



# Memorandum

To: Madeleine Wright

Cc: Vineyard Ltd

From: Adam Thompson

Date: 2 July 2025

## Re: Response to Auckland Council Review of Proposed Delmore Residential Development

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This memo provides a response to the following documents:

1. Economic reviews by Mr James Stewart on behalf of the Auckland Council Chief Economic Unit, dated 16 May 2025 (provided as part of engagement) and 25 June 2025 (comments provided to panel in accordance with the FTAA). Mr Stewart's comments are provided in Annexure 2 to the Council's comments;
2. Economic review by Dr Richard Meade on behalf of the Auckland Council, dated 25 June 2025. This is provided in Annexure 3 to the Council's comments;
3. Planning review by Mr Dave Paul on behalf of the Auckland Council planning and policy unit, dated 23 May 2025. This is provided in Annexure 5 to the Council's comments; and,
4. Infrastructure capacity review by Ms Helen Shaw and Ms Amber Taylor on behalf of Watercare, dated 25 June 2025. This is provided in Annexure 7 to the Council's comments.

I address the key matters raised in these documents as follows.

### Response to Mr Stewart's Review dated 16 May 2025

Mr Stewart puts forward the following opinion regarding the definition of infill and greenfield land:

*"The definition of 'greenfield' adopted in the report is atypical, as it includes only FUZ land at the time the Unitary plan become operative (November 2016). The way this definition of greenfield is used is potentially misleading as it could imply that there is a significant good-faith market of households that would only consider purchasing new homes located on land that was, until recently, FUZ land. The corollary is that other homes (such as in the existing urban area or in a newer, developing areas like Milldale) could not act as substitutes for these households. In my view this is not a reasonable position as greenfield housing must compete with other housing."* (page 1)

The Auckland Unitary Plan Operative in Part ("AUP Operative in Part (November 2016)") defines greenfield land as "Land identified for future urban development that has not been previously developed". Both myself and Mr Stewart interpret this as referring to Future Urban Zone ("FUZ") land because it refers to land identified for future urban development. The comment made by Mr Stewart goes to which FUZ areas does it capture. In my opinion, whether this definition captures FUZ land in the PAUP or FUZ land in the AUP Operative in Part (November 2016) is unclear. For the purposes of my assessment, I have taken the literal



interpretation of the definition, that greenfield refers to FUZ land in the AUP Operative in Part (November 2016).

If the definition of greenfield land applies to FUZ land in the PAUP, this would include Milldale which was FUZ in the PAUP however live-zoned in the AUP Operative in Part (November 2016). I have updated Figure 15 (page 17) from my original report (Appendix 34 to the AEE) to consider the implications of both potential definitions of greenfield. This shows that if Milldale is included within the definition of greenfield, the shortage of greenfield dwellings would reduce from 5,800 to 4,400. Therefore, under both possible definitions there is a significant shortage of greenfield dwellings, built over the 2016-2024 period, in the Hibiscus Coast.

**Figure 1: Definition of Greenfield Land and Implications for Supply in Hibiscus Coast (2016-2024)**

Area	Greenfield Dwelling Demand*	Dwelling Completions /Sold*	Shortfall/ Surplus
Auckland Region	25,280	8,840	-16,440
<b>Hibiscus Coast - Greenfield Definition UE</b>	<b>6,000</b>	<b>200</b>	<b>-5,800</b>
<b>Hibiscus Coast - Greenfield Definition AC</b>	<b>6,000</b>	<b>1,600</b>	<b>-4,400</b>

Source: Auckland Council, Statistics NZ, Corelogic, UE

\*To date (2016-2024)

Mr Stewart notes that Ara Hills would compete with Milldale, regardless of whether it falls within the definition of greenfield. This is correct as the AUP Operative in Part (November 2016) establishes a definition of 'greenfield' which is quite different to the common definition, and under the common definition of 'greenfield' (any land that has not previously had buildings: Cambridge on-line dictionary) all developments on land that had not previously been developed would compete<sup>1</sup>. However, the AUP Operative in Part (November 2016) provides the policy direction applicable to the application, and the relevant consideration under it is whether there is sufficient greenfield land to meet demand in the Hibiscus Coast under the AUP Operative in Part (November 2016) definition (FUZ land supply and demand) not the common definition of greenfield.

For context, as shown in Figure 2 the majority (84%) of growth in the Hibiscus Coast has been greenfield (applying the common definition) and only a small fraction (16% or 105 p.a.) has been infill. This highlights that most development in the Hibiscus Coast occurs in new masterplanned developments, which is materially different to the main urban area, which has a much lower proportion of greenfield (Auckland Council estimates approximately 20% greenfield and 80% infill).

Given the continued reduction in housing affordability in Auckland since the AUP became operative in 2016, an important consideration is the level of uptake that has occurred in the Future Urban Areas ("FUA") identified in the FDS over this period, as it is widely accepted that greenfield housing contributes significantly towards the supply of affordable housing.

Under Mr Stewart's interpretation of the definition of greenfield land (FUZ land in the PAUP), approximately 13% of total dwellings since 2016 has occurred in the FUZ (page 21 of the FDS Development Monitoring Report 2024).

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<sup>1</sup> I consider the common definition of greenfield land to be residential land that has not been previously developed.



By contrast, if only the FUZ land in the AUP Operative in Part (November 2016) is considered, it is estimated that circa 1-2% of all dwelling uptake has occurred through the live zoning of FUZ land since 2016.

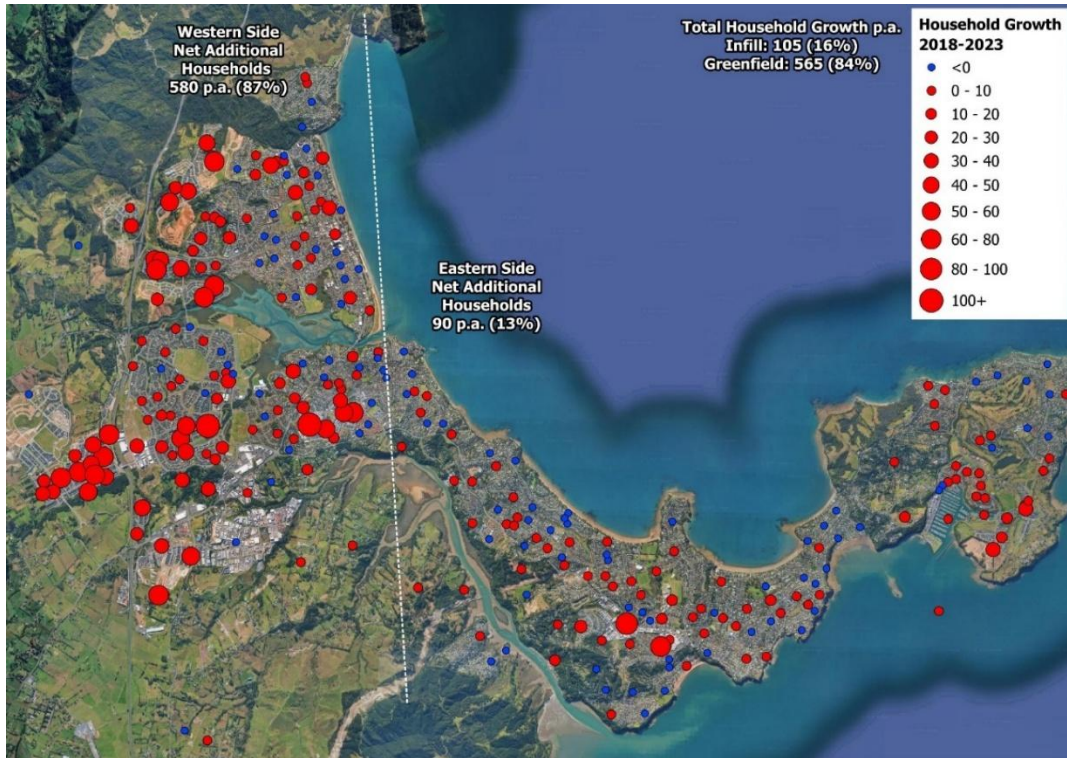
The uptake scenarios for both definitions confirm that supply is significantly below the anticipated rate of 24% greenfield for the first decade of the AUP (page 218 of the Auckland Plan 2050). This shortfall of greenfield development is in my opinion a key contributor to the continued rates of house price increases, despite the AUP Operative in Part (November 2016) enabling significant levels of development. Mr Stewart and I agree that greenfield housing is more affordable than infill housing (“We acknowledge that it is plausible that the same house and land package in a greenfield location would be brought to market at a lower price than if it were in an infill location”, and “We agree that the proposed development could contribute to more affordable housing outcomes by creating more development opportunities, enabling supply to be more responsive to demand”).

