

SECTION 42A REPORT

Report on submissions and further submissions on the
Proposed Waikato District Plan

Hearing 25: Framework report: Supplementary Evidence

Report prepared by Dr Mark Davey

Date: 28th April 2021



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Introduction

1.1 Introduction

1. My name is Mark Nairn Davey. I am employed by Waikato District Council as Growth & Analytics Manager. Please refer to 'Hearing 27 Zone Extents Framework report' dated 19th January 2021 (referred to herein as FR) for an outline of my qualifications and relevant experience..

1.2 Code of Conduct

2. I reconfirm that I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014 and that I have complied with it when preparing this supplementary report. Other than when I state that I am relying on the advice of another person, this evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
3. I am authorised to give this evidence on the Council's behalf to the Hearings Panel (the Panel).

1.3 Conflict of Interest

4. I confirm that I have no real or perceived conflict of interest.
5. I do not own property or have interests in any businesses which own property within the district. I do not live within the district. I do not stand to benefit from any potential outcome of rezoning or otherwise in the district.

Purpose

6. The purpose of this supplementary evidence is to present the Panel with more detailed data analysis regarding land supply in the Waikato District beyond what was presented in the FR. The analysis illustrates the land supply that would result should all the council s42A zoning recommendations be adopted by the Panel. Attached to this report are maps showing a comparison between the notified PWDP zoning and the zoning changes recommended by the Council s42A authors.
7. This report also details the methods, assumptions, limitations and background relating to how the data was compiled, and includes advice on how this data should be interpreted. The primary focus of this report is the supply of housing and employment land in the Waikato District. Demand for employment land is addressed in more detail in the FR and cited reports.
8. The data contained in this report are intended to act as a guide to assist the Panel with its decision-making with respect to giving effect to the NPS-UD. A key intent of the NPS-UD is to ensure that sufficient zoned land is made available, in the right places, to meet demand. This central government policy intervention is a direct response to historic failings of local authorities to zone sufficient land to meet demand and the resulting economic and social effects stemming from this. The challenge for the Panel will be the need to give effect to the intent of the NPS-UD, along with other higher-order documents and Part 2 matters under the RMA which, at times, might appear to be pulling in different directions.

9. This report has been prepared following the completion and publication of the Council planner s42A reports. The timing of the release of this report is due to two factors. First, in order to undertake the analysis, the recommendations from the reporting planners had to land with respect to rezoning. Second, a number of different data sets from various sources had to be compiled, synthesised and processed through Council's GIS (geographic information system). Only following this could the analysis and interpretation of the data included in this evidence be undertaken.
10. The analysis reported on here is not intended to foreshadow the results of the Housing and Business Capacity Assessment (HBA) currently being undertaken by Market Economics on behalf of the Future Proof Partners. It is important to note, however, that the assumptions underpinning the forthcoming HBA findings will not take account of the s42A recommendations with respect to changes to zone extents where they differ from the as-notified PWDP and Waikato 2070. The HBA modelling considers the operative Waikato District Plan (WDP) zone extent in the short term; the Proposed Waikato District Plan (PWDP) and some of Waikato 2070 growth cells from the medium term onwards; and the remaining Waikato 2070 growth cells, not already modeled, in the long term.
11. All data has limitations. The following data analysis provides only a guide at best for decision-makers. The reasons for this are expanded upon in the Methods, Assumptions and Limitations section of this report.

Overview of findings

12. The analysis of the available data, factoring in a range of assumptions including the s42A zoning recommendations, show that there is marginally enough housing supply ('reasonably expected to be realised') to meet the demand +20% threshold (2021-2036¹). This is shown in Figure 1 comparing the demand +20% (2021-2036) with the Net Total: reasonably expected to be realised². There are unders and overs at a township level, and this means that some towns do not have sufficient supply to meet demand +20%, whereas others do.

¹ A 15-year time-horizon for demand data has been used (refer para 64 for rationale).

² References to 'net total' throughout this evidence is used to denote the net effect on capacity when assessing the as-notified PWDP yields along with the yields from the s42A zoning recommendations, minus any duplication. That is, where a s42A author is proposing a change of zone the yield from the underlying notified zone needs to be removed and replaced with the yield of the recommended zone.

