Delmore Fast Track Approvals Act Application – Review of Economic Analyses

Tim Denne, 13th August 2025

1 Background

I have been asked to review the economic analysis submitted as part of the application for the Delmore residential subdivision under the Fast Track Approvals Act 2024 (FTAA) and the Auckland Council commentary. This comprises an initial report by Urban Economics (UE) for the applicant,[1] a response from Auckland Council[2] that included a peer review by Dr Richard Meade,[3] and an updated report by UE.[4]

These reports provide useful background information that might be useful inputs to other criteria being used for the analysis, but I find the UE analysis to be inadequate relative to the key economic benefit criteria of the FTAA. Taken together, the FTAA's decision criteria seem clearly to require an assessment of the benefits of the project and any offsetting costs. In other words, it requires a regional and/or national cost benefit analysis (CBA) as suggested by Auckland Council. However, I believe the analysis can be undertaken more simply than suggested by the Council or its peer reviewer. This is particularly through taking account of the oft cited Alonso–Muth–Mills (AMM) urban model used to analyse urban housing markets which would suggest little change in wellbeing for house purchasers from a move to the Delmore site, and that much of the net value of the development can be obtained through an assessment of the change in land value following rezoning to housing.

In this report I examine the analysis provided by UE and the Council, I then set out my thoughts on how an analysis should be provided, while drawing out any conclusions I can from the material presented.

2 Analysis to date

2.1 Urban Economics

2.1.1 Housing market background

UE has provided a report that sets out the following as background to the economic assessment. It argues first that there is a need for more housing developments on greenfield sites such as is proposed for Delmore.

[1] Urban Economics (2025a) Proposed Delmore Residential Development, Hibiscus Coast, Auckland. Economic Assessment. Report for Vineway Ltd. 13/02/2025.
[2] Stewart J (2025) Delmore Fast Track. 25/06/2025 - Auckland Council Response. Annexure 2: Economics. Auckland Council.
[3] Meade R (2025) Delmore Fast Track. 25/06/2025 - Auckland Council Response. Annexure 3: Economics (Peer Review). Auckland Council.
[4] Urban Economics (2025b) Proposed Delmore Residential Development, Hibiscus Coast, Auckland. Economic Assessment. Report for Vineway Ltd. 30/06/2025.

- House prices in Auckland have risen and continue to rise. This is making housing unaffordable for many people leading to an outflow of population from Auckland both to regional New Zealand and overseas.
- To address this issue there is a need for the construction of more affordable housing.
- Houses on greenfield land are generally lower priced than infill houses. Affordability is also enhanced by smaller plots and smaller houses. However, rates of development of greenfield land for housing is significantly less than is targeted in the Auckland Unitary Plan (AUP) and Future Development Strategy (FDS), with priority being given to infill sites.
- UE suggests the Delmore houses would have average prices below $1 million and that this is lower than average for new housing in Auckland and the market close to the Delmore site.

UE then suggest that there are additional location-specific issues that further justify the project.

- Growth in population and employment is faster than the rate of housing development.
- The new housing that is otherwise being developed locally is more expensive than the Delmore proposal, with larger plots and houses.
- Although there is insufficient capacity at the Army Bay Wastewater Treatment Plant to service the Delmore development, the proposal includes a temporary wastewater system that would be sufficient to service wastewater treatment needs prior to an upgrade they suggest is scheduled for 2031.

2.1.2 Economic assessment

UE assesses the economic benefits in the form of a contribution to GDP and employment. The estimated labour requirement at the site over the period of construction is multiplied by the national estimate of value added (GDP contribution) per employee in the construction sector. This GDP contribution includes direct and indirect impacts, with the indirect impacts further spilt so that a calculation is made of affects on the primary sector to address the criteria for assessing referral applications that include “will support primary industries” (22(2)(v)). The GDP and employment impact is compared to a counterfactual in which the site is used for lifestyle blocks.

The wider discussion of the housing market and the alleged importance of greenfield site development and of more affordable housing is not brought into the economic analysis.

2.2 Auckland Council Review

The Auckland Council Review includes comments by James Stewart and a peer review by Richard Meade.

2.2.1 Stewart Review

Stewart made comments on an earlier draft of the UE report, and I summarise below the comments on aspects that are still relevant to the updated report.