Regarding dwelling uptake in Future Urban Zone, or the Future Urban areas (FUAs) under the FDS, there are often significant potential constraints to their development, such as infrastructure, consenting timeframes, development planning, market cycles, etc. Two well-known large examples of FUZ areas which have encountered significant development constraints are Red Hills and Drury, which have achieved very modest rates of dwelling uptake due to known significant infrastructure constraints. This is relevant when considering the amount of greenfield land that has been live-zoned (i.e FUZ land that was in the PAUP but zoned in the AUP Operative in Part (November 2016)) which is cited as being 32% in the 2024 FDS development monitoring report<sup>2</sup> (approximately 4,000-5,000 hectares), relative to only 13% of dwellings regionally supplied in FUZ areas. This shows that zoning land alone does not in itself result in proportionate levels of new development (i.e. only 1/3 of live zoned PAUP FUZ has been taken up since 2016). This is important as Mr Stewart’s apparent assumption is that the quantity of zoned land should exactly match the infrastructure capacity, in terms of dwelling yield and capacity. However in practise only a small proportion of the capacity is realised in any given 10 year period, reflecting the inherent inefficiencies in the property sector, and suggesting that the optimal amount of land zoned should reflect several multiples of the infrastructure capacity, to enable it to be utilised efficiently (i.e. a buffer that accounts for the typical issues that developers face in supplying new dwellings to the market over this time period).

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<sup>2</sup> Auckland Future Development Strategy 2023-2053 Monitoring Report, December 2024, page 21

Figure 2: Hibiscus Coast Household Growth/Decline 2018-2023 (Census)



Source: Statistics NZ

Figure 3 provides a summary of the Census population and dwelling growth for the Hibiscus Coast and Auckland region between 2018 and 2023. The Hibiscus Coast recorded population growth of 9,640 people (17%), equating to an average of 1,930 people per annum (3.5% p.a.). Dwelling growth over the same period was 3,860 dwellings (17%), or 770 dwellings per annum (3.3% p.a.). This compares to region-wide growth of 5% in population and 12% in dwellings over the same period showing that the Hibiscus Coast grew at a faster rate than the Auckland region between 2018 and 2023. This reinforces the high demand for housing in the Hibiscus Coast.

Figure 3: Hibiscus Coast & Auckland Region Population & Household Growth 2018-2023 (Census)

Location	Measure	Census		Nominal Growth		% Growth	
		2018	2023	18-23	18-23 p.a.	18-23	18-23 p.a.
Hibiscus Coast	Population	55,790	65,430	9,640	1,930	17%	3.5%
	Dwellings	23,250	27,110	3,860	770	17%	3.3%
Auckland Region	Population	1,571,720	1,656,490	84,770	16,955	5%	1.1%
	Dwellings	547,060	611,900	64,840	12,970	12%	2.4%

Source: Statistics NZ



Mr Stewart puts forward the following opinion regarding the spatial and temporal distribution of dwelling demand:

*“Section 5.2 of the report assumes that demand for dwellings in greenfield locations across Auckland will be distributed pro rata by the level of potential development capacity in those greenfield locations. This results in the stated conclusion that 7,450 dwellings across Auckland over 2016-2026 should have been located on the Hibiscus Coast's greenfield areas (or 750 p.a.), when only 200 were - implying a significant shortfall in development and significant latent demand.*

*It is not clear in the report why demand for dwellings in greenfield locations should be expected to be met evenly, spatially (across the region) and temporally (over time), nor is it clear why the estimated capacity for growth of the area has been used as a proxy for demand for that area. In our opinion both treatments are inappropriate as assessments of demand. Our view is that demand for land is signalled through its price and determined by its highest and best use - this is revealed by the market value of the land's characteristics, including zoning.*

*Additionally, typical households are willing (and often prefer) to locate in established urban areas i.e., there is significant competition between the existing urban land and new greenfield land because established urban locations are often closer to things households value - family/friends, employment, education, shopping, and other amenities. This implies that demand for housing can potentially be met within existing urban areas. The demand assessment does not address this.”*

Mr Stewart considers the demand for FUZ land cannot be assumed to be pro rata to the distribution of FUZ land in the AUP. The Auckland Plan, HBA and FDS however do not provide estimates of demand for each area of FUZ land, nor do they provide a recommended optimal spatial distribution of demand across each area of FUZ land. This shortcoming was identified in a recent Environment Court decision with regard to the HBA:

*“The court considers the [Auckland] HBA was carried out mainly at a regional level and therefore does not meet the explicit requirements of the NPS-UD...” [206], Decision [2025] NZEnvC 058]*

These documents instead allocate demand to locations solely on the basis of infrastructure capacity, and most notably identify infill locations as having infrastructure capacity. With regard to FUAs in the FDS, demand is allocated to each FUA immediately following the completion of infrastructure upgrades. **An apparent principle the FDS relies upon therefore, relating to the spatial distribution of growth, is that it is most efficient for growth to occur where there is infrastructure capacity.** This principle is economically efficient as it fully utilises existing capacity which reduces overall cost. An important implication is that any location with unutilised infrastructure capacity should be enabled for growth, subject to their being no adverse effects, whether it is infill or greenfield.

It is worth noting that FUZ land, when viewed on a map, is relatively evenly distributed across the city, implying that there is relatively even demand across the region. This would reflect the population growth pattern shown in Figure 4 below, which has been relatively evenly spread, suggesting that demand for FUZ land is also relatively evenly spread. This supports the assumption in my assessment that demand can be allocated broadly pro-rata to FUZ land.