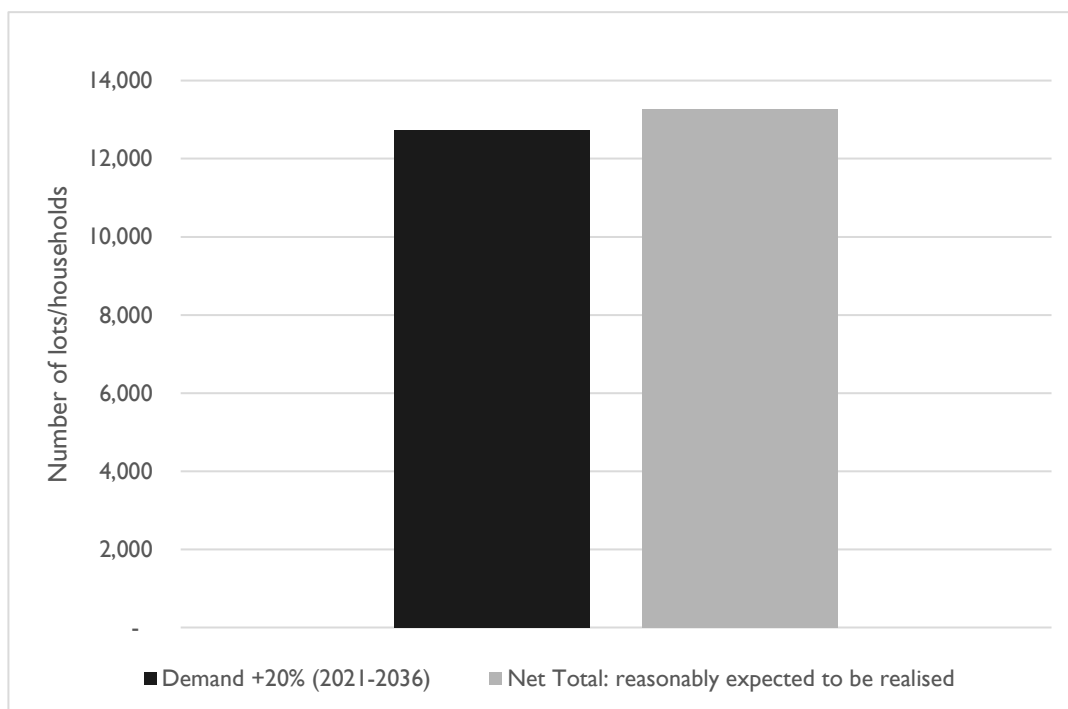


Figure 1. District-wide housing analysis: household demand (+20%) (2021-2036) vs 'reasonably expected to be realised' supply

13. Changes to the as-notified PWDP zoning recommended by the s42A authors is generally slight and has been limited by the scope of submissions. The most significant change, with respect to supply, comes from the recommended Medium Density Zone (MDZ). There have also been some recommendations, although again limited in scale, by the s42A authors for land to become Future Urban Zone (FUZ).
14. The yields from FUZ areas have not been factored into these 'supply' analyses given the RMA Schedule 1 processes recommended to be required in order to realise the zoning potential³. On this basis, I have opted to separate the FUZ capacity from those areas that are being recommended to be 'live-zoned'. I believe this to be a more pragmatic approach, avoiding over-inflating what level of supply might be reasonably expected to be realised during the life of the plan. In some instances, areas that were proposed to be 'live-zoned' in the notified PWDP are now recommended to be FUZ. These situations contribute a reduction in supply in this analysis.
15. The planner recommendations for the use of the MDZ zone have contributed significantly to the overall market feasible capacity. However, it has meant that when the 'reasonably expected to be realised yield' assumptions are factored in, the reduction between market feasible supply and 'reasonably expected to be realised' is significant. This is due to the high proportion of in-fill development potential that would be unlocked through the Medium

³ Future Urban Zone and Residential Medium Density Zone report prepared by Jonathan Clease dated 26 January 2021

Density Zone but an anticipated low rate of uptake/realisation of in-fill and medium density houses relative to that of greenfield areas.

16. Because of this significant difference, it may be helpful to highlight what ‘market feasible supply’ and ‘reasonably expected to be realised’ refer to. To assist, I have included the below diagram, drawn from the NPS-UD guidance. The policy requires a layering of four forms of development capacity. This effectively creates a filter, starting with the ‘plan-enabled capacity’ and working inwards. ‘Market feasible’ land is where the development economics for a particular form or typology of development passes a threshold and become feasible. The final test is the ‘reasonably expected to be realised’. This is the portion of the market feasible capacity which is estimated to be taken up or realised by the market.

