out-of-sequence development. However, the memo also notes that these costs may be mitigated. In the end, we do not have a clear estimate of the costs. We do, however, have a clear understanding of the benefits: more houses sooner, which will benefit the future residents of Delmore and Auckland in general. I would also like to draw attention to the attached spreadsheets that consider the Watercare Infrastructure Growth Charge (IGC). At current rates, the nominal (undiscounted) total cost for IGCs from Delmore will be $26.0 million. The net present value (NPV) of those IGCs if collected 2028-2036 is $16.6 million. If those IGCs are collected 2050-2058, the NPV is just $3.1 million. That is an additional $13.5 million in value if Watercare permitted more flexibility in its sequencing.

Table 1 Approved FTAA housing applications

Name	Firm	Authors	Method	Number of houses	Other development
Arataki	Property Economics	Phil Osborne Tim Heath	Multiplier	170 residential	
Ashbourne	Insight Economics	Fraser Colegrave Danielle Chaumeil Nicholas Keith	Multiplier	530 residential 250 retirement	Supporting health & community facilities Commercial node 2 solar farms Greenway
Homestead Bay	Urban Economics	*Not available*	Multiplier	2,800 residential	30,000m^2 commercial land
Maitahi Village	Property Economics	Phil Osborne	Multiplier	182 residential 192 retirement	Community facility 5,500m^2 commercial & cultural land
Milldale – Stages 4C and 10 to 13	Insight Economics	Fraser Colegrave Danielle Chaumeil Nicholas Keith	Multiplier	1,100 (earthworks only)	Part of larger development area
Rangitoopuni	Property Economics	*Not available*	Multiplier	210 residential 350 retirement	Retirement village amenities
Sunfield	Property Economics	Phil Osborne Tim Heath	Multiplier	3,400 residential 600 retirement	Proposed community facilities

Source: NZIER and New Zealand Government

Attachment A: Peer review of Economics Assessment by Insight Economics

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Auckland 1010
New Zealand

INSIGHT ECONOMICS

Technical Memo

To:	Delmore Project Team/Expert Panel	From:	Insight Economics
Date:	Friday, 22 May 2026	Pages:	7 (including this one)
Subject:	Independent Peer Review – NZIER Economic Assessment (December 2025)		

Context

This memorandum provides an independent peer review of the economic assessment prepared by NZIER, dated December 2025 (**the Report**), in support of the proposed Delmore Development (**the proposal**). The proposal comprises approximately 1,200 dwellings on Future Urban Zone land in Orewa West, Auckland, and is the subject of a substantive application lodged under the Fast-track Approvals Act 2024 (FTAA). The site is not scheduled for live zoning until at least 2050, so the application therefore effectively seeks to bring forward the timing of an anticipated greenfield.

Scope and Purpose of Peer Review

The purpose of this peer review is to assess whether the Report provides a sufficiently robust, transparent, and proportionate evaluation of the proposal's economic effects to inform decision-making under the FTAA. The review does not seek to replicate the modelling, audit individual inputs, or produce an independent impact assessment. Rather, it interrogates the methodological framework, the principal assumptions, the internal logic of the analysis, and the extent to which the conclusions reached are supported by the evidence presented.

Overview of the Report and Key Findings

The Report applies a combined cost-benefit analysis (**CBA**) and multiplier-based economic impact analysis (**EIA**) framework to estimate the proposal's economic effects. It identifies, quantifies and discounts a wide range of costs and benefits, and reports a net regional benefit to Auckland of $1.23 billion, corresponding to a benefit-cost ratio (**BCR**) of approximately 4.0. The corresponding national figures are a net benefit of $1.21 billion and a BCR of 4.2.

General Observations

The Report is, in our view, a well-structured and comprehensive treatment of the proposal's likely economic effects. It pairs a quantified CBA with a qualitative discussion of regional significance, and engages directly with the central FTAA question of whether the proposal delivers regional benefits commensurate with its costs. It also identifies the principal trade-offs – including the opportunity costs of land and resources, displaced agricultural production, and non-market environmental effects – rather than confining the analysis to only gross benefits.

Subject to the qualifications set out below, we consider that the Report provides a defensible evidential foundation for concluding that the Delmore development would deliver significant regional economic benefits for FTAA purposes. That conclusion is consistent with the order-of-magnitude results we typically observe for large-scale peri-urban residential projects in Auckland.