With regard to Mr Stewart's opinion that there is more demand for infill than greenfield dwellings, he appears to refer to the bid-rent curve theory, in which a household's demand for a dwelling is indifferent across locations, as a higher house price near the CBD or other amenities are fully offset by lower travel costs, and vice versa. In cities such as Auckland however, where house prices are very unaffordable, the majority of



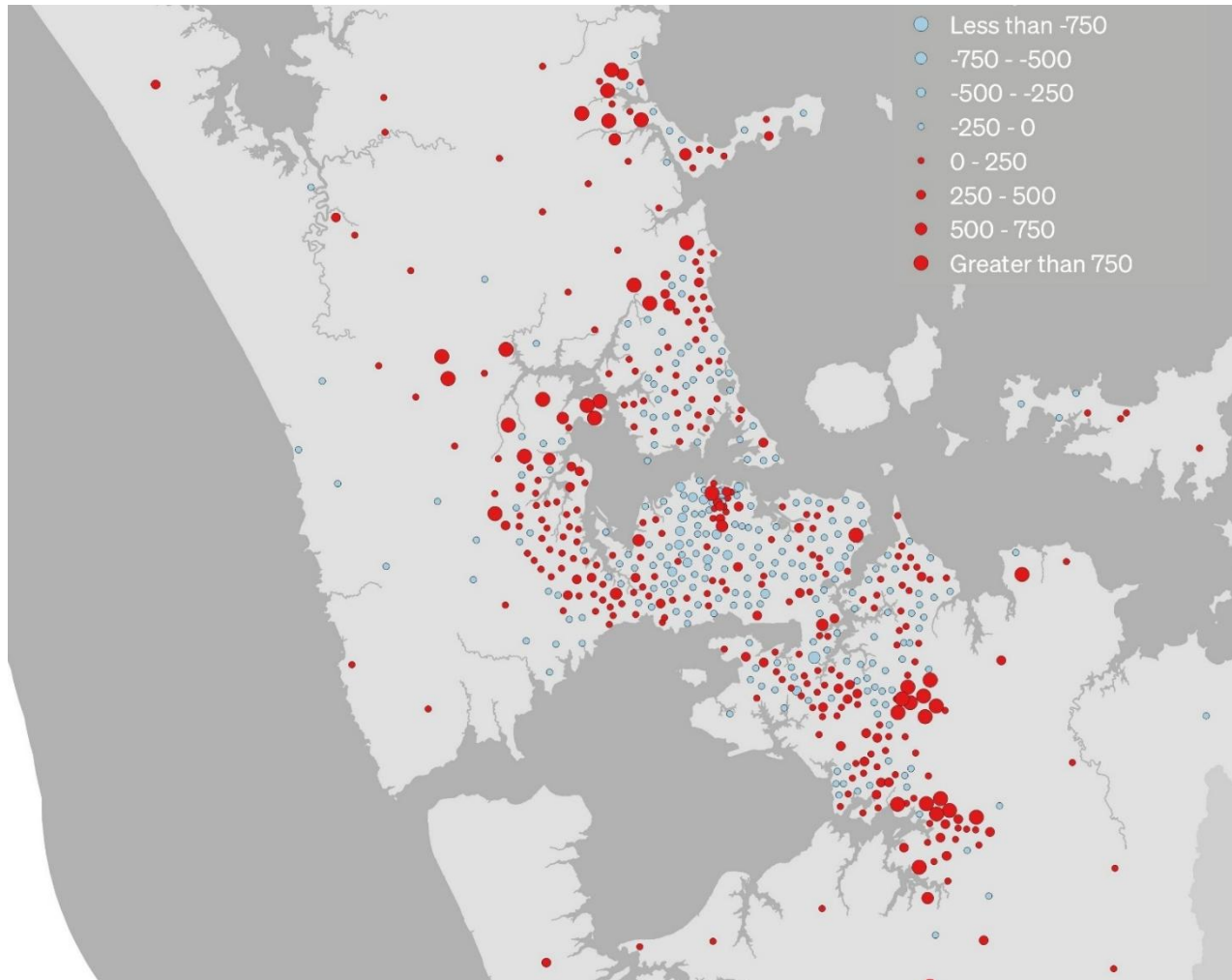
households are unable to purchase dwellings in the central or middle suburbs, and can only afford dwellings in the outer suburbs and cannot therefore in a practical sense be indifferent across all locations. While this may impose higher travel costs, this is addressed by many households by choosing employment in suburban centers, such as Manukau CBD or Albany. Technically, the bid-rent curve for low-middle income households in Auckland does not extend into the middle and central suburbs, due to affordability constraints.

Consequently, a large proportion of demand is for lower-priced outer suburbs. It should be noted that a large proportion of households require larger 3-4 bedroom dwellings, particularly families with children, and these cannot be substituted with smaller 2-3 bedroom terrace houses, i.e. dwelling prices need to be considered on a \$/sqm rather than nominal price basis. Mr Stewart appears to agree that many households are leaving Auckland due to high house prices, confirming that for some households, the price of dwellings in the outer suburbs is not within their ability to purchase (“...internal migration data showing more residents are leaving Auckland than arriving and conclude that housing affordability may be a contributing factor to the outward flows. We agree that housing affordability issues may be a cause of net internal migration away from Auckland”)

An important consideration with new housing developments is that new greenfield developments offer dwellings at a lower price than infill dwellings, which increases their demand and the overall demand for housing, indicating that many households would relocate further for this type of dwelling (the law of supply and demand applies). Mr Stewart confirms on behalf of the Chief Economic Unit that greenfield dwellings are able to be supplied at a lower price which is in my opinion the central economic consideration of the proposal, underpinning its ‘significant economic benefit’: “We acknowledge that it is plausible that the same house and land package in a greenfield location would be brought to market a lower price than if it were in an infill location”, and “We agree that the proposed development could contribute to more affordable housing outcomes by creating more development opportunities, enabling supply to be more responsive to demand”.



Figure 4: Auckland Population Growth/Decline 2018-2023 (Census)



Source: Statistics NZ



Mr Stewart puts forward the following opinion with regard to the **greenfield dwellings having lower prices than infill dwellings**:

*Section 2.1 suggests that one benefit of the proposed development would be enabling the construction of affordable dwellings. We agree that the proposed development could contribute to more affordable housing outcomes by creating more development opportunities, enabling supply to be more responsive to demand. However, there is an opportunity cost of prioritising enabling infrastructure to this location as it means other locations of potentially higher demand are deprioritised. Additionally, the report does not address affordability of housing as it only discusses land / house prices. Looking at these prices as they relate to incomes would be a more tangible way to achieve this. For example, the ratio of median house prices to median incomes has improved since the AUP.*

*Section 6 of the report (page 18) states that greenfield developments are able to be brought to market at lower prices than infill housing because they can achieve greater economies of scale for land development and construction, as well as lower raw land prices. This is somewhat misleading as it does not consider the trade-offs households make when making purchasing decisions.*

*Greenfield locations tend to be further away from the city centre and other amenities that households value, which lowers the value of the raw land. Households can choose to trade off proximity for lower prices, among other trade-offs, but may pay higher transport costs over time. Equally, greater economies of scale can be achieved by constructing intensively, such as apartment buildings in the city centre.*

*We acknowledge that it is plausible that the same house and land package in a greenfield location would be brought to market at a lower price than if it were in an infill location, but this is a function of the locational characteristics. Infill locations are in greater demand so have higher prices.*

My Stewart and I agree that the proposal would result in a faster rate of supply and would provide lower priced housing: “We agree that the proposed development could contribute to more affordable housing outcomes by creating more development opportunities, enabling supply to be more responsive to demand”. This is a key point of agreement as it confirms the proposal would result in a net addition to the number of dwellings build in the Hibiscus Coast. This is further reinforced by Mr Stewart and I agreeing that the proposal would reduce the outward migration from Auckland, in particular Mr Stewart concludes: “We agree that housing affordability issues may be a cause of net internal migration away from Auckland”.