- The absence of any **housing market analysis**, including benefits of more affordable housing from the economic analysis. Mr Stewart argues there is no separate demand for greenfield sites distinct from demand for houses more generally. In addition, the suggestion that greenfield-located houses are lower cost does not take account of the

wider set of costs or benefits of location, particularly travel costs. This point builds on the much cited Alonso–Muth–Mills (AMM) urban model,[5] and is used to question the assertion that greenfield sites are preferred for lower income households.

UE asserts that the lower price of the dwellings proposed is the central economic consideration that underpins the project's significant economic benefits, but no analysis is provided of the incremental value of lower-priced dwellings.

- The treatment of **infrastructure costs –** although using infrastructure capacity is more efficient that having idle capacity, other local developments would require capacity, and there is a need for some spare capacity to "reduce frictions" in housing developments. Infrastructure capacity needs to be built ahead of, and be scheduled to meet, planned demand. Mr Stewart includes a comment from Watercare that implies that the current planned development and utilisation of wastewater infrastructure in the vicinity of the Delmore project would enable its development only after 2050.

- The need for a **different counterfactual** or baseline against which to compare the costs and benefits. Mr Stewart suggests an appropriate baseline would be the FDS timeline in which the Delmore area was not developed until after 2050.

- Instead of the GDP impact analysis, a full **cost benefit analysis** (CBA) should have been provided, monetising costs and benefits to the extent possible, including the spillover effects in other markets (housing and infrastructure), environmental effects and transport costs (including $10m for an arterial road and additional roading suggested by NZTA).

Mr Stewart notes that there is no currently agreed definition of "significant regional or national benefits." He does not draw the conclusion explicitly but hints that the Delmore development may fail on the "significant" criterion. He suggests the proposed development would comprise approximately 1-1.4% of the historical annual growth in Auckland housing supply, while other Auckland developments have been larger.

2.2.2 Meade Review

Dr Meade provides a peer review of the materials presented by Mr Stewart. He agrees with much of the analysis by Mr Stewart and notably:

- The need for a CBA, including the timing of costs and benefits, and appropriate sensitivity and uncertainty analysis. Dr Meade suggests this needs to be at the national level and that it should not justify projects that have net benefits in one region but offsetting net costs in another.[6] Dr Meade also suggests computable general equilibrium (CGE) modelling might be used also to provide an estimate of wider

[5] See, for example, description in PWC (2020) *Cost - benefit analysis for a National Policy Statement on Urban Development*. Final report for the Ministry for the Environment.
[6] The wording in 22(1)(a) and 85(3)(b) talks of regional or national benefits in a way that suggests approval could be gained if the criteria are met at either level, and that the only grounds for decline would be if the analysis failed at both levels.

economic impacts.

- The use of a counterfactual involving the later development of the Delmore site such that the benefits are realised later. However, he also suggests that analysis consider housing elsewhere for those that would be housed in the Delmore project so that the analysis is not of their either being housed or not.

- That there is no distinct market for greenfield housing but that potential buyers trade-off price, dwelling characteristics and locations in evaluating many possible options. Given this, Meade suggests a more thorough review is required of housing demand and the factors contributing to it.

- The absence of any analysis of affordability or the benefits of affordable housing. This includes the absence of any evidence or analysis to justify the assertion that people are leaving Auckland only because of housing costs and affordability.

- The lack of analysis of the opportunity costs of infrastructure provision, including wastewater, transport, schools and medical facilities.

Dr Meade has backed up the analysis by Mr Stewart and has reinforced the points made. However, at time he appears to be suggesting levels of analysis that go beyond what might reasonably be expected.

3 Analytical Requirements

I have provided my comments below addressing the summaries of the others reviews and my own thoughts on what economic analysis is required.

3.1 The Analytical Task

The FTAA sets out the requirements for economic analysis. This includes:

- the criteria for assessing an application. These are that the project would have "**significant regional or national benefits**" (22(1)(a));

- the things the Minister may consider in assessing this, including *inter alia*, whether the project will deliver **significant economic benefits** (22(2)(iv)); and

- the reasons for declining approvals, which include adverse impacts (85(3)(a) **that are sufficiently significant** to be out of proportion to the project's regional or national benefits (85(3)(b)).

