

**BEFORE A PANEL OF INDEPENDENT HEARING COMMISSIONERS IN THE
WAIKATO REGION**

I MUA NGĀ KAIKŌMIHANA WHAKAWĀ MOTUHEKE WAIKATO

UNDER the Resource Management Act 1991 (RMA)

AND

IN THE MATTER of Proposed Variation 3 to the Waikato Proposed
District Plan (PDP)

**STATEMENT OF REBUTTAL EVIDENCE OF SUSAN MICHELLE FAIRGRAY FOR
WAIKATO DISTRICT COUNCIL
(Urban Economics)**

Dated 19 JULY 2023

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INTRODUCTION

1. My name is Susan Michelle Fairgray and I am an associate director at Market Economics Ltd.
2. My qualifications and experience are set out in my statement of evidence in chief (EIC) dated 20 June 2023.
3. I reaffirm the commitment in my EIC to adhere to the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023.
4. I have read the evidence provided by the submitters to the Independent Hearing Panel that is relevant to my area of expertise.
5. This statement of rebuttal will respond to the evidence of:
 - (a) Mr Osborne on behalf of Kāinga Ora;
 - (b) Mr Singh on behalf of Kāinga Ora in relation to enabling locations for higher density residential development;
 - (c) Mr Campbell on behalf of Kāinga Ora in relation to the application of a universal minimum vacant lot subdivision size;
 - (d) Mr Thompson on behalf of Harrisville 23 Limited;
 - (e) Mr McNaughton on behalf of Harrisville 23 Limited in relation to the development opportunity within Tuakau;
 - (f) Ms Addy on behalf of Harrisville 23 Limited in relation to the sufficiency of capacity in Tuakau and the location of the proposal site; and
 - (g) Mr Tollemache on behalf of Havelock Village Limited in relation to minimum vacant lot subdivision sizes.

6. This evidence also summarises the results of modelling of further qualifying matters undertaken subsequent to the completion of my EIC. I address this matter first.
7. The fact this rebuttal statement does not respond to every matter raised in the evidence of a submitter within my area of expertise should not be taken as acceptance of the matters raised. I have focused this rebuttal statement on the key points of difference that warrants a response.

SUMMARY

Additional Qualifying Matters

8. In July 2023, I have undertaken further modelling to calculate the effect of the Huntly Mine Subsidence (HMS) area and Site or Area of Significance to Maaori (SASM) at 5851 Great South Road additional qualifying matters on dwelling capacity. The SASM did not reduce capacity as the site does not contain planned infrastructure provision within the long-term. The HMS area reduced plan enabled capacity by 2% (-1,700 dwellings) and long-term commercially feasible capacity by 1% (-400 dwellings), with all of this effect occurring within Huntly.
9. Together with the stormwater qualifying matter, there is a 12% (-8,400 dwellings) reduction in plan enabled capacity across the four towns where the medium density residential standards (MDRS) is applied. The reductions in commercially feasible capacity become larger through time as a greater share of the plan enabled capacity that is reduced would otherwise become commercially feasible capacity. In total, the long-term feasible capacity is reduced by 12% (-5,700 dwellings), but remains well ahead of projected demand.
10. The qualifying matters applied in the area surrounding Tuurangawaewae Marae may reduce the potential size of more intensive dwellings on these

sites if they were to be developed, but would still allow for the same number of dwellings to occur.

11. I consider that the Havelock Precinct qualifying matters and environmental protection area (EPA) largely relate to physical constraints on the site that would similarly limit development irrespective of their status as a qualifying matter.

Higher Density Residential Development in Huntly

12. I generally agree with the economic advantages of intensification around centres outlined in Mr Osborne's evidence and consider that it will benefit Huntly's commercial centre.
13. I consider that the revised Kāinga Ora proposed extent of higher density residential development, limited to Huntly Town centre and Commercial zones, is likely to be more appropriate than the original proposal.
14. For the reasons outlined in my EIC, I consider that Huntly forms the most appropriate location for higher density residential development. I agree with Mr Osborne that higher density residential development will increase the differential in enabled density between the areas surrounding and further from the centre. However, I do not consider that it follows that it is therefore required. In my view, within the context of the Waikato District, differences in the intensity of medium density residential development are also important for establishing intensification around centres.
15. I consider that feasibility is likely to be one relevant factor in assessing the appropriateness of a location for higher density residential development. In my view, key aspects are whether the location is able to adequately support higher density development, the overall distribution of higher density development, the surrounding spatial economic structure and the local economic context.

16. I generally agree with Mr Osborne that the currently proposed 12m height limit in the Town Centre and Commercial zones is likely to limit the feasibility of higher density residential development for the reasons outlined by Mr Osborne.
17. I consider it is important that the height provisions within commercial areas and town centres, where residential development is appropriate, are sufficient to enable the feasibility of development. I note that feasibility depends on a number of factors. It is also important to take into account the level of demand at any time, the competition from new and existing dwellings of other typologies in the central areas and other locations, consumer preferences, ability to pay and so on. Other factors such as environmental considerations will also influence the appropriateness of building heights.

Sufficiency of Dwelling Capacity in Tuakau and Location of Proposed Harrisville Road Site

18. I consider that Mr Thompson has not demonstrated a shortfall in dwelling capacity in Tuakau under either the PDP or Variation 3. Mr Thompson has mistakenly identified a shortfall from a historical (2017 HBA) assessment of the district's dwelling capacity enabled by the *Operative District Plan* (ODP) zoning. The PDP has a substantially different zoning structure and provides large increases in greenfield capacity in Tuakau and Pokeno from that enabled under the ODP.
19. There have been several detailed assessments undertaken, since the 2017 HBA, of PDP and Variation 3 capacity, which I have summarised in my EIC. All of these assessments clearly indicate that there is a sizeable surplus capacity in Tuakau and Pookeno, in the medium and long-term, under both the PDP and Variation 3. While these reports are referenced in Mr Thompson's evidence, he has not stated their conclusions identifying the large surplus.