Mr Stewart notes that there can be some external trade-offs or economic costs associated with lower-priced greenfield dwellings, that relate to uncoordinated patterns of development, or inefficient locations (e.g. away from employment). It is agreed that external costs can occur and need to be considered. In my opinion these matters were addressed through the AUP review, and at that time identified as optimal locations for FUZ land (under s 32 of the RMA). As such the proposal site was identified as having benefits that exceed the costs through the review process.

With regard to infrastructure prioritisation, I am not aware of any regional cost-recovery optimization modelling prepared by Auckland Council or Watercare, that identifies which projects should be prioritised. However, the basic principle that any unutilised capacity should be utilised as efficiently or quickly as possible applies, in my opinion, given the FDS identifies infrastructure capacity constraints: “Development in an increasing number of future urban areas has put more pressure on the council group’s ability to provide





funding and financing to service development, especially when there are already severe affordability constraints” (page 44).

Mr Stewart’s apparent assumption is that the proposed development requires Council to provide new infrastructure. Mr Kitchen’s assessment of infrastructure capacity, however, concludes that there is sufficient capacity remaining to enable the proposed development. As such, the proposal would result in more efficient cost recovery from existing infrastructure, and would reduce the timeframe for cost-recovery, through additional DC payments and lower interest payments. Alternatively, the proposal is able to include interim infrastructure capacity on-site (a private rather than public cost), which addresses any short term timing issues relating to capacity, something that is also addressed by Mr Hunt. The proposal therefore, in this regard, presents a significant economic benefit rather than cost as suggested by Mr Stewart. Figure 5 shows the approximate estimated cost-recovery efficiencies of the proposal. Several scenarios are tested, as follows:

- Status Quo (800 Dwellings p.a.) (Watercare). The region has experienced considerable development, with roughly 800 new homes connecting to Watercare’s wastewater network each year. Watercare’s Chief Strategy and Planning Officer, Priyan Perera, noted that the treatment plant might reach capacity sooner than expected if growth continues at current rates<sup>3</sup>.
- Status Quo + Proposal (915 Dwellings p.a.). This assumes an annual sale rate within the development of 115 dwellings p.a. in addition to the status quo. This rate of uptake is estimated based on an analysis of large greenfield developments across the region.
- Minimum Cost Recovery (1,500 Dwellings p.a.). This is the minimum required annual dwelling uptake to recover the proposed infrastructure cost (\$694 million) by year 30.
- Strong Cost Recovery (1,750 Dwellings p.a.). This adopts a strong annual uptake within the Hibiscus Coast. This would require several large greenfield developments to be supplying lots to the market in any given year (i.e. 8-10 greenfield developments supplying approximately 100 dwellings p.a. each).
- Very Strong Cost Recovery (2,000 Dwellings p.a.). This is an estimated annual uptake under a scenario where a significant proportion of the existing FUZ in the Hibiscus Coast is live-zoned, resulting in a large number of developers competing in the market (i.e. 10-12 greenfield developments supplying approximately 100 dwellings p.a. each).

The analysis shows that under the Status Quo (800 Dwellings p.a.) scenario, cost-recovery is not possible, with annual interest costs exceeding annual revenue.

Under the Status Quo + Proposal (915 Dwellings p.a.) scenario, cost-recovery is not possible, with annual interest costs exceeding annual revenue.

Under the Minimum Cost Recovery (1,500 Dwellings p.a.) scenario, cost-recovery is possible within the 30-year timeframe. 1,500 Dwellings p.a. is therefore the minimum rate of construction for the infrastructure cost-recovery.

Under the Strong Cost Recovery (1,750 Dwellings p.a.) scenario, cost recovery occurs within 23 years.

Under the Very Strong Cost Recovery (2,050 Dwellings p.a.) scenario, cost recovery occurs within 10 years.

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<sup>3</sup> Plans to invest \$500m for growing Hibiscus Coast community



In summary, this shows that the Hibiscus Coast requires a substantial increase in the rate of new construction to achieve efficient cost-recovery of the planned infrastructure upgrades. The proposed development makes a significant contribution towards this, with 115 additional dwellings annually. This results in a more efficient cost-recovery of \$123m, as shown in Figure 6 (\$751m-\$628m). **This is a significant economic benefit resulting from more efficient infrastructure utilisation and cost-recovery, i.e. the proposal will reduce the cost to Watercare by \$123m due to more efficient cost-recovery.**

For clarification, the Hibiscus Coast forms part of Watercare's metropolitan pooled area, where new projects are funded from across the city's main urban area. Several smaller towns are excluded from the pooled area, such as Pukekohe and Warkworth. The Hibiscus Coast however functions as a closed system with regard to infrastructure, given its distance from the main urban area, so is similar to Pukekohe or Warkworth in this respect. For example, the Army Bay wastewater plant only services the Hibiscus Coast. The economic viability of the planned Watercare upgrades should therefore in my opinion be considered in terms of the costs and revenue within the Hibiscus Coast, to ensure there are enough new dwellings supported to justify the significant investment, i.e. it is uneconomic to invest \$694m if this only supports 24,000 additional dwellings over the 30-year period, at 800 dwellings p.a., as shown in Figure 6, regardless of whether funding can be sourced from other parts of the City. This appears to be a requirement of the Local Government Act 2002, which reads:

*"The purpose of the development contributions provisions in this Act is to enable territorial authorities to recover from those persons undertaking development a fair, equitable, and proportionate portion of the total cost of capital expenditure necessary to service growth over the long term". (s 197AA, emphasis added)*

*"cost allocations used to establish development contributions should be determined according to, and be proportional to, the persons who will benefit from the assets to be provided (including the community as a whole) as well as those who create the need for those assets" (s 9177AB(c), emphasis added)*