Assessment Framework and Methodology

The Report adopts a dual-method approach: CBA as the primary welfare framework, supplemented by multiplier-based EIA to characterise the scale of construction and operational activity. This is a

conventional and defensible structure. Multiplier analysis is well-established as a means of capturing direct and flow-on activity effects, and has been routinely accepted by FTAA expert panels to date.

The well-known limitations of multiplier analysis – the assumption of fixed input proportions, the absence of capacity constraints, and the absence of any price-mediated adjustment – are explicitly acknowledged on pages 8 and 9 of the Report. The Report goes on to mitigate these limitations by reporting both Type I and Type II results, and by adopting the more conservative Type I figures (which exclude induced consumption effects) as its primary estimate. That is the same convention we apply, and we regard it as the appropriate treatment in an FTAA context.

Scope of Assessment & Counterfactual

The scope of costs and benefits considered in the CBA is, in our view, appropriate. Table 1 sets out the analytical steps in a clear and replicable manner, and the counterfactual is correctly specified: in the absence of the application, development of the Delmore site is not expected to occur until at least 2050. The relevant benefit is therefore the value of bringing forward this development, rather than any permanent net addition to housing supply in perpetuity. That is the economically correct framing.

One minor presentational observation is that the link between the counterfactual described in Section 2.3 and the way it is operationalised in the subsequent calculations could be drawn more explicitly. This does not affect the substance of the analysis but would improve the legibility of the Report for non-specialist readers.

Assessment of Key Benefits

Value of Additional Housing Supply (Methods A, B and C)

Section 5.1 of the Report presents three alternative methods for monetising the benefit of additional housing supply. Attempting to quantify a benefit that is commonly treated qualitatively is itself a useful contribution, and we welcome the transparency with which the three methods are presented side by side. The choice of method is, however, consequential, and warrants some scrutiny.

Method A – the change in consumer surplus arising from a small outward shift in the supply curve – is, in our view, the only one of the three methods that is unambiguously correct as a measure of net welfare gain. It yields a comparatively modest value, but that is a feature rather than a defect.

Method B (price savings from lower marginal construction costs) is presented as illustrative of unrealised scale economies. The underlying logic is plausible, but the empirical basis for assuming a $100,000 cost saving per dwelling is thin, and the Report itself flags this.

Method C – the aggregate value of price suppression across all Auckland house sales – generates the largest headline figure and is adopted as the Report's preferred estimate. We respectfully disagree with that choice. The figure produced by Method C is, in substance, a transfer from existing landowners to future buyers rather than a net welfare gain to society. The Report acknowledges this on page 13 but proceeds to rely on the value regardless. While we agree with the broader policy point made elsewhere in the Report – that the artificial scarcity rents created by restrictive land-use planning are themselves an inefficiency – the appropriate welfare-economic estimate of that inefficiency is not the gross transfer. Method C's figure is best interpreted as an upper bound, or as

an indicator of the scale of the wealth-transfer effect, rather than as a directly comparable net benefit estimate.

Crucially, however, this is a only a methodological point. Even if Method A is adopted in place of Method C, the Report's sensitivity analysis (Appendix E) confirms that the overall conclusion of significant regional net benefit holds, with a BCR comfortably above 1.0 in all scenarios tested.

Construction Activity

The Report treats construction activity as a regional economic benefit. We agree with this treatment in an FTAA context: while a pure welfare-economic CBA would treat construction labour and capital as inputs rather than benefits, the regional GDP, employment and income generated by a project of this scale are legitimately of interest to expert panels and decision-makers, and are routinely reported in comparable assessments. Importantly, the Report's primary estimate uses the more conservative Type I (direct plus indirect) multipliers, which is the treatment we would recommend.

Infrastructure, Development Contributions and Non-Market Benefits

The Report's treatment of wastewater and roading infrastructure as enabling rather than constraining the project is consistent with the evidence presented. We do, however, depart from the Report on the inclusion of development contributions (Section 5.4) within the CBA. Development contributions are a fiscal transfer from the developer to Council, and as such are typically presented outside the. The Report's decision not to count them as a benefit limits the practical significance of this point, but the framing could be tightened.

More substantively, several of the quantified non-market benefits in Section 5.5 sit at the boundary of the economist's domain. These items – particularly those relating to environmental and amenity values – are, in our experience, more reliably assessed qualitatively by the relevant subject-matter experts, with the economic assessment then cross-referencing those conclusions rather than attempting independent monetisation. The dollar values reported are in any case modest relative to the principal benefits, so the practical effect on the bottom line is immaterial. Removing them would, however, sharpen the boundary between the economic assessment and the other technical evidence before the panel.