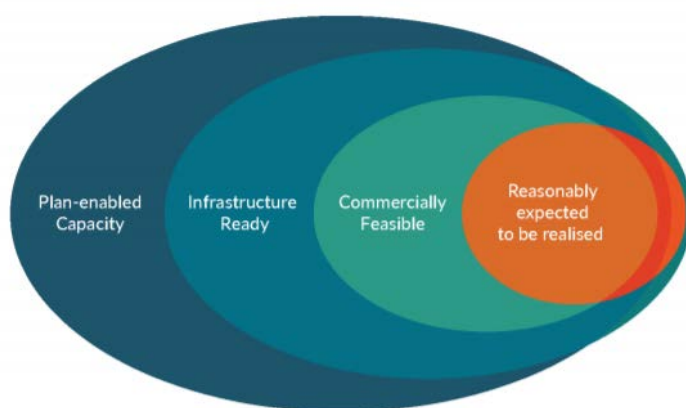


Figure 2. Layering of development capacity (source: NPS-UD Guidance on HBAs, 2020)

17. A key assumption made in this analysis is that all the areas identified for live zoning through either the as-notified PWDP or the s42A recommendations are ‘infrastructure-ready’. Therefore, the analysis here has focused on the commercially feasible and the reasonably expected to be realised yields. It is the latter which is of most importance for decision-makers to focus on with respect to the statutory tests under the NPS-UD.
18. In respect to employment land, the comparison between the operative WDP, the PWDP and the s42A zoning recommendations shows very minimal change. I believe this to be of particular concern, given recent forecasts cited in the FR (refer paras 273-287), as well as anecdotal evidence from the market, which all point to the need for significant quantum of employment land in the district in the coming decades. I acknowledge that the scope from submissions to rezone land to industrial or business will have limited the planners’ recommendations to increase supply.
19. The analysis with respect to employment land across the district’s towns has shown that there is a very limited number of vacant lots. Only a small percentage of these are likely to be available to the market at any one time. The consequences of this is that existing businesses will find it difficult to expand without moving away, and new businesses will struggle to find suitable premises within the district to locate to.
20. The employment land supply results show that vacant industrial lots make up one quarter of supply and when assessed on hectareage basis vacant industrial land is close to half of total

supply (370ha vacant, 520ha non-vacant). The two figures below show this data at the district level.

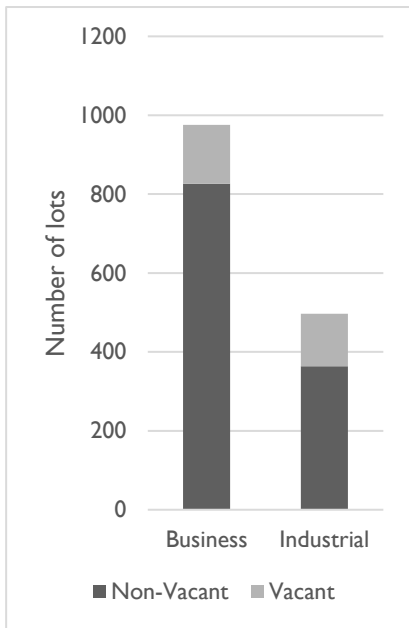


Figure 3. District-wide employment lots: vacant vs non-vacant (based on s42A recommendations)

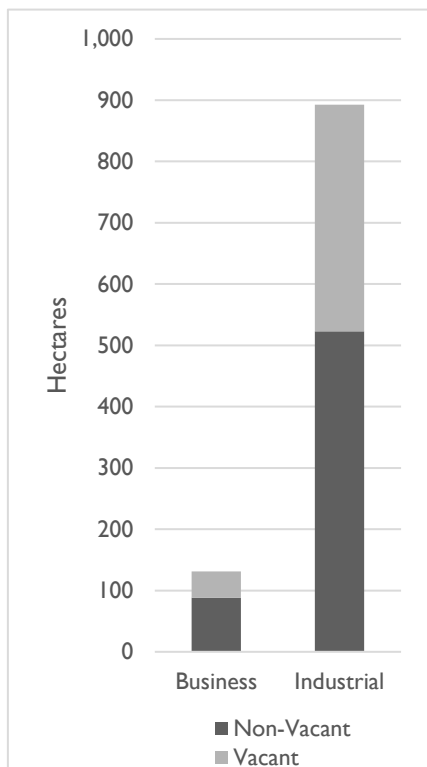


Figure 4. District-wide employment hectares: vacant vs non-vacant (based on s42A zoning recommendations)