**Figure 5: Hibiscus Coast Infrastructure Cost-Recovery Estimates for Various Growth Scenarios (0-30 Year Timeframe)**

Dwelling Uptake Scenario	Year	Total IGC Revenue (\$m) (Cumulative)*	Principal Cost (\$m) (Cumulative)**	Total Interest Cost (\$m)***	Cost to be Recovered (\$m)
Status Quo (800 Dwellings p.a.) (Watercare)	10	\$147	-\$369	-\$55	-\$277
	15	\$221	-\$532	-\$126	-\$437
	20	\$295	-\$694	-\$232	-\$632
	25	\$368	-\$694	-\$360	-\$686
	30	\$442	-\$694	-\$499	-\$751
Status Quo + Proposal (915 Dwellings p.a.) (UE)****	10	\$168	-\$369	-\$50	-\$250
	15	\$253	-\$532	-\$114	-\$393
	20	\$337	-\$694	-\$209	-\$566
	25	\$421	-\$694	-\$321	-\$594
	30	\$505	-\$694	-\$439	-\$628
Minimum Cost Recovery (1,500 Dwellings p.a.)	10	\$276	-\$369	-\$23	-\$116
	15	\$414	-\$532	-\$51	-\$169
	20	\$552	-\$694	-\$91	-\$233
	25	\$690	-\$694	-\$124	-\$128
	30	\$828	-\$694	-\$134	\$0
Strong Cost Recovery (1,750 Dwellings p.a.)	10	\$322	-\$369	-\$12	-\$58
	15	\$483	-\$532	-\$24	-\$73
	20	\$644	-\$694	-\$40	-\$90
	23	\$741	-\$694	-\$44	\$3
	30	-	-	-	-
Very Strong Cost Recovery (2,000 Dwellings p.a.)	10	\$368	-\$369	\$0	-\$1
	15	\$552	-\$532	\$2	\$23
	20	\$737	-\$694	\$10	\$53
	25	-	-	-	-
	30	-	-	-	-

Source: Watercare Asset Management Plan 2021-2041, Watercare Water & Wastewater Charges 2024-2025, UE

\* Based on an IGC of \$18,413 per dwelling (excl. GST)

\*\* Sourced from Watercare 2021-2041 Asset Management Plan.

\*\*\* Calculated at 4% of cumulative unrecovered cost.

\*\*\*\* Estimated Delmore sale rate of 115 p.a., informed by an analysis of sale rates of other large scale developments across the region.

**Figure 6: Hibiscus Coast Infrastructure Cost-Recovery Summary Table**

Dwelling Uptake Scenario	Total HUE's (Dwellings)	Base Cost (\$m)	Interest Cost (\$m)	Total Cost (\$m)	Total Revenue (\$m)	Total Unrecovered Costs (\$m)	Timeframe (Years)
Status Quo	24,000	-\$694	-\$499	-\$1,193	\$442	-\$751	30
Status Quo + Proposal	27,450	-\$694	-\$439	-\$1,133	\$505	-\$628	30
Minimum Cost Recovery	45,000	-\$694	-\$134	-\$828	\$828	\$0	30
Strong Cost Recovery	40,250	-\$694	-\$44	-\$738	\$741	\$3	23
Very Strong Cost Recovery	40,000	-\$694	\$10	-\$684	\$737	\$53	10*

Source: Watercare, UE

\* Revenue exceeds total costs from year 11, which is sufficient to cover future costs through to year 20. Totals outlined above reflect as at year 20 (final principal cost installment).



Mr Stewart puts forward the alternative data on the **price of dwellings in Auckland over the 2003-2023 period:**

*Figure 19 in section 6.1 presents a chart of the median Auckland house prices from 2003 to 2023, identify 2016 when the AUP became operative as a point in time when house prices began increasing more rapidly. The report states that the annual average house price increased from \$26,900p.a. pre-AUP to approximately \$100,000p.a. post-AUP. In our view the chart presented, and the accompanying commentary, is not consistent with data on median sales prices. We have recreated the chart from REINZ median house price data for Auckland (using the June value as representative of the year), both charts at the end of this review.*

*Data from REINZ shows, the average annual growth in median house prices pre-AUP was \$41,000p.a. and post-AUP was \$28,750p.a. (this reduces further to \$20,000p.a. when excluding years influenced by the historically low OCR in 2020 onward). Looking through the cyclical fluctuations, the Auckland median house price currently vacillates around \$1M suggesting an average growth between June 2016 and February 2025 of around \$23,000p.a.*

Both sets of data show that house prices have continued to increase rapidly under the AUP Operative in Part (November 2016). If the recent recession is excluded (from 2022) then Auckland house prices increased at over \$40,000 p.a. following the introduction of the AUP Operative in Part (November 2016), similar to the rate of increase preceding the introduction. The implication is that house prices have continued to see rapid price increases under the AUP. In my opinion the likely explanation is that only a small fraction of dwellings supplied have been greenfield, which would enable a greater supply of lower priced dwellings, as Mr Stewart and I agree.

Mr Stewart puts forward his opinion on the **calculation of GDP contributions:**

*“The report estimates employment and GDP contributions from the construction of the proposed development and then ongoing existence value of the proposed residential community. The methodology (input-output analysis) employed in calculating these numbers does not acknowledge the costs involved and assumes significant latent capacity in the economy that would otherwise not be employed e.g., the employees are assumed to be idle without the proposed development. In economic terms these numbers are meaningless without the context of these costs.”*

The proposed development would result in a net addition to the number of dwellings being constructed. Mr Stewart appears to agree with this, as he states: “We agree that the proposed development could contribute to more affordable housing outcomes by creating more development opportunities, enabling supply to be more responsive to demand”. The GDP and employment impacts are therefore considered to be a net addition, as this new construction would not otherwise occur. It would in large part rely on attracting new employees from other regions and countries and would increase the total amount of jobs in Auckland. This trend is evident in the years following the 2008 GFC when Auckland’s construction sector experienced rapid ongoing growth for over a decade, increasing by over 100%. This was supported in large part by an inflow of construction sector workers.

With regard to other costs, if Mr Stewart is referring to wider potential costs, e.g. environmental, these are addressed below, in response to the question of whether the report should include a more detailed assessment of costs and benefits.



Mr Stewart puts forward his opinion on **assessment of infrastructure costs**:

*“There is limited acknowledgement in the report of the costs of enabling the proposed activities from a societal perspective. This point is important because Auckland Council has limited ability to fund capacity improvements for trunk infrastructure to support growth that cannot be collected from existing growth charges (e.g. development contribution charges). Council must choose the best options for growth regarding their budget constraint.*

*The report does note that the existing wastewater network in the area is constrained, and a full buildout of the development will not be possible until additional wastewater capacity is enabled. There is no discussion on how this cost should be weighed up against the proposed development's potential benefits.”*

Mr Stewart’s comments on infrastructure efficiency are addressed in detail in this memo, in response to the question of whether greenfield dwellings have lower prices than infill dwellings.

With regard to my assessment noting that the existing wastewater network in the area is constrained, I refer to the assessment of capacity undertaken by Mr James Kitchen, in which he concludes there is sufficient capacity for the proposed development with the stage 1 Army Bay upgrade, and potentially within Army Bay’s current capacity. Utilising this capacity has significant economic benefits. I note that if there is no capacity prior to the upgrade, wastewater will be managed on-site.