It seems reasonable to assume the definition of benefits is that the project will make the lives of New Zealanders better, ie it will improve aggregate wellbeing. This is consistent with the suggestions by Auckland Council and DR Meade for a CBA test to be used. The definition of *significant* is less straightforward. I suggest there are some potential ways in which it might be defined. For example:

1. It is of a **large absolute size**, ie the measured (net) benefits exceed some threshold, in net present value (NPV). Such a threshold might be different for individual regions versus a project of national significance.

2. It makes use of **significantly underutilised resources** including spare infrastructure or network capacity, so that relative costs might be lower than usual for a large development.

3. It produces **large spillover effects** in other markets, eg agglomeration economies, knowledge transfer and innovation, or increased labour mobility, so that the benefits extend well beyond the immediate project.
4. It has **transformational effects** in the wider economy, eg inducing other investment, enabling new industries, or transforming urban environments, so that the wider benefits may be even more significant in the longer run.

Arguably, if a project meets one of criteria two to four, it will also meet criterion one. However, these effects are more difficult to assess quantitatively to include in a CBA. We explore this below.

3.2 Type of Analysis

In this section I discuss the type of analysis that would be best used to capture the net economic benefits of the project.

UE has conducted a form of Economic Impact Analysis (EIA) to estimate GDP effects. The Treasury's comments when comparing EIA with CBA are relevant. They note that EIA "*differs from CBA in that it measures the economic impact of a project, that is to say the activity generated, rather than the net benefit created.* ***Because it measures the activity generated, it treats costs as a benefit***"[7] (emphasis added). As an extreme example, the Treasury notes the positive measured contribution to GDP that would be observed from digging a hole in the ground and filling it in again, with the implication that careful thought is needed before simply using GDP changes as a measure of economic benefit. The Treasury goes on to conclude that "*EIA can provide useful contextual information for decision-makers, but it is not suitable as a tool for measuring the balance of costs and benefits of a decision to society*".[8] Such a balance is exactly what the requirement is for the analysis under the FTAA.

While the Treasury assertion that GDP treats cost as a benefit is well made, it is potentially misleading to some degree. GDP includes estimates of company profit, equivalent to producer surplus. However, using GDP:

- rewards additional activity (in the short run) rather than optimal levels;

- treats labour as a benefit, while it is treated as a cost in CBA (see Box 1); and

- fails to distinguish between types of economic output in terms of the longer run impacts. Housing construction can deliver short-term GDP increases, but in the longer

[7] The Treasury (2015), p54
[8] ibid

run if more capital is invested in housing rather than more productive sectors, GDP will be lower. In this sense, GDP does not capture opportunity cost.

Box 1 Why labour is a cost in a cost benefit analysis

Imagine you decide to build a garden shed. From the project, society can be said to benefit from the outcome, which is the shed. The costs include the materials, the land occupied and, assuming you would rather be reading a book, your missed leisure time.

Now, imagine you enlist a builder to assist. Paying the builder costs you some money but reduces your loss of leisure time. The builder benefits from your payment, less tax paid to the Government. The total amount paid to the builder and to the Government is exactly equal to the cost to you, so this is simply a transfer. The cost is that the builder could have been doing something else, and whatever is displaced is the opportunity cost. The societal benefit has not changed – the shed. What has changed is that you have more leisure time and the builder does less of something else.

This might be another job. Assuming there are a fixed number of builders and jobs to undertake, and the market is efficient with just enough builders, then the builder helping to build your shed means that another job in the community is not undertaken and society misses out on the outputs of another project – a shed elsewhere or a retaining wall etc. In a theoretically competitive market, what the builder charges for their wages reflects the market's willingness to pay for their services and, at equilibrium, this is just equal to the value to the client (and the community) of the job that is displaced.

If there is surplus capacity in the building market, then in a theoretically competitive market, the price of building labour will fall such that more building work will be purchased. We will again be in an equilibrium in which doing one piece of work displaces another. However, because of various "market failures" that include minimum wage legislation, unequal quality of builders and information gaps, prices do not fall. However, in a CBA we might price the builder's labour as if there is a fully competitive market as an estimate of the social opportunity cost. Under this approach, labour opportunity costs may fall to low levels if there is significant spare capacity (or unemployment) but will not fall to zero, let alone into a negative cost (a benefit).

3.3 CBA

Below we explore how a CBA might be adopted for a project like Delmore and particularly the extent to which the analysis extends into other markets.