20. I therefore consider that Mr Thompson has correspondingly not demonstrated that the proposal is required on the basis of any shortfall in capacity.
21. In my view, the most recent assessment has found that Variation 3 enables development patterns that are well ahead of market demand. As well as large capacity, the nature of the provisions themselves provide large flexibility for the market to deliver dwellings at a range of different densities in a range of locations. These range from existing greenfield development patterns, up to typologies that are significantly more intensive than currently delivered by the market; and these are applied on a widespread basis across the urban area. The assessment has found no evidence of a market constraint within the PDP or Variation 3.
22. I consider that Mr Thompson has not demonstrated why the proposed site at 23 Harrisville Road has a greater propensity to deliver lower cost dwellings than other areas of the existing large greenfield capacity. I have identified several areas of inconsistencies within his assessment that may materially affect the likely assumed nature dwelling delivery on the proposed site.
23. I agree with Ms Addy and Mr Thompson that the site appears to be well located in relation to the existing urban edge and proximity to Tuakau's commercial centre. I consider that the proposal site is likely to represent an efficient location for future urban growth in relation to Tuakau's current and planned future urban spatial structure. I also accept there may be other planning factors that affect the suitability of the proposed site for future urban growth.

Subdivision Vacant Minimum Lot Sizes

24. I consider that the subdivision vacant minimum lot size has an important influence on how a city or town will develop and how its property market will perform. The initial lot size will have a significant and long-term effect on housing, including prices and affordability, through affecting the

development opportunity and value. It is important that an initial subdivision minimum lot size provides opportunity and encourages development patterns that include a range of different dwelling sizes and typologies to better align with patterns of demand. I consider that this is an important aspect of a well-functioning urban environment.

25. I consider that the proposed subdivision lot restriction area provides a significant increase in development opportunities across this area than that enabled under the PDP. A key difference occurs through enabling up to three dwelling per 450m² site. In my view, the increased potential yields on these sites provides significant scope for the market to provide more intensive dwelling typologies than patterns of lower density development that have previously characterised the urban towns.
26. I consider that a minimum lot size of at least 300m² is more likely to enable and encourage the development of a range of dwelling typologies and sizes within these locations than 200m². I also consider that the application of MDRS to the 450m² vacant lot subdivision size is likely to significantly increase the development opportunities in these areas. I consider that the market is likely to respond to the increased opportunity with lots of at least 300m², but particularly with a lot size closer to 450m², and provide an increasing share of smaller, more affordable dwellings, as well as medium and larger dwellings for which there is substantial demand. I consider that the range of dwelling sizes and typologies able to be feasibly delivered under this lot structure is likely to have better alignment to patterns of market demand. This is important as the community and market are likely to benefit from a range of dwelling sizes and typologies.
27. In contrast, I consider that the 200m² lot size requested by Kāinga Ora and the alternative 240m² lot size initially proposed by Mr Tollemache is likely to produce a narrower range of dwellings that suit the needs of a smaller share of the market. These are likely to be focussed around smaller detached dwellings and limit the ability of the market to deliver

attached dwelling typologies. In my view, it is likely to be more difficult for the market to deliver attached dwellings if a subdivision consists primarily of the smaller lot sizes of 200m² or 240m². This would require developers to purchase multiple contiguous sites to then construct attached dwellings, which may increase the land cost to dwelling developers, and to final consumers.

28. I acknowledge that Mr Tollemache has revised his position in the 18 July 2023 Joint Witness Statement (JWS) to also consider that a minimum vacant lot size of 300m² would also be appropriate. However, I have still included my assessment of the effects of smaller lot sizes as there are important differences that occur and I note other submitters are still seeking a smaller lot size.
29. In my view, there are important trade-offs that occur between minimum lot sizes of 300m² and 450m², with advantages and disadvantages associated with each size. I consider that these advantages and disadvantages differ through time and to different parts of the market. Some parts of the market, such as land developers and some households, are likely to have a greatest benefit from a 300m² lot size from the short-term, while other parts of the market, such as property developers and some households, may have a greater benefit from larger initial lot sizes over the medium to long-term. These are important differences in incentives that occur between the land development market, that is likely to favour smaller sites, and the property development market, that may instead achieve higher margins through lower costs from multiple dwellings on a larger site size as the market for house and land packages and attached dwellings becomes more established through time. These advantages and disadvantages are set out further below.
30. I consider that it is appropriate to have different minimum vacant lot sizes between inner urban areas of the towns that are closer to commercial centres and areas further from the centres. Applying the same minimum lot size throughout the towns can be expected to directly affect

development patterns and result in less differentiation among inner and outer areas of the towns, as well as less diversity in the mix of new dwellings, taking into account the existing parcel structure, built form and the type of location.

CAPACITY MODELLING OF FURTHER QUALIFYING MATTERS

31. In July 2023, I have undertaken further modelling of the effect of additional qualifying matters on residential capacity. I modelled the following additional qualifying matters:
 - (a) The Huntly Mine subsidence area;
 - (b) The SASM at 5851 Great South Road, Ngaaruawaahia;
 - (c) The Tuurangawaewae Marae Surrounds; and
 - (d) Those applying to the Havelock Precinct.
32. The Huntly Mine subsidence area and SASM qualifying matters both apply to areas within the former General residential zone. They reduce the density to one dwelling per 450m² lot in each location in the localised areas affected by the qualifying matters.
33. The SASM applied at 5851 Great South Road did not reduce modelled dwelling capacity as the site does not contain planned infrastructure provision within the long-term. Therefore, the site also does not contain dwelling capacity in the absence of the qualifying matter.
34. The modelled results of the Huntly Mine subsidence area are summarised in Table 1 below together with the other previously modelled qualifying matters. The net difference in plan enabled and commercially feasible capacity is shown in relation to the modelled Variation 3 zones without the application of qualifying matters (Scenario 3a from my 12 June 2023 report).