Mr Stewart puts forward the opinion that **the report should include a more detailed assessment of costs and benefits**:

*“Our view is that the report does not demonstrate that the proposed development would deliver significant regional or national benefits because the report does not adequately identify the costs and benefits of the proposal or assess the scale of those costs and benefits. As a result, it also does not reach any conclusion about whether the benefits of the proposed development outweigh the costs for society.*

*Auckland Council must consider resource use from a societal perspective and has limited resources to support growth with growth related infrastructure. The proposed development would likely redirect planned investment from other identified future growth locations, and/or other Council initiatives identified in the Long-Term Plan, to support the proposed development. These trade-offs must be recognised and quantified to have a proper understanding of the net benefit of the proposed development relative to other opportunities/priorities.*

*“The economic assessment should be structured in a way to explicitly acknowledge the trade-offs (the costs and benefits) arising from of the proposed development being brought forward. The economic assessment should contain:*

- 1) *a framework of how the costs and benefits of the proposed development will be assessed, with acknowledgement of:*
  - a. *an appropriate counterfactual / 'business as usual' scenario*
  - b. *an appropriate scenario outlining the differences the proposed development represents*
  - c. *identified costs and benefits arising from the difference*



- d. *the spatial and temporal extents the costs and benefits are being measured over*
- e. *which segments of society are likely to bear these costs or enjoy these benefits*
- 2) *quantification of costs and benefits where practicable*
- 3) *a qualitative assessment of costs and benefits that are not able to be quantified and justification of the potential scale of these unquantified costs and benefits*
- 4) *a calculus of the net cost or net benefit of the proposed development to societal welfare and accompanying statement of the 'net' effect*
- 5) *appropriate sensitivity testing of underlying assumptions; particularly under what assumptions the headline results invert (where net benefits become net costs, or vice versa)."*

My assessment sufficiently addresses the key economic costs and benefits, in my opinion. Mr Stewart's suggestion that a more detailed CBA should be completed, that includes for example an interactive spatial and temporal model of the costs of each infrastructure project relative to the demand, would be beyond the typical capability of an applicant, as the required data would not be available, and would be very complex. I would note that this level of modelling does not appear to have been undertaken as part of the AUP review process, which is typically when such modelling would be justified. I believe it is reasonable to assume that the AUP review process completed the required CBA analysis to identify the optimal location for FUZ land across Auckland, and it is not necessary to repeat this for a single development. In other words, in costs and benefits of using the Site for urban development have already been considered and the subject site was identified as being 'suitable for urbanisation' when zoned FUZ which confirms its urbanisation has benefits that exceed its costs. The only remaining question, in my opinion, is the timing of the urbanisation, and this is largely a matter of infrastructure capacity, which appears to be the only criteria in the FDS for live-zoning FUZ land (i.e. all FUZ land is live-zoned following the completion of new infrastructure capacity). The FDS evaluates four growth scenarios, however, it does not conclude any specific growth scenario should be implemented, rather it concludes that they provide only "thematic" direction (page 8, FDS).

#### **Response to Mr Stewart's Review dated 25 June 2025**

In his statutory comments Mr Stewart [page 1] re-states his core issue that in his opinion a "cost-benefit framework to systematically evaluate the trade-offs inherent to the proposal...is needed to determine whether the Proposed Development results in a net welfare gain or loss to society" and that "The primary reason for my view is that the Proposed Development requires the use of societal resources that would otherwise be utilised / allocated elsewhere - i.e. it imposes opportunity costs to society that have not been assessed". Mr Stewart [page 4] identifies these opportunity costs as follows: "There is the potential for externalities to arise from the proposed Delmore area being live-zoned. This includes potentially not being able to provide infrastructure to other locations at all, or infrastructure being delayed or being provided at a greater cost overall".

The cost benefit assessment Mr Stewart says is required is in essence the same type of assessment as required by s 32 RMA: "identify and assess the benefits and costs of the environmental, economic, social, and cultural effects" and "if practicable, quantify the benefits and costs" (s32(2)) and "[identify] other reasonably practicable options for achieving the objectives" (s32(1)). He suggests that this should include a weighing up





the proposal against other potential development options/locations in order to determine if the Site should in fact be used for the project either at all, or now.

Based on the analysis in the memorandum of counsel provided with the applicant's response to comments, I understand that the FTAA does not require a s 32 assessment of projects allocated to the fast-track process. Rather, they require an assessment of the extent of the project's benefits and its adverse impacts. This is undertaken in a context where, in respect of Delmore, there has been a Parliamentary decision delivery should be facilitated because of its regionally significant benefits. Adverse impacts are identified based on the matters the panel must consider when deciding an application.

From an economic standpoint this requires an assessment that is focused on the extent of a project's significant benefits stemming from bringing a new development to the market quickly, and not on whether they may be opportunity costs relating to other potential options/locations.

For these reasons, I consider my assessment is sufficient to meet the requirements of the FTAA, and that a s 32 equivalent cost-benefit analysis, including consideration of other options/locations, is not required, as suggested by Mr Stewart. I reiterate that I conclude that the proposal will have economic benefits that exceed the costs.

Mr Stewart [page 1] states that I put forward the view "a tranche of projected future households demand greenfield land exclusive and would not accept substitute". This is not my view. I consider the Auckland Plan, AUP Operative in part (November 2016) and now the FDS all include a strategic growth direction that includes, as a fundamental element, a distribution between infill and greenfield land, which accounts for the benefits infill offers and the benefits greenfield offers. I attribute demand to infill and greenfield based on this strategic direction or split, however I would note that more than 32% of demand is typically for greenfield, as established in the Auckland Plan, and subsequently reduced in the FDS, and this will result in ongoing house price increases and affordability challenges, as concluded in the HBA, which is a significant cost.

Mr Stewart [page 2] puts forward his view, based on bid-rent curve theory, that the same house in Milldale and the City Centre would have the same overall cost to an owner when both dwelling price and transportation costs are considered. The implication is that the price differential between these locations, of circa \$2 million, implies a transportation saving of \$2 million for the owner not requiring to travel from Milldale to the City Centre, which equate to circa \$200,000 p.a., which is implausible. The differential in my opinion reflects historical windfall gains to those households living in the inner city, that could not otherwise be purchased with their incomes, and these windfall gains are a result of historical supply constraints.

Mr Stewart [page 3] states "I consider the legislative intent behind the phrase 'significant economic benefits', that Mr Thompson refers to in the FTAA, necessarily encompasses and assessment of the net position, i.e., considering both the benefits and costs. To interpret otherwise would depart from basic principles of sound economic analysis". I agree with Mr Stewart that economic analysis requires consideration of both costs and benefits, which I have completed. However, in my opinion legislation is not subservient to economic principles, rather legislation frames the economic analysis required. The frame provided by the FTAA is addressed in the memorandum of counsel provided with the applicant's response to comments.

Mr Stewart [page 3] states that the proposed dwellings would occur at some time in the future if not consented now, and it would therefore not increase total dwellings supply. My view is that the proposed development would provide new dwellings in the short-medium term, rather than the long term, and that this



would increase overall supply, as quantity supplied would increase as prices would decrease, supporting faster overall growth.

Mr Stewart [page 3] states raises questions about whether the application of the FUZ implies urbanisation of this land would have benefits that exceed the costs, however the FUZ is by definition identified as suitable for urbanisation, which can only occur under the RMA if the benefits exceed the costs. Mr Stewart also agrees that the FUZ “implies that the dwellings would be built eventually” [page 3].