Assessment of Key Costs

Opportunity Cost of Resources Used in Construction

Section 6.4 is, in our view, one of the more methodologically interesting contributions of the Report. By estimating the contribution that the labour and capital deployed in construction would have made elsewhere in the economy at average productivity, and netting that against the same factors deployed in the (above-average productivity) construction sector, the Report provides a transparent answer to a standard criticism of multiplier-based assessments – namely, that they overstate net benefit by implicitly treating resources as costless. The treatment here is conservative and adds materially to the completeness of the analysis.

Displaced Agricultural Production

The treatment of foregone agricultural production in Section 6.3 is sound. The use of Beef + Lamb New Zealand benchmark revenues for the relevant farm class, applied to the effective productive area and discounted over the relevant horizon, is consistent with conventional practice. The resulting

opportunity cost is small in absolute terms, as one would expect for peri-urban pastoral land of this type.

Non-Market Costs

The same observation we made in respect of non-market benefits applies to the non-market costs: they are more reliably assessed qualitatively by the relevant subject-matter specialists, and the dollar values in the Report are modest enough that their inclusion or exclusion does not materially change the result. Our preference would be to cross-reference, rather than independently monetise.

Sensitivity Analysis and Uncertainty

The sensitivity testing presented in Appendix E varies the discount rate and the assumed housing-supply benefit method across a plausible range, and in every case the BCR remains comfortably above 1.0 for both Auckland and New Zealand. This is reassuring – particularly because, as noted above, the choice between Methods A and C is the single largest source of uncertainty in the analysis. The robustness of the result across that range is, in our view, the single most important finding from the sensitivity work.

Key Finding: Significant Regional and National Benefits

Notwithstanding the qualifications set out above, we consider the Report to provide an adequate evidential basis for the conclusion that the proposal would deliver significant regional economic benefits within the meaning of the FTAA. The principal reasons for this view are as follows:

- **Scale of net benefit**. Even when the housing supply benefit is anchored to Method A rather than Method C, the analysis returns a strongly positive BCR for both Auckland and New Zealand. The estimated net benefits are material in absolute terms and clearly meet any reasonable threshold for regional economic significance under the FTAA.

- **Acceleration of housing supply**. The Report's framing of the benefit as the acceleration of an otherwise-deferred development is, in our view, economically correct. The 25-year time-shift in availability is a real and meaningful benefit to both individual households and the broader regional economy, and is properly captured in the discounting framework adopted.

- **Construction economic activity**. The construction of approximately 1,200 dwellings over a ten-year build programme is a substantial injection of activity into the regional economy. The associated GDP, employment and income effects are robustly estimated using conventional Type I multipliers, and are netted against an explicit estimate of the opportunity cost of the resources involved.

- **Robustness to sensitivity testing**. The Report's central conclusion is robust to the parameter and methodological variations tested in Appendix E. We regard this as the most important reassurance offered by the analysis, given the inherent uncertainty in long-horizon CBA work of this kind.

Areas of Minor Difference in Professional Opinion

For completeness and transparency, we record below the points on which our professional judgement differs from that of the Report's authors. None of these points alters our overall support for the

Report's conclusions, but they are matters on which expert panels may reasonably wish to be aware of an alternative view:

- Housing supply benefit method: Our preferred estimate of the housing supply benefit is Method A (consumer surplus). Method C, while intuitively appealing, primarily measures a transfer from existing landowners to future buyers, and so overstates the net welfare gain to society. We would not adopt Method C as the headline figure.

- Development contributions: Development contributions are properly characterised as a fiscal transfer from developer to Council, designed to defray the public cost of new infrastructure. They sit more naturally outside the CBA framework.

- Non-market items: We would prefer to see non-market benefits and costs cross-referenced to the relevant subject-matter experts rather than independently monetised within the economic assessment. The values in question are small, and their inclusion does not affect the result, but the boundary between the economic evidence and the other technical disciplines could be drawn more cleanly.

- Auckland versus national multipliers: Some of the Auckland Type I and Type II multipliers used in the analysis are larger than their national counterparts, which readers may find counterintuitive (national figures usually exceed regional ones, since national supply chains are more integrated). A short explanatory note in the Report would address the point.