Table 1: Effect of Qualifying Matters on Modelled Capacity (Pookeno, Tuakau, Huntly and Ngaaruawaahia)

MODELLED SCENARIO	Plan Enabled Capacity	Commercially Feasible Capacity			
		Current	Short-Term	Medium-Term	Long-Term
Net Additional Dwelling Capacity					
Var 3 no QMs (Scenario 3a)	71,700	2,900	5,100	31,000	47,600
Var 3 with Urban Fringe QM (Scenario 3)	41,000	2,300	3,500	14,500	24,800
Var 3 with Stormwater QM	64,100	2,900	5,000	27,300	42,100
Var 3 with Mine Subsidence	70,000	2,900	5,200	31,000	47,200
Var 3 with all QMs (excl. Urban Fringe)	63,300	2,900	5,000	27,200	41,900
Net Change from Variation 3 with no QMs (Scenario 3a)					
Var 3 with Urban Fringe QM (Scenario 3)	-30,600	-700	-1,700	-16,500	-22,800
Var 3 with Stormwater QM	-7,600	-100	-200	-3,800	-5,500
Var 3 with Mine Subsidence	-1,700	0	0	0	-400
Var 3 with all QMs (excl. Urban Fringe)	-8,400	-100	-200	-3,800	-5,700
Percentage Change from Variation 3 with no QMs (Scenario 3a)					
Var 3 with Urban Fringe QM (Scenario 3)	-43%	-22%	-32%	-53%	-48%
Var 3 with Stormwater QM	-11%	-2%	-3%	-12%	-12%
Var 3 with Mine Subsidence	-2%	0%	0%	0%	-1%
Var 3 with all QMs (excl. Urban Fringe)	-12%	-2%	-3%	-12%	-12%

Source: M.E Waikato Residential Intensification Model, 2022 and 2023.

35. Table 1 shows that the additional Mine subsidence qualifying matter would reduce the total plan enabled capacity modelled across the four urban towns where MDRS is applied by 2%, equating to 1,700 fewer dwellings. The projected effect on commercially feasible capacity is smaller, at a reduction of 1% in the long-term or 400 fewer dwellings. The effect on commercially feasible capacity is smaller due to a lower portion of these dwellings projected to be feasible in comparison to the urban areas average.
36. The effect of the Mine subsidence area occurs entirely within Huntly, and therefore has a larger relative effect in this location. It reduces the plan enabled capacity at Huntly by 13%, and the long-term commercially feasible capacity by 11%. I note that feasible capacity exceeds demand by only a small margin in Huntly in the medium-term, increasing in the long-term. However, there is a sizeable amount of plan enabled capacity beyond the feasible capacity within Huntly.
37. The combined stormwater and mine subsidence modelled qualifying matters reduce the total plan enabled capacity by 12% (-8,400 dwellings). The reductions on commercially feasible capacity become larger through time as a greater share of the plan enabled capacity that is reduced would

otherwise become commercially feasible capacity. In total, the long-term feasible capacity is reduced by 12% (-5,700 dwellings), but remains well ahead of projected demand.

38. I have also considered the application of qualifying matters in relation to the area surrounding Tuurangawaewae Marae where the PDP Medium density zone provisions are instead applied. I consider that these provisions still enable a significant level of development at a scale that is well ahead of patterns of demand within Ngaaruawaahia. The provisions may reduce the potential size of more intensive dwellings on these sites if they were to be developed, but would still allow for the same number of dwellings to occur.
39. I have also examined the proposed qualifying matters and the EPA applied within the Havelock Precinct. The qualifying matters examined include the slope residential area, the Hilltop Park height restriction area, the Havelock industry buffer area and surrounding height restriction and noise contour areas. I consider that these qualifying matters largely relate to physical constraints on the site that would similarly limit development irrespective of their status as a qualifying matter. I note that there is general agreement among the experts that these are appropriate to reflect the nature of the site. I understand that the existing provisions within the plan limit the development potential within the EPA irrespective of whether or not it is a qualifying matter.

RESPONSE TO KĀINGA ORA

Response to Mr Osborne on increased heights in Huntly

40. I agree with Mr Osborne that intensification around centres has the economic advantages outlined in his evidence at paragraphs (a) to (f). I also generally agree that intensification within Huntly centre will result, to varying degrees, in the economic benefits outlined by Mr Osborne in paragraph 36. I consider that concentration of this residential growth

within and immediately around the commercial centre will increase the extent to which these benefits occur in comparison to growth occurring further from the centre.

41. At paragraph 18, Mr Osborne suggests that the MDRS has altered the relative position of where intensification should be focussed and therefore the differential required to direct intensification into centres. I agree that the MDRS has resulted in more enabled widespread medium density intensification in some areas. However, while I consider that higher density residential development does increase an intensification differential, I do not consider that it necessarily follows that it is therefore appropriate in a location. In my view, the appropriateness of a location is determined through a range of factors including the current and potential future ability for the location to support higher density residential development, the overall distribution of higher density residential development within the surrounding spatial economic structure, and the local economic context. I also consider that provision for both higher and different intensities of medium density residential development are relevant for establishing a differential.
42. I agree with Mr Osborne's evidence, at paragraphs 25 to 27, that zoning plays an important role in residential development patterns through enabling different opportunities for growth in each location. In my view, it is important that the opportunity is appropriately scaled within the local economic context to encourage a well-functioning urban environment.
43. I consider that the revised Kāinga Ora proposed extent of higher density residential development, limited to Huntly Town centre and Commercial zones, is likely to be more appropriate than the original proposal. My reasons are set out in paragraphs 78 - 83 and 89 - 97 of my EIC.
44. Mr Osborne sets out that it is important for higher density residential development to be viable in a location for it to occur, and that it needs to

be able to compete with other potential intensification options (such as horizontally-attached 2-3 level apartments) that are cheaper, but less-intensive. He considers that sufficient building heights form a critical part of the viability through the ability to achieve higher dwelling yields that offset the land and higher construction costs of this typology.