3.3.1 Housing CBA

In the Appendix I present a very simple model of a housing market in one location. Readers may be familiar with the basic ideas, so I have not included the discussion in the main text, but the Appendix is used to introduce the main concepts discussed below. It shows a market in which, because there is limited land available, house prices rise to a level above the marginal cost of supply. Developers increase prices, and thus profit, reducing what would otherwise be a benefit for purchasers.

A CBA of the Delmore project could take a simple approach building on the simple model in the Appendix. Housing demand is treated as exogenous and is met by the supply of houses at the Delmore site. The net benefits comprise:

- the producer surplus (PS) – the pre-tax profit[9] of the developer, estimated as the sales revenue, less the costs of development including land opportunity cost (its value in the

[9] Any tax paid is assumed to be a transfer to the Government rather than a cost and is part of the overall benefit

next best land use – agriculture or horticulture), site preparation, construction, infrastructure (roads, wastewater treatment and network connections) and any site-specific ongoing costs, including those for wastewater treatment and ecological management; plus

- the consumer surplus (CS) – the difference between price paid and the willingness to pay (WTP) of purchasers; minus

- any net environmental impacts.

The ongoing costs noted above may be higher for Delmore than other new housing developments. Although every Auckland household pays for three waters infrastructure, the operation of the on-site wastewater treatment plant may require higher than usual costs. In addition, I understand that to protect or improve the ecological values close to the development, there will be a need for ongoing weed and pest control of the native bush. These are real resource costs and may be levied separately on households by a Delmore residential society, that would need to be established.

The change in land value when zoned for housing as a change from agricultural use, might be used as a proxy for the overall change in net benefits, with the possible exception of net environmental effects. When housing land is scarce, prices of newly zoned land rise to the level at which a developer (in competition with others) is just willing to pay such that they can make a normal profit, taking account of all costs and sales revenues. This would be compared with the counterfactual of the use of the land for lifestyle blocks, or lifestyle blocks might be used to define the starting land price.

Consumer Surplus

Whether there is any consumer surplus is the subject of discussion in the literature. Under the AMM model, people ideally want to experience the opportunities and amenities that exist in the city centre. These can be obtained either by living close to the centre at high cost, or further out where they trade-off lower housing cost for higher transport cost. Assuming preferences are reasonably similar, at equilibrium, people's wellbeing will be the same in all locations and there is little benefit to be gained from moving. The extra benefits you get from a nicer location or shorter commute are exactly matched by higher housing costs or land prices there. This means people end up roughly equally happy or contented wherever they live once you consider both what they get and what they pay. The upshot of this is that there is little consumer surplus obtained in any one location, or it is certainly not greater in one location than another.

Developers build housing where it's profitable. But competition means they only make a normal profit, enough to cover their costs and a fair return for their investment capital and risk, but no extra "super normal" profits. Landowners benefit, because their land becomes more valuable if it is rezoned for housing from some other land use. The value of the location shows up in higher land prices.

This scope of analysis is effectively what the UE analysis does in GDP terms, but it does so using a CBA approach, identifying opportunity costs of land and including opportunity costs of labour (assumed to equal the price paid by the developer). Assuming a fully informed market, the full costs of infrastructure are included in the profit of the developer, reflecting the expected purchase price of an informed house buyer. Environmental effects and the costs of their

management similarly are accounted for to the extent these need to be managed under regulation. As noted above, this might include ongoing costs for weed and pest control levied by the residential society.

3.3.2 Wider Impacts

The commentary by Auckland Council suggests the analysis should examine effects beyond this, including those on the people who would have purchased at Delmore but don't under the counterfactual, and the wider effects on the housing market. This is not necessarily so.

The Potential Purchasers

UE assumes, absent the Delmore project, the people who would have bought the houses leave Auckland or New Zealand. Their economic value is treated as zero. In contrast, Mr Stewart and Dr Meade have argued that we need to take account of what would happen beyond the Delmore development, including to these people.

Arguably the wellbeing of New Zealanders is of interest, regardless of location. This includes New Zealanders moving to other countries. The Government provides diplomatic services to expats, provides legal aid to ensure fair treatment, allows birth registrations and intervenes to repatriate New Zealanders from conflict zones. The extent to which their wellbeing is of concern may diminish with time if people move permanently to another country, but it does not fall to zero.