Mr Stewart [page 4] states that there is the “...potential for externalities to arise from the proposed Delmore area being live-zoned. This includes potentially not being able to provide infrastructure to other locations at all, or infrastructure being delayed or being provided at a greater cost overall”. Further, Mr Stewart [page 6] states “If the full extent of the cumulative infrastructure required to support development in the Delmore area were to be brought forward by Council, Auckland Transport and Watercare to match the application timing, this would displace the existing pipeline (delaying delivery to other areas) and / or increase the financial burden on ratepayers to support delivery”. Mr Stewart’s view is therefore that if Delmore is consented, then Watercare will be legally obligated to provide additional infrastructure, to service this zoned land. This assumption is fundamental to Mr Stewart’s position, however it is directly contradicted by Watercare’s own comments to the panel. Ms Shaw and Ms Taylor also note that Watercare is not obligated to provide infrastructure capacity based on zoning per se, and can decline additional connections if capacity, and funding for additional capacity, is not available<sup>4</sup>. Watercare can therefore allocate its funding as it determines best achieves this, which does not create a requirement for additional infrastructure capacity to service of all live zoned land. A relevant consideration is that Auckland has housing capacity for around 900,000 infill houses, under the HBA, however does not have sufficient infrastructure capacity to service all of these potential dwellings. As such, there may be specific locations where new connections are declined, until funding for upgrades are available (as has recently occurred). The same principle applies to greenfield, specifically a new live zoning or consent does not create an obligation for infrastructure capacity to be provided immediately. I consider this to be an optimal economic approach, as it creates competition for infrastructure capacity, e.g. developers are incentivised to increase construction rates rather than land bank, and it ensures that there are many developments that are ‘ready to go’ when any infrastructure capacity upgrade is completed, and this in turn means more development contributions are available for efficient cost recovery. I note that the significant investment in the Hibiscus Coast upgrade will require a large number of medium-large scale developments, not just 2 or 3, to ensure enough development contributions are available to recover costs efficiently, particularly given interest costs alone will be significant (circa \$70 million p.a. - 5% of \$1.4 billion based on the comments from Ms Shaw and Ms Taylor).

Mr Stewart [page 4] considers the applicant funding \$10 million of an arterial road, that would typically be funded publicly, is a transfer rather than a net benefit. I do not agree. The Council (i.e the public) would have an additional \$10 million available for investment in other arterial roads, which is a net benefit. The applicant would incur the cost directly which would reduce their profit. This expenditure would ‘open up’ additional land that may not otherwise be available, which also has economic benefits, beyond that of the \$10 million public saving.

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<sup>4</sup> [page 4] “The grounds available to Watercare to refuse an application to connect to its networks under the Water Supply and Wastewater Bylaw 2015 include that there is insufficient capacity in the network ...”.



Mr Stewart [page 5] considers that the appropriate counterfactual / baseline for a formal cost benefit analysis should be the infrastructure timing in the FDS (2050+). I do not agree. The FDS, as Mr Stewart notes, is not considered to literally optimise costs and benefits over time, as many factors will change. I also consider that this baseline is not required under the FTAA, as there is no requirement to consider other options/locations, and instead the application is to be considered on its merits per se. The correct counterfactual or baseline is in my opinion the existing use, which is low intensity pastoral farming, which has a negligible economic value of around \$10,000 per usable hectare, which is a small fraction of the economic value for new housing.

Mr Stewart [page 6] and I agree that there is a 'consumer surplus' from the proposed development relating to bringing forward additional dwellings. Mr Stewart considers there is a transfer effect, i.e. these dwellings would occur elsewhere, however I do not agree, as there is less greenfield land provision than anticipated in the Auckland Plan and AUP, which can be addressed by the proposal, and this would increase overall housing supply.

Mr Stewart [page 6] considers the proposal would displace rural production activity, which I agree. However, displacing rural production activity has been assessed when considering the application of FUZ, and this has a relatively low economic value (around \$10,000 per ha for low intensity pastoral land).

Mr Stewart [page 6] considers the proposal may contribute to higher transport costs due to its peripheral location. I consider the Hibiscus Coast has many existing and planned employment opportunities available within a conventional travel time, of 20-30 minutes (e.g. Silverdale, Albany), and therefore would not inherently have higher transport costs.

Mr Stewart [page 7] suggests that the term 'significant regional or national benefits' can be inferred from the percentage contribution of the proposed development to overall new supply. I do not agree with this approach, rather consider the large scale of the proposal, and its ability to provide relatively affordable housing, suitable for a wide range of households, that has not otherwise occurred at a rate expected in the AUP and related documents, would provide a basis for determining whether the proposal is significant. More generally, an economic assessment can only contribute in part to this overall determination.

Mr Stewart [pages 9-10] refers to Councils population growth projections with regard to the question of housing demand. These projections have been historically inaccurate, e.g. they did not project the significant decline in population in the inner and central suburbs over the 2018-2023 period. Generally, there is strong demand for affordable homes in Auckland, and the Delmore project offers compact 'family scale' homes at a price that the average household is able to afford. This is a key driver of demand, particularly for households that cannot raise a large mortgage for a central or inner suburb location.

Mr Stewart [page 9] states with regard to the estimated prices of dwelling in the proposed development "The prices charges do not reflect any economic benefit in terms of affordability and there is very little reason to believe they will be the final price charged by the developer". The proposal is for a consent that includes specific lots sizes and dwelling sizes by type. The market determines the price of the houses, however the developer determines the lot and dwelling size. It is therefore reasonable to expect that the estimated prices are accurate, given the application is for specific lot and dwelling sizes.

Mr Stewart [page 13] implies that higher priced locations have higher demand. I do not agree as many households, particular those purchasing their first or second home, have no practical ability to purchase in an inner or middle suburb, particularly if they are a family household and require 3+ bedrooms.

**Response to Dr Meade's Review dated 25 June 2025**



Dr Meade reviews Mr Stewart's assessment and generally agrees with the views he puts forward. My response to Dr Meade can therefore be largely inferred from my response to Mr Stewart. I however make several minor comments as follows.

Dr Meade [page 4, para 8] concludes that if the application is declined "...that residential housing of the sort proposed would simply occur at a later date (i.e. 2050+, as zoned), even if a different project sponsor was involved". I agree with Dr Meade but note the corollary that bringing the development forward therefore presents a net economic benefit, of the type anticipated by the FTAA. If there was a 25+ year delay in realising these additional houses, i.e. 2050+, the application of a typical discount rate, of say 5% p.a., would mean the net present value of a delayed benefit would be a small fraction of the value if it occurred today. In addition, I note that Dr Meade's view that decline will simply see housing delivered later does not align well with the fact that the project has been listed in the FTAA, the purpose of which is to **facilitate** delivery of projects with regionally or nationally significant benefits. The expectation is that projects allocated to this process will be delivered now.

Dr Meade [page 5, para 10] considers there is no cost from displacing Auckland residents to other parts of the country. There are however studies in NZ and overseas that show that displacing the population from the larger more productive cities, to less productive smaller towns and cities, can reduce national GDP by 5-10%, which is a significant cost<sup>5</sup>.

Dr Meade [page 6, para 13.1] suggests the proposal may reflect a transfer within the region, i.e. the proposed housing would otherwise occur elsewhere. I do not agree, as there is less greenfield land being developed than anticipated in the AUP and related documents, and as such additional greenfield land would increase the overall supply of housing, given it can produce lower cost housing, due to the lower 'raw land price'.