45. On this basis, Mr Osborne considers that the currently proposed 12m height limit within Variation 3 within the Town centre and Commercial zones is therefore likely to limit the feasibility. This height limit would restrict the achievable dwelling yield to a level that is insufficient for the development to be feasible.
46. I generally agree with Mr Osborne that the currently proposed 12m height limit in the Town centre and Commercial zones is likely to limit the feasibility of higher density residential development for the reasons outlined by Mr Osborne. An examination of the construction costs per unit of vertically-attached apartment dwellings indicates that these are highest for three to four-storey buildings (which would align with a 12m height limit). This is due to the higher construction costs between horizontally-attached two to three-level walk-up apartments and vertically-attached typologies. The additional construction aspects associated with this typology (e.g. lifts and construction materials) are spread across a limited number of units at three to four-storeys, therefore often generally reducing the level of feasibility.
47. In paragraph 46 of Mr Osborne's evidence, it appears that he considers a greater relativity between the increased construction costs and returns from greater building heights is required in Huntly to enable higher density development to compete with other development options. While I agree that increased heights are likely to increase feasibility, it is not clear why this requirement is greater in Huntly than in other locations. In my view, the height of realisable development in this location is likely to be limited by the timing and scale of market demand.

48. I consider it is important that the height provisions within town centre and commercial areas, where residential development is appropriate, are sufficient to enable the feasibility of development. I note that feasibility depends on a number of factors. It is also important to take into account the level of demand at any time, the competition from new and existing dwellings of other typologies in the central areas and other locations, consumer preferences, ability to pay and so on. Other factors such as environmental and planning considerations will also influence the appropriateness of building heights. I defer to the evidence of David Mead on these matters.

Response to Mr Singh on increased heights in Huntly

49. Mr Singh, at paragraph 4.8, states that it is important that a planning framework is substantially more enabling. He considers that restricting higher density development in a location based on its current attributes may limit future development if the typology becomes viable in the future.
50. The modelling I have undertaken for Variation 3, including with the application of qualifying matters, shows (as summarised in my EIC) that Variation 3 substantially increases capacity and development opportunity in relation to that under the PDP. There are sizeable net increases in both plan enabled and commercially feasible capacity. Variation 3 increases the level of development and intensification enabled within current and future urban areas to densities that are well ahead of existing patterns of demand.
51. I consider that feasibility is likely to be one relevant factor in assessing the appropriateness of a location for higher density residential development. As stated at paragraph 41, key aspects are whether the location is able to adequately support higher density development, the overall distribution

of higher density development, the surrounding spatial economic structure and the local economic context.

52. I agree with Mr Singh that it is important to consider the current and potential future role of a location in relation to its ability to support higher density residential development. I have taken these factors into account in my EIC. I note that there is alignment between my assessment of the appropriateness of Ngaaruawaahia as a location for higher density residential development and the removal of this location within Kāinga Ora's revised position.

Response to Mr Campbell on minimum lot size

53. Mr Campbell considers that a 200m² subdivision minimum lot size should be applied universally across the MRZ2 zone, including across the location of the PDP General Residential Zone (GRZ). In his view (paragraph 7.31 of his evidence), the existing 450m² subdivision minimum lot size is not consistent with medium density housing otherwise-enabled under the MDRS.
54. I consider that the 450m² subdivision minimum lot size is more likely to deliver a greater range of dwelling sizes and typologies and a higher level of intensification over the medium to long-term that better aligns with patterns of housing demand within the community than a smaller minimum lot size proposed by Kāinga Ora. I have set this out in my response to Mr Tollemache in paragraphs 85 to 98 below.

PROVISION OF FURTHER URBAN RESIDENTIAL GREENFIELD LAND AT HARRISVILLE ROAD, TUAKAU

Response to Mr Thompson

Dwelling capacity in Tuakau

55. Mr Thompson for Harrisville 23 Limited considers that there is a shortfall of dwelling capacity (under the PDP and Variation 3) within Tuakau and a

shortfall of dwellings able to be supplied within the lower dwelling value bands (below \$730k). He applies these shortfalls as the basis to support supplying further urban greenfield land by rezoning the Large Lot Residential parcels at 23A Harrisville Road to an urban residential zone. In his view, the supply of additional future urban greenfield land at this location will alleviate the claimed shortfalls. He states that the proposed area is well located in relation to the existing urban edge and proximity to Tuakau's commercial centre.

56. I have reviewed Mr Thompson's primary evidence, including his attached report, which he relies on to support his conclusions in relation to the proposed rezoning. While I agree with some aspects of the proposal, I have a number of concerns about Mr Thompson's assessment and do not consider that it contains the appropriate analysis to demonstrate the main propositions that his conclusions rely on. I set out my concerns below.
57. Firstly, I consider that Mr Thompson has not demonstrated a shortfall in dwelling capacity in Tuakau under either the PDP or Variation 3. Mr Thompson has mistakenly identified a shortfall from a historical (2017 HBA) assessment of the district's dwelling capacity enabled by the ODP zoning. The 2017 assessment pre-dates the PDP, with Section 2.3 of that report describing the ODP zoning structure applied. Mr Thompson incorrectly claims that it has shown a shortfall in *PDP* capacity.
58. The PDP has a substantially different zoning structure and provides large increases in greenfield capacity in Tuakau from that enabled under the ODP. I therefore consider that an analysis of sufficiency under the ODP does not provide useful insight into the sufficiency of PDP capacity, and moreover, the capacity enabled under Variation 3.
59. There have been several detailed assessments undertaken, since the 2017 HBA, of PDP and Variation 3 capacity, as referred to in Mr Thompson's report. These include the 2021 HBA, the intermediate MDRS

modelling (dated 7 July 2022¹) and the modelling I undertook for Variation 3 (dated 12 June 2023). I have also summarised the key findings from these assessments in my EIC. All of these assessments clearly indicate that there is a sizeable surplus capacity in Tuakau, in the medium and long-term, under both the PDP and Variation 3.

60. I have included the table below from the 2021 HBA (page 102) of the medium-term sufficiency assessment that I undertook by dwelling value band for Pookeno/Tuakau across the PDP zone structure. It shows that there is a sizeable surplus (3,100 dwellings) projected in the medium-term for Pookeno/Tuakau. Within this, it shows that there is a projected surplus within the \$700k to \$800k dwelling value band.