Set against this, the net wellbeing contribution of housing elsewhere may not be significant. In competitive markets, profits are competed away so there is little producer surplus as discussed above. And because people are relatively indifferent about location (consistent with the AMM model), consumer surplus is eroded also. This means, in terms of housing, the people who otherwise would purchase at Delmore may have little net consumer surplus from their housing compared to Delmore.

Wider Housing Market

Impacts more widely in the housing market might be required to address other criteria, eg whether the project is consistent with 22(2)(a)(iii) *will increase the supply of housing, address housing needs, or contribute to a well-functioning urban environment* which are some of the matters that the Minister may consider. However, this is a separate issue from the subject of this review.

The wider impacts from an economic perspective would be relevant if the project would be expected to have an impact on prices, reflecting a significant increase in supply. This seems unlikely given its size as a percentage of total Auckland housing or of new developments; Mr Stewart has provided data on the size of the project compared to others in the vicinity to demonstrate that it is not significant in scale compared to others.

These effects will be minor at the margin – one more house or a small development – but for a large development they may be locally significant. The Delmore development might be significant enough to influence prices elsewhere in the Orewa area but would not be expected to extend beyond that.

3.3.3 Economics of Affordability

One of the arguments for the Delmore proposal is that it would provide more affordable housing because of its greenfield location. However, the suggested prices (including some below $1 million) do not include some expected ongoing costs that would not normally apply to a new house. These include fees likely to be levied by a Delmore residential society (equivalent to a body corporate for an apartment block) to fund the costs of on-site wastewater treatment, ecological management and potentially other costs, such as roading. Thus, the houses may not be more affordable from a total cost of ownership perspective.

Even if the houses were genuinely lower cost, the arguments above, building on the AMM model, suggest that people make trade-offs amongst attributes of houses and more affordable houses may be provided at the Delmore site, not for any desire to meet social objectives but because the developer is considering the site amenities and higher transport costs in making an assessment of potential selling prices.

There are other options. One is that the developer is proposing to build houses that are smaller than would maximise profits. We do not need to speculate on the motivation. This might enable people to enter the housing market who would not normally do so. The AMM model might suggest no wellbeing improvement from this move, with people moving effectively seeing no net improvement relative to renting. This reflects the probability that people purchasing will be stretched financially with a small if any consumer surplus.

These arguments suggest that the main impact on housing affordability might simply be through the increased housing supply to the Auckland market that Delmore represents.

3.3.4 Infrastructure Provision

The supply of wastewater treatment services to Delmore has been raised by UE and the council commentors. The Delmore proposal includes the costs of a temporary wastewater treatment plant with the intent to connect to the Watercare system after 2031 when, it is assumed, there will have been network enhancements. Watercare has questioned this assumption, noting that there is no current intent to have wastewater treatment available until much later – after 2050.

I do not know the complexity or cost of an out of cycle investment in wastewater infrastructure, but in the suggested criteria for significant economic benefits noted above, I have suggested significant spare infrastructure capacity as one criterion. The Delmore project does not meet this criterion, and although it might do so on other grounds, nothing is particularly significant.

3.3.5 The Counterfactual

The counterfactual is the estimate of what will happen absent the Delmore project going ahead. The UE analysis assumes (1) that the land would be in lifestyle blocks, and (2) that those who would have been accommodated in the housing at the site will move away from Auckland to other regions. Auckland Council and Dr Meade suggest that it also includes the later development of the Delmore site, and Mr Stewart also implies a counterfactual of urban centre development, as he suggests higher transport costs because of the fringe location of the Delmore site.

I have suggested a counterfactual that is largely for the stie itself and could be consistent with the UE assumption of lifestyle blocks or with agricultural/horticultural use of the site. The speculation on what happens to the purchasers otherwise is discounted largely through using the AMM model assumption that people are relatively indifferent to location such that there is no measurable change in consumer surplus. I have also suggested that the analysis could be largely undertaken using the change in land value that would capitalise the value of the development of the land, including its timing.

3.4 Conclusions

Consistency with the net benefit criterion of the FTAA would best be achieved using a CBA. From this perspective, the Delmore project is a housing development in which the developers would be expected to make a normal level of profit, and the purchasers of the houses will benefit, but no more than they would in some other location. They might move away from Auckland but still obtain a similar level of wellbeing.