Conclusion relating to original NZIER economics assessment

Taken in the round, the Report is a robust, transparent and proportionate economic assessment of the Delmore proposal. It adopts a conventional and fit-for-purpose methodology, treats benefits and costs in a balanced manner, and engages directly with the central FTAA question of whether the proposal delivers regional benefits commensurate with its costs.

The headline conclusion – that the proposal would generate a significant net benefit to the Auckland region and to New Zealand, with a BCR of approximately 4.0 – is, in our view, well-supported by the evidence and robust to a reasonable range of alternative assumptions. The areas in which our professional judgement differs from that of the Report's authors are confined to matters of methodological preference and presentational refinement, none of which matters to the result.

On the material before us, it is reasonable to conclude that the Delmore development would deliver significant regional economic benefits for the purposes of the FTAA, and that the Report provides an adequate and credible evidential foundation for that conclusion.

NZIER response to comments on application

I have reviewed NZIER's responses to comments made about their assessment by Auckland Council. I agree with all NZIER's responses and make the following additional comments in response too.

Regarding the Council's disagreement with the CBA and EIA framework used by NZIER

In my view, the FTAA does not require a social CBA or CGE modelling. It does not refer to any of these things. The Act's evaluation framework under section 85(3) is expressly a proportionality test,

not a mathematical balancing of monetised costs and benefits. In addition, I note that multiplier-based EIA using input-output (I-O) tables has been adopted in virtually every FTAA economic assessment to date.

I also do not agree with the Council that CGE is necessarily preferable. CGE models are generally not designed to operate at the fine-grained geographic level relevant to an individual development project in a specific Auckland sub-market. Applying a national or regional CGE model to the question of whether an approximately 1,203-dwelling development in Orewa West generates significant regional benefits risks a fundamental mismatch between the tool and the question.

CGE and general equilibrium approaches require supply and demand elasticity data at a fine spatial granularity that simply does not exist for individual Auckland sub-markets. In the absence of that data, a CGE-based CBA would be purely assumption-driven, with results highly sensitive to the assumed elasticity values and even small changes producing materially different end results. The Council's preferred methodology is therefore no more reliable than the I-O-based approach adopted in this Report — and in several respects is less reliable, because it creates a spurious impression of precision while concealing equally significant uncertainties.

Regarding the Council's disagreement about the value of additional houses

It is worth noting that, even on the Council's own corrected figures (drawn from Dr Meade's analysis), the net present value of consumer surplus less producer surplus is approximately $249 million, assuming Delmore represents 100% of the Auckland housing market. The Council presents this as damaging to our Report, but $249 million in present value terms is itself a substantial and regionally significant benefit, before any other categories of benefit are counted. Dr Meade's own sensitivity table indicates that, using a more realistic market share of 10–20%, the corrected net surplus remains in the range of approximately $187–$222 million in present value terms. These are not trivial figures.

I also note the reports NZIER has referred to in its response, and in particularly the Council's own productivity research and the Housing Technical Working Group analysis. These documents are contrary to the Council's current approach to this application. In my view, the Council cannot simultaneously maintain that housing supply constraints impose economic costs (as its own productivity research and the Housing Technical Working Group analysis confirm) and that removing those constraints generates no economic benefit. NZIER's conclusion, that we agree with, that accelerating housing supply in Orewa West generates significant economic benefits is entirely consistent with the Council's own evidence base on Auckland's housing affordability problem.

Regarding the Council's disagreement about alternative uses of resources

As a framing point, the Council's argument that construction expenditure should be treated purely as a cost reflects a project-level accounting perspective that is only viewpoint. Given the explicit requirement to assessment economic benefits at the regional or national level, this project-level accounting perspective is - in our view – misplaced. Indeed, the Council's position, applied consistently, would imply that no construction project could ever demonstrate a net economic benefit under a CBA — because construction expenditure always exceeds the developer's short-run accounting value of the asset constructed. That cannot be the right framework for assessing projects whose purpose is, in part, to generate employment and economic activity at a regional scale.

Further, and more fundamentally, the degree of displacement that the Council's argument requires — to reduce the BCR below 1.0 — is extremely large. It would require virtually all the proposed construction activity, housing benefits, and infrastructure investment at Delmore to be exactly offset by equivalent reductions elsewhere in the Auckland economy. That is highly unlikely given Auckland's scale of unmet housing need and the long lead times for alternative sites in the northern suburbs. The Council's related claim that construction workers for Delmore would necessarily be drawn from higher-productivity uses — such that the net GDP impact would be zero or negative — is not supported by evidence on the behaviour of Auckland's construction labour market over the past two decades.