Table 2: Sufficiency of Projected Dwelling Capacity by Dwelling Value Band: Pookeno/Tuakau – Medium-Term – Current Prices Scenario

Dwelling Value Band	DEMAND			CAPACITY (RER)					SUFFICIENCY	
	Existing Households	2030 Demand	2030 Demand (with margin)	Existing Estate	Existing Urban Area	Greenfield	Additional Future Potential	Total Potential Future Estate	Net Difference to Demand	% of Demand
Up to \$200k	70	100	100	70	-	-	-	70	-50	60%
\$200k to \$300k	70	100	100	70	-	-	-	70	-50	60%
\$300k to \$400k	100	200	200	100	-	-	-	100	-80	60%
\$400k to \$500k	500	800	800	500	-	-	-	500	-300	60%
\$500k to \$600k	600	900	1,000	600	-	-	-	600	-400	60%
\$600k to \$700k	600	900	900	600	-	-	-	700	-200	77%
\$700k to \$800k	600	1,000	1,000	600	200	4,600	4,800	5,200	4,200	500%
\$800k to \$900k	60	90	100	60	10	10	20	100	0	103%
\$900k to \$1m	10	20	20	10	-	-	-	10	-10	60%
\$1m+	10	10	10	10	-	-	-	10	0	60%
TOTAL	2,600	4,000	4,300	2,600	200	4,600	4,800	7,400	3,100	171%
Dwelling Value Band	DEMAND			CAPACITY (COMMERCIALY FEASIBLE)					SUFFICIENCY	
	Existing Households	2030 Demand	2030 Demand (with margin)	Existing Estate	Existing Urban Area	Greenfield	Additional Future Potential	Total Potential Future Estate	Net Difference to Demand	% of Demand
Up to \$200k	70	100	100	70	-	-	-	70	-50	60%
\$200k to \$300k	70	100	100	70	-	-	-	70	-50	60%
\$300k to \$400k	100	200	200	100	-	-	-	100	-80	60%
\$400k to \$500k	500	800	800	500	-	-	-	500	-300	60%
\$500k to \$600k	600	900	1,000	600	-	-	-	600	-400	60%
\$600k to \$700k	600	900	900	600	-	-	-	700	-200	77%
\$700k to \$800k	600	1,000	1,000	600	800	4,900	5,700	6,100	5,100	588%
\$800k to \$900k	60	90	100	60	50	-	50	100	40	137%
\$900k to \$1m	10	20	20	10	-	-	-	10	-10	60%
\$1m+	10	10	10	10	-	-	-	10	0	60%
TOTAL	2,600	4,000	4,300	2,600	800	4,900	5,700	8,300	4,000	193%

Source: M.E. FPP Dwelling Capacity Model, 2020 and Housing Demand Model, 2021.

61. I therefore disagree with Mr Thompson that there is a shortfall in dwelling capacity in Tuakau under the PDP or Variation 3. Furthermore, I consider that Mr Thompson has correspondingly not demonstrated that the proposal is required on the basis of any shortfall in capacity.

¹ I note that I mistakenly referred to this report as dated 12 June 2022 in my EIC. The final version of this report is dated 7 July 2022.

62. I note that Mr Thompson was commissioned by the Ministry for the Environment (MfE) to peer review the residential capacity sections of the 2021 HBA and, in my view, is therefore aware of the demonstrated medium and long-term surplus capacity in Tuakau. The peer review states that *“[t]he approach used for the assessment of plan-enabled, infrastructure-ready, commercially feasible and ‘Reasonably Expected to be Realised’ (RER) capacity assessment is consistent with the guidelines of the NPS-UD 2020 (p3)”, and “[t]he assessment produces a rigorous estimate of the realisable development capacity for housing provided by current plans and development infrastructure (p17)”*. It is not clear why Mr Thompson has instead opted to rely on an earlier 2017 report that only assesses the ODP capacity.
63. I provide the following clarification in response to technical matters that Mr Thompson has raised in his report in relation to the Market Economics Ltd capacity assessments:
- (a) Mr Thompson claims that the assessments do not allow for competitiveness in supply between multiple landowners and therefore the proposed land is required to introduce competitiveness into the market. This is not correct. The assessments all include the required National Policy Statement - Urban Development (NPS-UD) competitiveness margin on demand.
 - (b) I note that the scale of the feasible capacity and projected surplus identified within Tuakau is very large relative to projected demand. Greenfield capacity is spread over many different parcels in a range of locations around Tuakau. In my view, this instead indicates that the PDP and Variation 3 are likely to provide adequate choice and opportunities to the market.

- (c) Mr Thompson states that the 2021 HBA has relied on high take-up rates through infill and redevelopment capacity to meet long-term dwelling demand in Waikato towns. This is not correct and it is not clear how Mr Thompson has reached this conclusion. The assessments clearly delineate between greenfield and existing urban (infill and redevelopment) capacity and the scale of greenfield land relative to projected demand is easily visible within the reports. The 2021 HBA, which Mr Thompson has previously peer reviewed, has applied low rates of intensification within existing urban areas, which are based on past patterns of development. For example, Table 4-4 of the 2021 HBA shows that the assessment has allocated around 96% of Tuakau/Pookeno medium-term realisable PDP capacity within greenfield areas, producing a surplus that is very large relative to demand.
64. Mr Thompson appears to confuse past take-up rates with available capacity and development opportunity and the ability for the market to, in response, produce more dwellings. A key aspect is instead related to the opportunities provided to the market within which it can respond to supply more capacity in line with the level of market demand. This appropriately forms the focus of our assessment. I find Mr Thompson's argument to be circular as it implies that future take-up rates will always reflect past take-up rates irrespective of available capacity and development opportunity.
65. Mr Thompson appears to have not clearly understood the purpose of the HBA assessments, including how the different stages of the capacity assessment enable them to differentiate between the effects of planning, infrastructure, and other factors within the market. The multi-staged nature of the capacity assessments identify the points at which a shortfall in capacity may occur. I consider that there are many factors within the market that operate together to deliver dwelling supply. As described in the HBA's, these include planning factors, infrastructure, the construction

sector, labour markets, population demand and wider economic conditions. It does not necessarily follow that an identified shortfall (which there is not) is therefore a planning constraint.