The project is relatively large which might mean the total level of profit is larger than most developments, but as Auckland Council notes, there are other larger developments close by. The developers are proposing more affordable housing that is slightly lower priced than other developments, but it is not clear that this is not profit-maximising behaviour, taking account of the site location, transport costs and so on. In addition, because of potentially higher site-specific ongoing costs of ownership, the selling price may not be a good indication of relative affordability.

The analysis provided by the Council and Watercare suggests that there is wastewater infrastructure under-capacity that may not be resolved in the short or medium term. I would suggest significant underutilised capacity would be an indicator of the potential for higher than usual economic benefits. This is clearly not the case here.

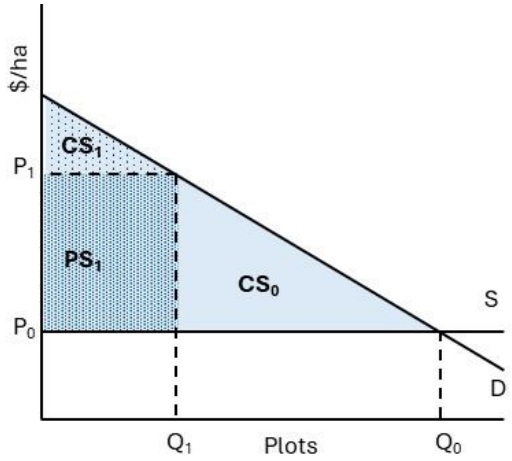
Auckland Council has suggested the analysis should consider the wider impacts, including on the people who would be housed at Delmore and the wider housing market. However, it is not clear from the material provided that these effects would be significant. The size of the project, while relatively large locally, is still small in the context of the overall Auckland property market, such that there is unlikely to be any noticeable impact on market prices. The people who would be housed at Delmore might move elsewhere, but their wellbeing might not be much different.

The analysis provided does not suggest significant net economic benefits.

Appendix – A Simple Housing Market

Figure 1 shows a generalised land and buildings market in a specific location with and without a supply constraint. By specific location I mean an area of land that might be defined as a single market because the characteristics of the land (including travel distance and amenities) are the same.

Figure 1 Land market economics



The cost of supply represented by the height of the horizontal supply line (S) includes:

1. the opportunity cost of the land, which is equal to its highest value in some alternative land use, eg farming, horticulture or, in expanding urban areas, potentially some industrial use; and
2. the cost of the buildings, infrastructure and network connections.

For simplicity I assume a uniform building type and plot size in a location such that S is horizontal.

The demand curve (D) represents the willingness to pay (WTP) for the housing in the specific location. It reflects the potential benefits an owner might obtain, taking account of the house itself; the costs of transport to work, shops and other locations; site amenities and so on. The demand curve is downward sloping – at higher price points, fewer plots will be purchased. This is partly because of differences in preferences across the population (some will like the housing more than others), and partly because of differences in ability to pay. The demand curve would be shallower in a location further from an urban centre, beach or other desirable location; at any price point, fewer houses will be demanded.

In a competitive market with many potential purchasers, and with no supply constraint, the market would be expected to clear at the sales quantity (Q_0) where the last person to purchase is willing to pay only as much as the cost of supply (equal to price P_0) and this would be the market price. For potential supply beyond this point, the plot would stay in the alternative land use as that is where the net benefit is greater. Total sales would be determined by the WTP at that price point. In such a market the economic value of the buildings is equal to the whole shaded triangular area bordered by S, D and the y axis; it is pure consumer surplus (CS_0). There is no producer surplus because the market price is driven down to the cost of supply.

If we assume a supply constraint (a limited number of houses can be or are built), then the price rises to the point at which the market price limits demand to the available quantity (Q_1). The consumer surplus (the difference between the amount paid and the WTP) is reduced to the much smaller triangle (CS_1) bordered by the price line at P_1, D and the y axis. There is now a producer surplus (PS_1) also, which represents the scarcity rent or profit that the original landowner can obtain when selling to a housing developer. The total economic value is equal to the sum of the two surpluses ($CS_1 + PS_1$).

Adding to supply in a location shifts the supply constraint to the right of Q_1, increasing the sum of the consumer and producer surpluses.