Findings

1.4 Employment land

21. The data show that there is generally minimal change with respect to employment land supply across the district between the as-notified PWDP and the s42A recommendations. The figures below summarise the changes of employment lots by town and hectares by town.

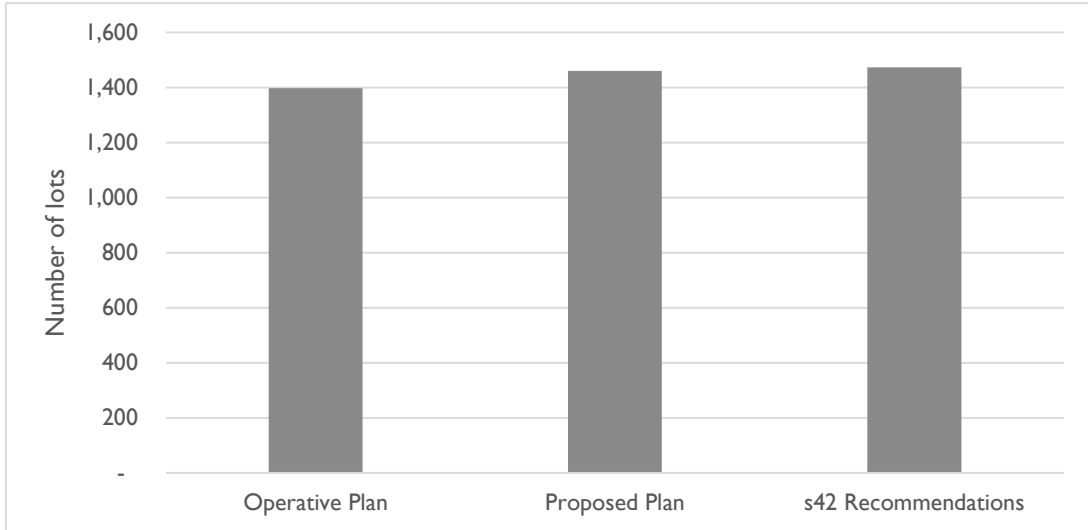


Figure 5. Change in total employment lots (district-wide): Operative District Plan, Proposed District Plan, s42A Recommendations.