Sincerely,

Fraser Colegrave
Managing Director

Attachment B: IGC Analysis

Value of Infrastructure Growth Charge Now

Value of Watercare IGC

Question: What is Watercare's foregone revenue from uncollected IGCs?
Answer: $26 million by 2036 (with discounting, $16.6 million in present value.)

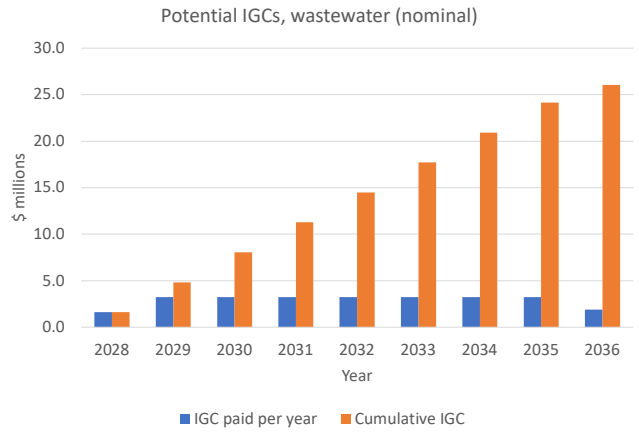
Total houses	1213
House built per year	150
IGC, wastewater, excl. GST	$21,463
Discount rate	0.08
Current year	2026

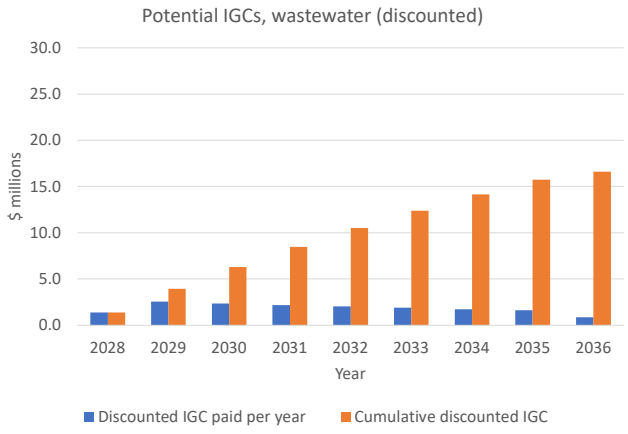
Cells in orange are input cells

Year	2028	2029	2030	2031	2032	2033	2034	2035	2036
Houses built annually	75	150	150	150	150	150	150	150	88
Cumulative houses built	75	225	375	525	675	825	975	1,125	1,213
IGC per house ($)	21,463	21,463	21,463	21,463	21,463	21,463	21,463	21,463	21,463
IGC paid per year ($)	1,609,725	3,219,450	3,219,450	3,219,450	3,219,450	3,219,450	3,219,450	3,219,450	1,888,744
Cumulative IGC ($)	1,609,725	4,829,175	8,048,625	11,268,075	14,487,525	17,706,975	20,926,425	24,145,875	26,034,619
Values in $ million for graphing:									
IGC paid per year	1.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2	1.9
Cumulative IGC	1.6	4.8	8.0	11.3	14.5	17.7	20.9	24.1	26.0

Discounting calcuations

Year	2028	2029	2030	2031	2032	2033	2034	2035	2036
Years from current year	2	3	4	5	6	7	8	9	10
Discounting factor	0.86	0.79	0.74	0.68	0.63	0.58	0.54	0.50	0.46
Discounted IGC paid per year	1.4	2.6	2.4	2.2	2.0	1.9	1.7	1.6	0.9
Cumulative discounted IGC	1.4	3.9	6.3	8.5	10.5	12.4	14.1	15.8	**16.6**





End

Value of Infrastructure Growth Charge in 2050

Value of Watercare IGC

Question: What is Watercare's revenue when it does collect IGCs?
Answer: $26 million by 2058 (with discounting, $3.1 million in present value.)