Dr Meade [page 8, para 23.2] raises an important consideration: "...had the Delmore development been delivered right now, in the current subdued property market and wider economy, I would expect that many of the housing units would either currently remain unsold/untenanted (i.e. a situation of excess supply, no excess demand), or would only have been able to be sold if the Applicant was prepared to sell them at low prices". Dr Meade highlights the potential economic benefit of the proposal, that if the development proceeded, the Applicant may have to sell the dwellings "at low prices". This would reflect a significant regional benefit and is a natural consequence of increasing supply and competition. I would also note that it is generally accepted that Auckland has a housing shortage and for this reason it is difficult to see an economic basis for the dwellings remaining unsold or untenanted.

Dr Meade [page 9, para 25] states "...if the subject area genuinely was suffering from excess greenfield housing demand, this would be reflected in premiums being realised on available such housing...". I agree, when housing prices are above the fundamental cost of production, this implies a shortage. The cost of producing a new lot in Auckland is around \$200,000-\$250,000 (many parts of NZ bring lots to the market at this price). The price of lots in Milldale is currently \$400,000-\$800,000. This price premium confirms a shortage.

Dr Meade [para 28, page 10] states that consideration of affordability should consider house prices, incomes and interest rates. I consider the 'fundamental cost of production' to be a more relevant metric, as this provides a basis for determining whether a housing market is efficient, i.e. if houses are produced at the

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<sup>5</sup> E.g. [the-causes-and-economic-consequences-of-rising-regional-housing-prices-in-new-zealand.pdf](#)



fundamental cost of production then consumers get the best possible price. I do not however consider this is overly relevant to this application, other than to note that Delmore will offer relatively affordable housing, particularly for family households, and as such will have benefits.

Dr Meade [page 10, para 30] agrees that greenfield houses are less expensive than infill houses, excluding other factors, such as transportation. The proposal has benefits in this regard.

Dr Meade [para 31, page 11] agrees that people are leaving Auckland in part due to poor housing affordability. The proposal would address this economic cost.

### **Response to Mr Paul's Review dated 23 May 2025**

In paragraphs 15-17 Mr Paul raises the following issue with regard to consideration of the proposed construction of part of the NOR 6 arterial:

*"15. As noted above, the purpose of the FTAA is to facilitate proposals of "regional significance".*

*16. The applicant has made much of the "regional significance" of providing infrastructure, particularly the section of NOR 6 the road extension from Milldale to Grand Drive. I query whether the delivery of a short section of NOR 6 is "regionally significant". I doubt that delivering the whole of NOR 6 is even "regionally" significant. I agree that the route is locally significant ultimately providing a connection northward between Milldale and the Grand Drive interchange and Orewa and southward from Ara Hills and the applicants site to Milldale.*

*17. The applicant is only delivering approximately 850m of a road that is approx. 2.2km long (see Figure 2 below). The applicant is inconsistent in how it describes the route and, in some places, gives the impression it is providing the whole route<sup>1</sup>. These statements are misleading as they are not providing all of the road between Grand Drive and Wainui Road. The leg to the south is not provided so it doesn't connect to Milldale as is suggested. I acknowledge that the ITA is clear that only part of the route is being provided. Consequently, these statements are used to support the assessment against several policies and in my view overstates the section of road being of regional importance."*

My understanding, from discussions with Mr Hills, is that the NOR 6 is an arterial road, and these are typically publicly funded. In this instance, the developer proposes to privately fund a portion of this road. This would have an approximate cost of \$10 million (as estimated by Mr Leo Hills). This is a significant expenditure that would result in a public benefit however at the private cost of Vineway Ltd. As such, the economic benefit would be \$10 million, which is considered significant. More generally, the private investment in this road would enable the development to proceed, potentially earlier than otherwise, which has significant benefits relating to housing supply and infrastructure cost-recovery, as previously addressed.

Mr Paul addresses whether he considers the proposal enables a well-functioning urban environment (WFUE):

*"20. The National Policy Statement on Urban Development, through various objectives and policies, requires that planning decisions contribute to well-functioning urban environments. The application considers that the proposal will result in a well-functioning urban environment.*

*21. I have reservations that this is the case as it is unclear whether the proposal integrates the provision of the necessary infrastructure, particularly the uncertainty about the method of wastewater treatment and disposal as noted above. The provision of infrastructure is discussed in more detail by Council's other specialists."*



The definition of WFUE does not refer to infrastructure efficiency. However, the proposal in my opinion would meet the definition, with regard to supply affordable housing in a location that is near employment and other amenities, and more generally is considered 'suitable for urbanisation' by the zoning itself.

#### **Response to Ms Shaw's and Ms Taylor's Review dated 25 June 2025**

Ms Shaw and Ms Taylor [page 3] state that "Watercare does not support water and wastewater connection to the FUZ where providing those connections would jeopardise Watercare's ability to provide connections for development of existing live zoned land and sequenced growth". Similarly, Ms Shaw and Ms Taylor [page 3] state "Watercare does not support out-of-sequence development that puts pressure on Watercare to reprioritise or reallocated funding...away from live zoned areas and sequenced growth".

Ms Shaw and Ms Taylor [page 4] state that "The grounds available to Watercare to refuse an application to connect to its networks under the Water Supply and Wastewater Bylaw 2015 include that there is insufficient capacity in the network ...".

Watercare can therefore refuse to connect additional dwellings to its network if there is insufficient capacity. By implication, Watercare does not have an obligation to upgrade infrastructure as a result of live zoned land as claimed, rather has the ability to decline new connections, if there is insufficient capacity. A useful comparison, is that Auckland's infill locations have estimated housing capacity for 900,000 dwellings in the HBA, and Watercare does not have capacity for all of these dwelling presently and can decline connections if there is insufficient capacity in the future. This is the most efficient economic approach, as developers compete for capacity, to the point that it is fully utilised. This ensures additional development contributions are received to recover costs efficiently, whether it is greenfield or infill.

Ms Shaw and Ms Taylor [page 9] outline infrastructure upgrade costs in the Hibiscus Coast of over \$ 1.4 billion. The interest on this expenditure would be in the order of \$70 million p.a.. This would require 1,400 DCs annually, at \$50,000 per development contribution, just to cover the interest cost. Based on this investment, the proposal, and other greenfield developments, will be required to ensure efficient cost recovery is possible. Having additional development, ready to contribute development contribution as soon as the capacity is available, is therefore in the public interest (noting a 5-10 year lead time for conventional plan change and development processes). The present rate of growth would not cover the interest cost.

#### **Conclusion**

I consider my assessment demonstrates that the proposal has significant economic benefits:

- Additional housing,
- Lower priced housing,
- Employment from construction,
- Additional population retained in Auckland,
- Additional revenue for infrastructure cost recover,
- Provides greenfield land in proportion to that anticipated in the AUP and related documents.

I consider the proposal has only one relatively minor cost:

- Displacement of low intensity pastoral land.





Mr Stewart and Dr Meade have not identified any other potential costs, other than related to infrastructure capacity, which are addressed by Mr Kitchen.