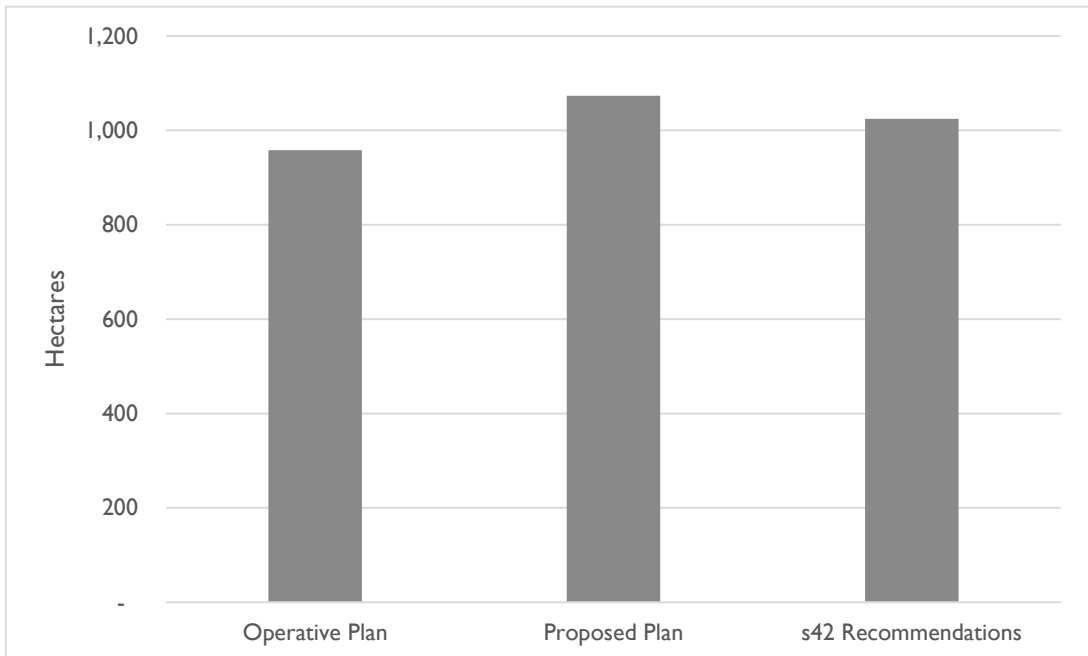


Figure 6. Change in total employment hectares (district-wide): Operative District Plan, Proposed District Plan, s42A Recommendations.

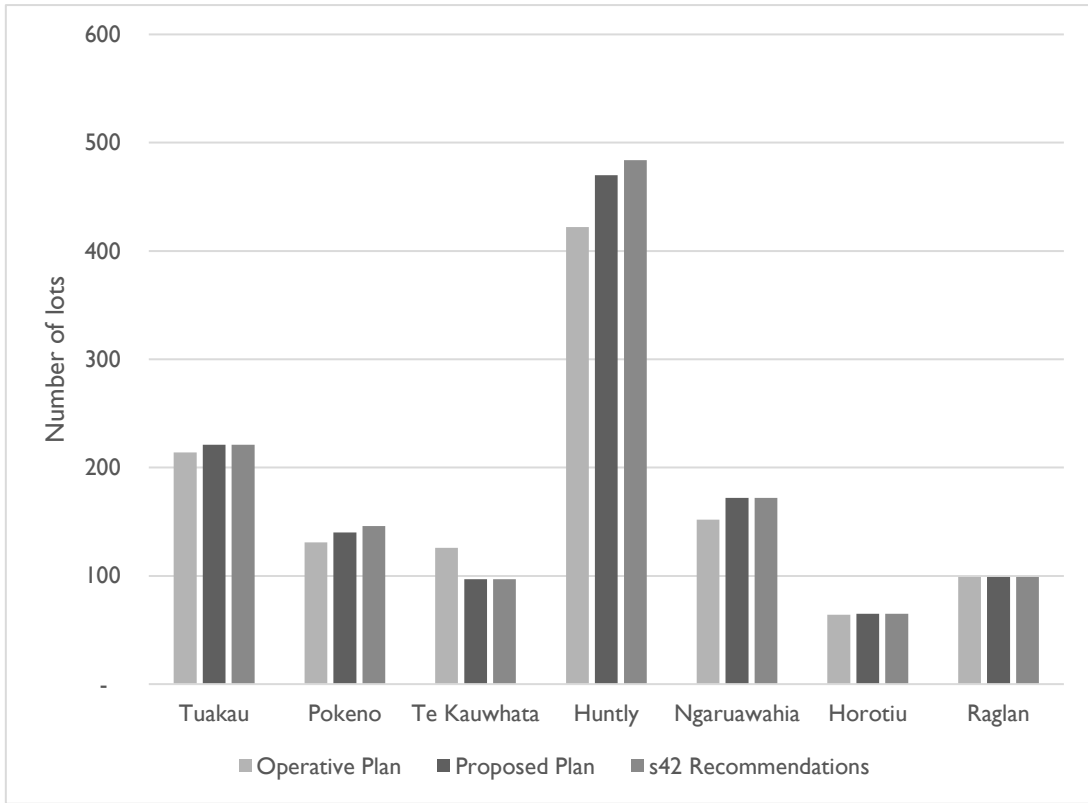


Figure 7 Change in total employment lots (by town): Operative District Plan, Proposed District Plan, s42A Recommendations.