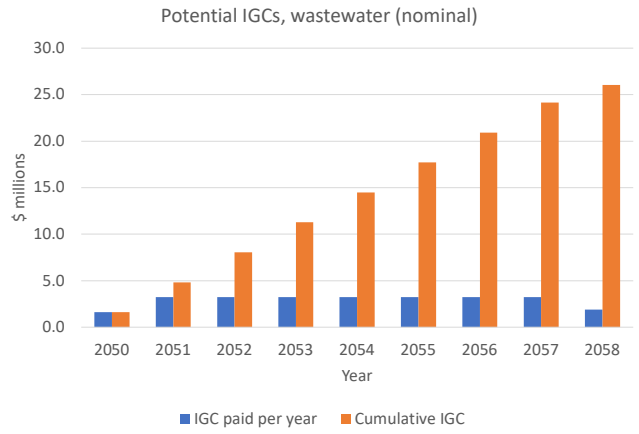
Total houses	1213
House built per year	150
IGC, wastewater, excl. GST	$21,463
Discount rate	0.08
Current year	2026

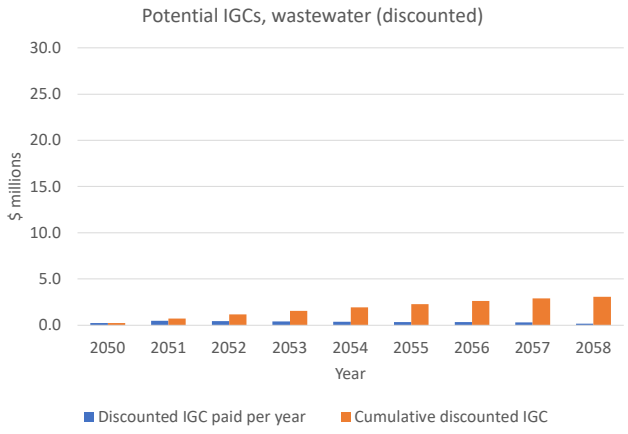
Cells in orange are input cells

Year	2050	2051	2052	2053	2054	2055	2056	2057	2058
Houses built annually	75	150	150	150	150	150	150	150	88
Cumulative houses built	75	225	375	525	675	825	975	1,125	1,213
IGC per house ($)	21,463	21,463	21,463	21,463	21,463	21,463	21,463	21,463	21,463
IGC paid per year ($)	1,609,725	3,219,450	3,219,450	3,219,450	3,219,450	3,219,450	3,219,450	3,219,450	1,888,744
Cumulative IGC ($)	1,609,725	4,829,175	8,048,625	11,268,075	14,487,525	17,706,975	20,926,425	24,145,875	26,034,619
Values in $ million for graphing:									
IGC paid per year	1.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2	1.9
Cumulative IGC	1.6	4.8	8.0	11.3	14.5	17.7	20.9	24.1	26.0

Discounting calcuations

Year	2050	2051	2052	2053	2054	2055	2056	2057	2058
Years from current year	24	25	26	27	28	29	30	31	32
Discounting factor	0.16	0.15	0.14	0.13	0.12	0.11	0.10	0.09	0.09
Discounted IGC paid per year	0.3	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.2
Cumulative discounted IGC	0.3	0.7	1.2	1.6	1.9	2.3	2.6	2.9	**3.1**





End

Table of Watercare IGC

Area	Water and wastewater		Water only		Wastewater only	
	Excluding GST	*Including GST*	*Excluding GST*	*Including GST*	*Excluding GST*	*Including GST*
Metropolitan[1]	$21,267.00	$24,457.05	$10,633.00	$12,227.95	$10,633.00	$12,227.95
Beachlands and Maraetai (wastewater only)	$14,367.00	$16,522.05	N/A	N/A	$14,367.00	$16,522.05
Helensville and Parakai[5]	$40,234.00	$46,269.10	$20,117.00	$23,134.55	$20,117.00	$23,134.55
Kawakawa Bay (wastewater only)	$50,319.00	$57,866.85	N/A	N/A	$50,319.00	$57,866.85
Northeast sub-regional[2]	$31,565.00	$36,299.75	$10,100.00	$11,615.00	$21,463.00	$24,682.45
Omaha/Matakana/Point Wells (wastewater only)	$13,942.00	$16,033.30	N/A	N/A	$13,942.00	$16,033.30
Owhanake[3] (wastewater only)	$46,179.00	$53,105.85	N/A	N/A	$46,179.00	$53,105.85
Southwest sub-regional[4]	$34,146.00	$39,267.90	$10,586.00	$12,173.90	$23,562.00	$27,096.30
Wellsford	$33,829.00	$38,903.35	$14,545.00	$16,726.75	$19,282.00	$22,174.30

Source: Watercare website. Business: water services and wastewater charges and IGC. Prices effective from 1 July 2025.

End