66. In contrast to Mr Thompson's claims, the assessments also assess the nature of capacity enabled under the different sets of planning provisions and how these align with patterns of market demand. In particular, the assessments consider the ability for planning provisions to enable patterns of development that match current and likely future densities demanded by the market. For instance, they consider the enabled development patterns and their location in relation to patterns of development in other areas, including larger urban economies where the intensity of development is likely to exceed that in the smaller Waikato urban towns. The assessments all include analyses of the costs and benefits of the enabled development patterns, including their relationship to encouraging a well-functioning urban environment.
67. In my view, the assessment has found that Variation 3 enables development patterns that are well ahead of market demand. As well as large capacity, the nature of the provisions themselves provide large flexibility for the market to deliver dwellings at a range of different densities in a range of locations. These range from existing greenfield development patterns, up to typologies that are significantly more intensive than currently delivered by the market; and these are applied on a widespread basis across the urban area. The assessment has found no evidence of a market constraint within the PDP or Variation 3.

Shortfall of lower price range dwellings in Tuakau

68. Mr Thompson's support for the proposal appears to rely on its ability to deliver affordable dwellings at a lower price than other areas of capacity. I consider that Mr Thompson has not demonstrated whether or not this is likely to occur. I set this out in the following paragraphs.

69. In my view, it is not clear why the proposal site has a greater propensity to deliver lower cost dwellings than other areas of capacity. Mr Thompson has not demonstrated this claim in his assessment, nor has he demonstrated why this is unlikely to occur in other areas of Tuakau greenfield capacity. I consider that this is important as my various capacity assessments have shown that there is a large range of greenfield capacity in Tuakau. It therefore does not follow, in my view, that the addition of further capacity (beyond the large amount that is already available) will increase the number of smaller, more affordable dwellings.
70. Further to the above concern, I consider that Mr Thompson's assessment has not demonstrated how dwellings are able to be delivered at a particular price range. I have identified several areas of inconsistencies within his assessment that may materially affect the likely assumed dwelling delivery on the proposed site. These are as follows:
- (a) Mr Thompson has not assessed the affordable dwelling value band. He has instead adopted a value band from the much earlier 2017 assessment, which is likely to have changed.
 - (b) Mr Thompson does not appear to have assessed whether dwellings are able to be feasibly delivered in this location in line with patterns of market demand at his adopted price point of below \$730,000 per dwelling.
 - (c) I consider that Mr Thompson's claims to achieve lower dwelling prices may be inconsistent with other parts of his assessment. For instance, he indicates (page 9) that lot sizes of 400m² reflect the patterns of dwelling demand, with almost all demand occurring in detached dwellings (page 8). He also states (page 8) that dwellings within the sub \$730,000 price bracket are able to be achieved in more intensive typologies. This appears to contrast the rest of the same section in his report where he considers there is only minor demand for these typologies.

71. I agree with Mr Thompson that the site appears to be well located in relation to the existing urban edge and proximity to Tuakau's commercial centre. As stated in paragraph 103 of my EIC, I consider that the proposal site is likely to represent a more efficient location for future urban growth than other already zoned areas further from the commercial centre. I also accept there may be other planning factors that affect the suitability of the proposed site for future urban growth.

Response to Mr McNaughton

72. Mr McNaughton, director for Harrisville 23 Limited, states, at paragraph 2.1, that Tuakau is running out of residential sections close to the commercial centre. He considers that the proposed site at 23A Harrisville Road would provide capacity to reside locally within Tuakau.
73. My assessment (dated 12 June 2023), as summarised in my EIC, has shown that the PDP and Variation 3 would provide a large amount of capacity relative to projected long-term demand (including a margin) in Tuakau. There is substantial capacity both within the existing urban and greenfield areas, which is an order of magnitude larger than the projected long-term demand.
74. My assessment found that Variation 3 enables large development opportunity for intensification within Tuakau's existing urban area, particularly within central areas within proximity to the commercial centre through the unmodified MR22 zone.
75. There are substantial opportunities for both infill development and redevelopment capacity within these areas. The MDRS provisions of up to three dwellings per site substantially increase the number of dwellings that can be accommodated on existing sites. This increases the available infill development opportunities (where additional dwellings are constructed around existing dwellings), particularly where past lower

density patterns of development have resulted in many sites with large undeveloped areas suitable to accommodate further dwellings.

76. My assessment has also found that the higher yields enabled on each site increase the feasibility for redevelopment of sites. I consider that this is more likely to occur within the medium-term as the market for more intensive dwellings becomes more established through time.
77. I agree with Mr McNaughton that the proposed site would provide dwelling capacity locally within Tuakau. As stated at paragraph 71, I consider, from an economic perspective, that the proposed site is a more efficient location for future urban expansion than some of the existing areas of future urban zoned greenfield land in Tuakau. However, I also accept there may be other planning factors that affect the suitability of the proposed site for future urban growth.

Response to Ms Addy

78. Ms Addy, planner for Harrisville 23 Limited, at paragraphs 5.14 and 7.7, states that the proposed site at 23A Harrisville Road would increase dwelling capacity within Tuakau as required by the NPS-UD.
79. As outlined in my EIC, and in paragraphs 56 to 61, and paragraphs 73 to 76 above, I consider that the PDP and Variation 3 already meet the NPS-UD requirements in relation to the sufficiency of capacity. I consider that the proposed site is not required for Tuakau to provide sufficient capacity to meet projected demand.
80. However, I agree with Ms Addy that the site forms an efficient location for future urban residential growth. I agree with Ms Addy on the basis of the sites' location relative to Tuakau's current and planned future urban spatial structure.
81. At paragraph 5.6, Ms Addy sets out that a likely alternative future land use for this site is residential development at lifestyle property densities.

I agree with Ms Addy that residential development at urban densities is likely to be a more efficient land use.