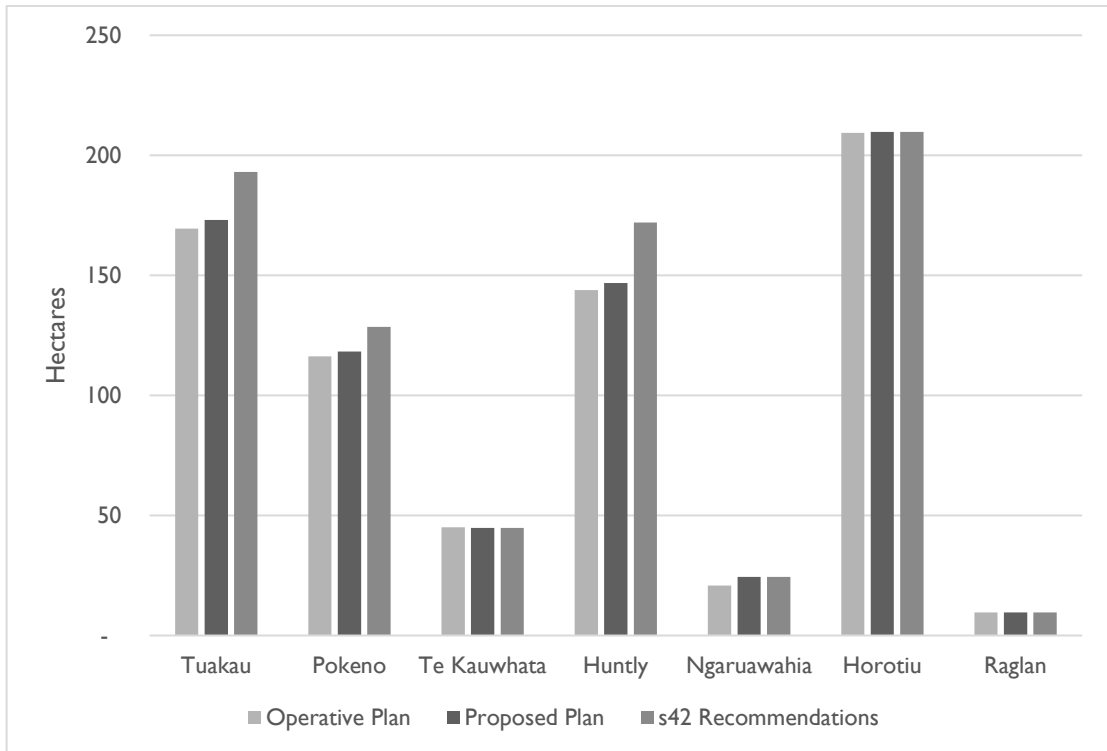


Figure 8. Change in total employment hectares (by town): Operative District Plan, Proposed District Plan, s42A Recommendations.

22. The HBA (2017) undertaken by Market Economics noted that the “industrial land demand in Waikato District is high” (p.58). Demand across the district was identified as being ‘strong’. In terms of commercial floor space demand, the HBA (2017) reported that this will be predominantly in the north of the district but also with “solid growth... observed in Huntly, Ngaruawahia and Raglan” (p.62). Whilst this assessment found that there was sufficient ‘plan-enabled’ supply for the short, medium and long term (taking into account the operative plan and structure plans), specific caution was given with respect to monitoring industrial supply in Huntly and Ngaruawahia. Anecdotal evidence supports these findings: high rates of customer enquiries for business land, issues from prospective businesses reporting an inability to find available employment land, and the rapid uptake of greenfield supply of employment land in Horotiu and Pokeno.
23. The first reporting issue of the 2017 HBA data is the time that has elapsed between when the 2017 HBA analysis was undertaken and now - surplus supply has been taken up and little new supply has been added.
24. The second reporting issue is the definition of ‘vacancy’. An analysis of the HBA 2017 desktop data versus an on-the-ground site investigation illustrates the gap between what the HBA identifies as vacant, versus what the ‘actual’ supply is, i.e. infrastructure-ready, free of constraints and potentially available on the open market. As a result, the HBA reporting overstates the available employment land due to the definitions used to define what is vacant or not, and the methods used for data collection. For example, ‘vacant’ as per the HBA 2017 does not mean it is free from development constraints, has servicing to the ‘gate’, is subdivided and contains ‘build-ready’ sites.
25. More recent analysis undertaken by Waikato District Council with respect to vacancy and non-vacant business and industrial lots in and around the district’s towns, found a lack of latent supply. This data is being used to inform the forthcoming HBA being undertaken by Market Economics, with the aim of improving the accuracy of reporting compared to that which was undertaken in 2017.
26. The recent analysis of employment land, under the s42A zoning recommendations, using the Waikato District vacancy research, has found that 17% of all industrial and business zone lots (excluding heavy industry) are vacant . This reflects a 1% increase to the as-notified PWDP. There is generally a higher proportion of vacant industrial lots (23% or -94 vacant lots) versus vacant business lots (14% or 124 vacant lots).
27. When assessing vacancy on a hectarage basis, Tuakau, Pokeno, and Te Kauwhata all have a high proportion of vacant hectarage but a low proportion of vacant lots. In the remaining towns - Huntly, Ngaruawahia, Horotiu and Raglan - the low proportion of vacant lots is mirrored by the low proportion of vacant hectarage. A high proportion of vacant hectarage and a low yield suggests that these areas are not ‘build-ready’.

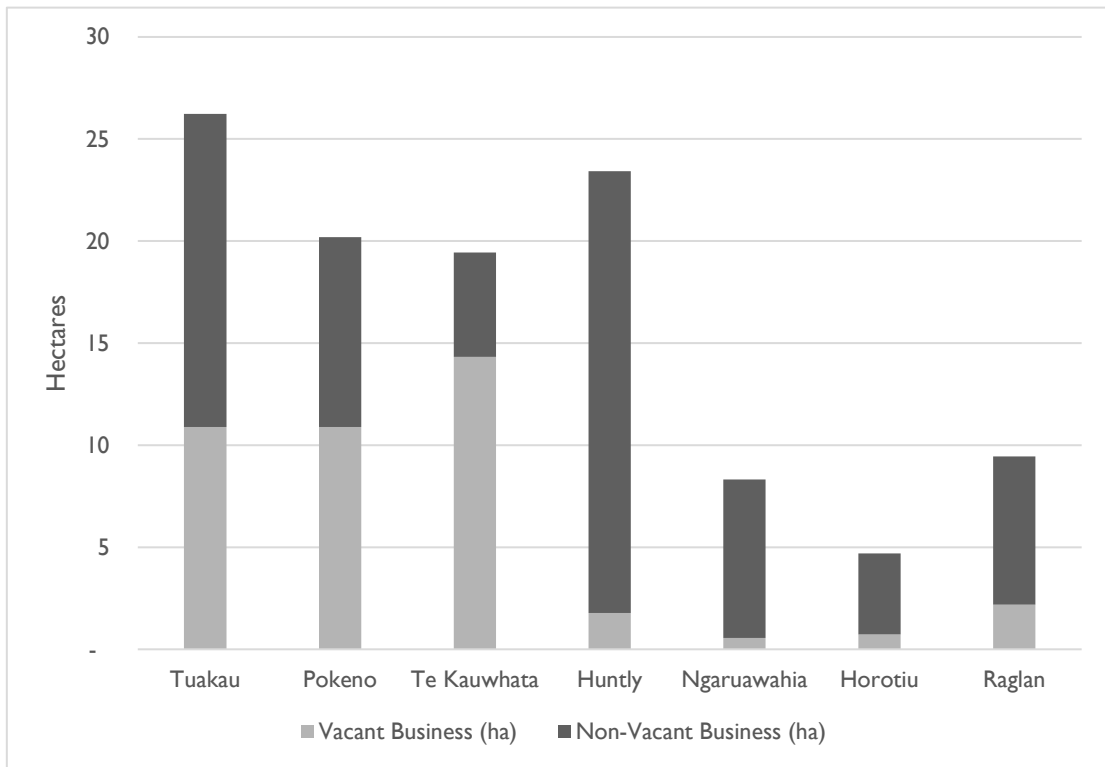


Figure 9. Vacant vs non-vacant business lots by town

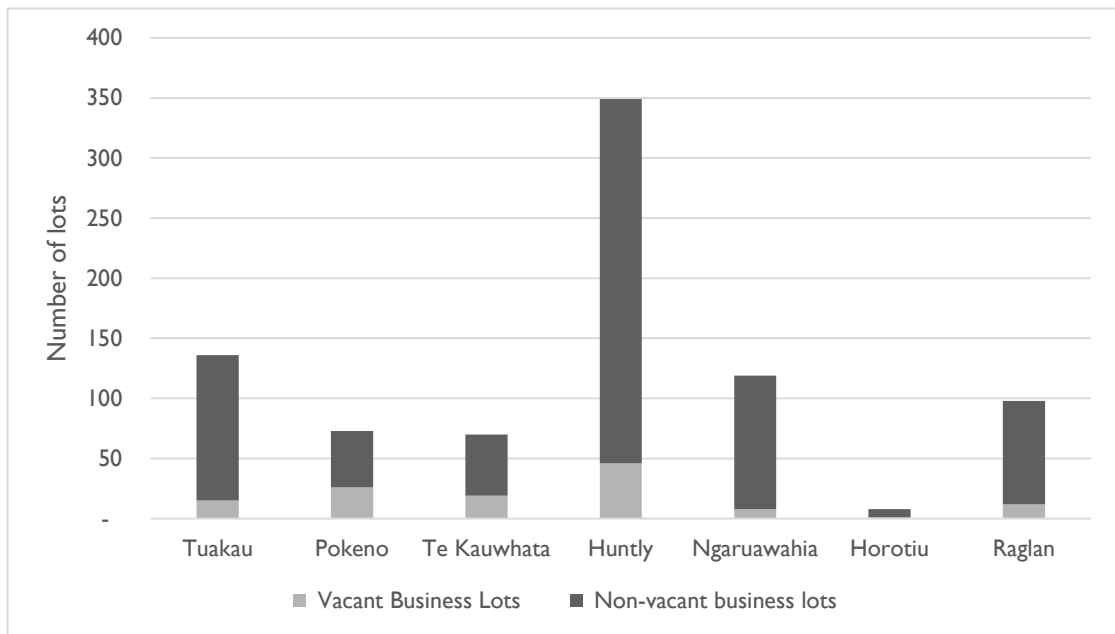