82. In addition to the reasons set out above, I also consider that the short to medium-term development of the proposal site at residential lifestyle densities may result in an inefficient land use in the long-term. I consider that the development of higher value lifestyle properties in this location may limit the feasibility of subsequent infill or redevelopment of the site into urban residential densities. In my view, the location within proximity to Tuakau's commercial centre means that the site is likely to be within the medium to long-term urban extent of the township, making this a relevant consideration.

SUBDIVISION LOT SIZES IN GREENFIELD AREAS: RESPONSE TO MR TOLLEMACHE

83. Mr Tollemache, planner for Havelock Village Limited, opposes the retention of the 450m² subdivision vacant lot size in greenfield areas across the spatial extent of the PDP GRZ. He considers that:
- (a) The 450m² vacant lot size does not provide any further development opportunity beyond the PDP GRZ (paragraphs 10.3 and 10.6);
 - (b) The 450m² lot size would be likely to restrict patterns of development to lower density detached houses on full sites (1 house per 450m² lot). He states that existing patterns of development within the greenfield areas would continue to prevail (paragraph 11.14; and
 - (c) The 450m² lot size would constrain the market's ability to provide different housing typologies (paragraph 10.6).
84. Mr Tollemache does not agree with the basis for the application of different vacant lot sizes between the urban area within 800m of the commercial centres (notified MRZ2) and areas beyond this distance. He

considers that a differentiation in lot sizes should instead apply between existing urban (brownfield) and greenfield areas (paragraph 14.5).

85. I consider that the subdivision vacant minimum lot size has an important influence on how a city or town will develop and how its property market will perform. The initial lot size will have a significant and long-term effect on housing, including prices and affordability, through affecting the development opportunity and value. It is important that an initial subdivision minimum lot size provides opportunity and encourages development patterns that include a range of different dwelling sizes and typologies to better align with patterns of demand. I consider that this is an important aspect of a well-functioning urban environment.
86. I consider that the application of the MDRS to the PDP GRZ area (within the four towns where the MDRS is applied) provides a significant increase in development opportunities across this area. In my view, a key difference in enabled development patterns occurs through enabling up to 3 dwellings per 450m² lot within the Minimum Lot Size Restriction Area (MLSRA), which applies to the extent of the PDP GRZ within the four towns where MDRS is applied. This differs substantially to 1 dwelling per 450m² lot (or one primary and one minor dwelling per 600m² within the same ownership structure) currently enabled under the PDP.
87. In my view, the increased potential yields on these sites provides significant scope for the market to provide more intensive dwelling typologies than patterns of lower density development that have previously characterised the urban towns. Analysis of recent greenfield development patterns in other locations indicates this may range from pairs of smaller detached dwellings, up to terraced housing (with 3 horizontally attached (side-by-side) dwellings), including densities within this range. I consider that these dwelling typologies are likely to become more established through time with market growth. At paragraph 10.14, Mr Tollemache notes that patterns of integrated attached dwelling

developments are occurring in the adjacent urban economies of Auckland and Hamilton.

88. I disagree with Mr Tollemache that 450m² lot sizes would restrict the development of more intensive dwellings, particularly attached dwellings that would respond to emerging demand within the market. In my view, attached dwellings are typically constructed simultaneously by the same developer, then sold separately. The increased yields of up to 3 dwellings per lot would therefore enable and encourage this to occur. There does not appear to be a basis for concluding that the increased yield at the enabled densities would restrict the development of these dwellings. I consider that attached dwelling development would instead be restricted through initial smaller lot provision because developers would have to purchase two or more contiguous lots in order to construct attached dwellings (since each 240m² lot could only accommodate one dwelling).
89. I agree that some parts of the market may be limited by the 450m² vacant lot size. There is currently demand within parts of the market to construct individual detached dwellings on smaller lot sizes where households are seeking smaller detached dwellings to prioritise a more affordable purchase price. This is more likely to occur where individual households purchase a vacant lot and then subsequently construct a single detached dwelling. However, I note that some demand from this part of the market could instead be met through a house and land package dwelling option where developers construct two detached dwellings on a lot and then sell each separately as a house and land package. I note that house and land packages are an established market pathway within the district's urban towns.
90. I also note that there is still likely to be a portion of market demand for larger dwellings at the initial subdivision lot sizes enabled within this area. My analysis of geographic household projections (as part of my calculation of dwelling demand presented in my EIC) suggests that the

rate of household growth within the northern parts of the district appears to exceed the likely endogenous rate of household formation within the towns. A substantial share of growth is likely to be driven by demand arising within the adjacent larger Auckland urban economy. I consider that a share of this demand is likely to be for larger dwellings on full sites that are less affordable within the more expensive Auckland market.

91. In my view, the 240m² initial subdivision lot size initially suggested by Mr Tollemache is likely to reduce the propensity for the market to provide attached dwellings. I consider that it may encourage subdivision developers to produce subdivisions consisting largely of 240m² lots (where enabled by topography and other factors). This would maximise the value achieved by developers where a large portion of the value is obtained through the formation of a lot. Developing fewer lots at a larger average size will generally mean a lower total return than developing a higher number of smaller lots, because a large share of the value of urban land arises from the potential to use it for a dwelling.
92. I acknowledge that in the JWS² (18 July 2023) Mr Tollemache has revised his position to also consider that a minimum vacant lot size of 300m² would also be appropriate. However, I have still included my assessment of the effect of smaller lot sizes as there are important differences between lot sizes that are closer to 200m² and lot sizes of 300m². There are also still submitters, such as Kāinga Ora, seeking a smaller lot size (of 200m²).
93. I consider that this potential lot structure (arising from the alternative 240m² minimum lot size initially proposed by Mr Tollemache) would create greater opportunity for a portion of the market. However, this is likely to be more suited to smaller households at the lower end of the market that are seeking smaller detached dwellings. Increased opportunities may also be mainly focussed on households that are

² Joint Witness Statement (JWS) in Relation to: Planning (Minimum Vacant Lot Size), 18 July 2023.

purchasing vacant lots, then building, rather than house and land packages.

94. I consider that house and land packages of smaller detached dwellings may be able to occur more efficiently through the construction of two detached dwellings on a larger minimum lot size. This may occur where it is generally cheaper for a developer to purchase one larger lot and then subdivide it into two separate dwelling and lot packages than two smaller lots, where the value from ability to use it for a dwelling is already built in. I note there are also likely to be scale economies achieved through the simultaneous construction of two adjacent dwellings.
95. In my view, it is likely to be more difficult for the market to deliver attached dwellings if a subdivision consists primarily of the smaller lot sizes of 240m² initially proposed by Mr Tollemache. This would require developers to purchase multiple contiguous sites to then construct attached dwellings. As set out above in paragraph 94, this may increase the land cost to dwelling developers, and to final consumers.
96. I note that Mr Tollemache's assumptions about the likely future greenfield development patterns are informed by past patterns of development across the urban towns. These are based on existing planning provisions, which differ to the increased development opportunity enabled by the application of the MDRS. I therefore consider that the likely future development patterns may differ substantially as developers respond to the increased opportunity, particularly as the market for more intensive dwellings including attached dwellings becomes more established through time.
97. For the reasons set out above, I consider that a minimum lot size of at least 300m² is more likely to enable and encourage the development of a range of dwelling typologies and sizes within these locations than 200m². I also consider that the application of the MDRS to the 450m² vacant lot subdivision size is likely to significantly increase the

development opportunities in these areas. I consider that the market is likely to respond to the increased opportunity with lots of at least 300m², but particularly with a lot size closer to 450m², and provide an increasing share of smaller, more affordable dwellings, as well as medium and larger dwellings for which there is substantial demand. I consider that the range of dwelling sizes and typologies able to be feasibly delivered under this lot structure is likely to have better alignment to patterns of market demand. This is important as the community and market are likely to benefit from a range of dwelling sizes and typologies.

98. In contrast, I consider that the 200m² lot size requested by Kāinga Ora and the alternative 240m² lot size initially proposed by Mr Tollemache are likely to produce a narrower range of dwellings that suit the needs of a smaller share of the market. These are likely to be focussed around smaller detached dwellings and limit the ability of the market to deliver attached dwelling typologies.
99. In my view, there are important trade-offs that occur between minimum lot sizes of 300m² and 450m², with advantages and disadvantages associated with each size. I consider that these advantages and disadvantages differ through time and to different parts of the market. Some parts of the market, such as land developers and some households, are likely to have the greatest benefit from a 300m² lot size from the short-term, while other parts of the market, such as property developers and some households, may have a greater benefit from larger initial lot sizes over the medium to long-term. These are important differences in incentives that occur between the land development market that is likely to favour smaller sites, and the property development market, that may instead achieve higher margins through lower costs from multiple dwellings on a larger site size as the market for house and land packages and attached dwellings becomes more established through time.

100. As stated at paragraph 89 above, a 300m² lot size would, in the short-term, increase housing affordability through enabling an immediate reduction in the land area of individually constructed detached dwellings. It may also enable smaller pairs of duplex dwellings to be constructed at a lower cost. I consider that this site size would also maximise the returns for land developers as it would result in the greatest number of lots (which generally outweighs the returns from selling fewer lots at an increased price per lot). This is therefore likely to encourage subdivisions consisting mainly of this lot size.
101. On the other hand, I consider that there are advantages of a 450m² lot size that become more apparent for the community and urban environment over the medium to long-term. I consider that a larger lot size is likely to enable greater opportunity and provide more flexibility for the development of multiple attached dwellings than a smaller lot size. While there is currently limited demand for these dwellings, their demand is likely to increase through time. I also consider that these larger sites could potentially accommodate two detached dwellings. This could form an attractive option for dwelling construction companies where a 450m² site could be developed into two detached dwellings that are sold separately for a higher overall return than a single dwelling on the site.
102. I disagree with Mr Tollemache's initial position (which I acknowledge has now changed in the 18 July 2023 JWS) that the same minimum lot size should be universally applied across the urban residential areas within 800m of the commercial centres and those located in outer suburban areas. I consider that it is instead appropriate to have different minimum vacant lot sizes between these areas. Applying the same minimum lot size throughout the towns can be expected to directly affect development patterns and result in less differentiation among inner and outer areas of the towns, as well as less diversity in the mix of new dwellings, taking into account the existing parcel structure, built form and the type of location.

103. In my view, it is appropriate to encourage intensification to occur in inner urban residential areas that surround town centres for the reasons outlined in my EIC (paragraphs 63 to 69). Greater intensification within the more accessible inner urban areas surrounding the commercial centres better supports the viability and vitality of centres and is important for a well-functioning urban environment. I consider that part of this occurs through enabling greater flexibility in lot sizes within the existing urban areas where intensification should be encouraged.
104. Importantly, the effect of smaller lot sizes on development patterns within these areas differ to the same lot size application within outer urban or greenfield areas. This is because these areas are already urbanised and any intensification needs to occur within the spatial structure of existing lots.
105. The inner areas of these towns were often developed many decades ago, with a lot structure that reflects historic market preferences. Examination of the existing parcel boundaries within Pookeno and Tuakau shows a large portion of lots of greater than 450m² and less than 900m². Therefore, a smaller lot size is required to form initial lots and encourage development patterns that are more intensive than enabled across a larger starting lot size (e.g. 450m²) in outer urban areas.
106. A smaller minimum lot size within inner urban areas may also increase the potential for infill development (as distinct from redevelopment), where additional dwellings are constructed upon vacant portions of parcels around existing dwellings. While this could also occur within the increased yield on these sites, I consider that it facilitates the development pathway where existing dwelling owners subdivide and sell a portion of their existing land, with subsequent dwelling construction.

CONCLUSION

107. My evidence has assessed the impact on development capacity of additional qualifying matters, considered the increased height overlays in Huntly, commented on the development capacity in Tuakau and considered the vacant minimum lot size for the area formerly zoned GRZ under the PDP.

Susan Michelle Fairgray
19 July 2023