Figure 10. Vacant vs non-vacant business (ha) by town

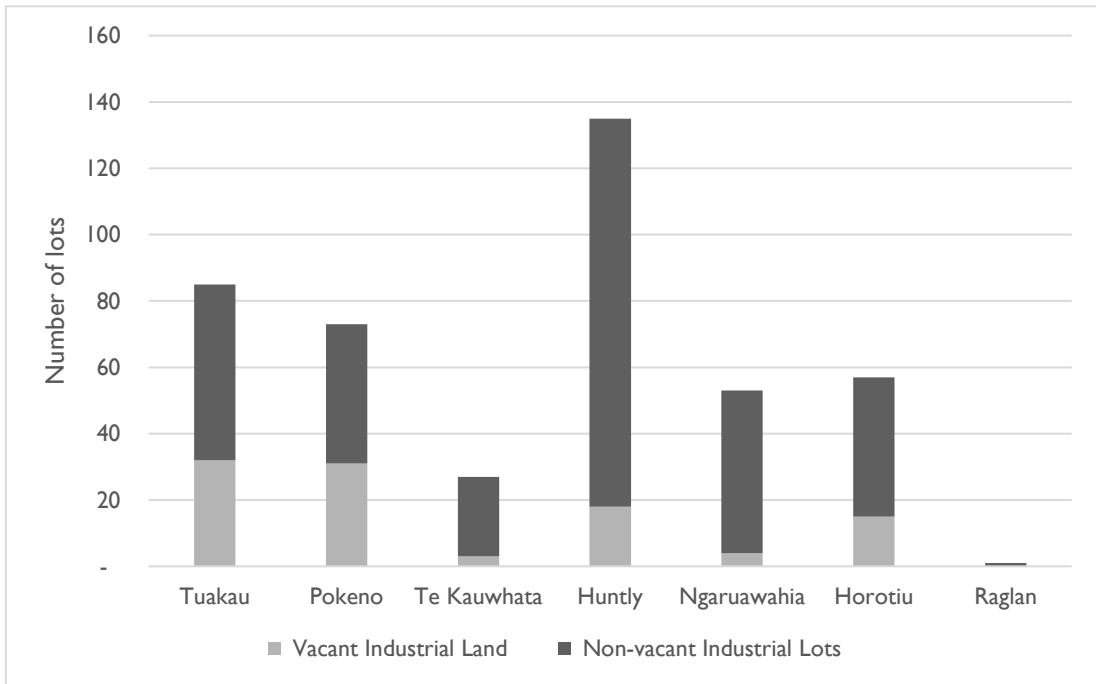


Figure 11. Vacant vs non-vacant industrial lots by town

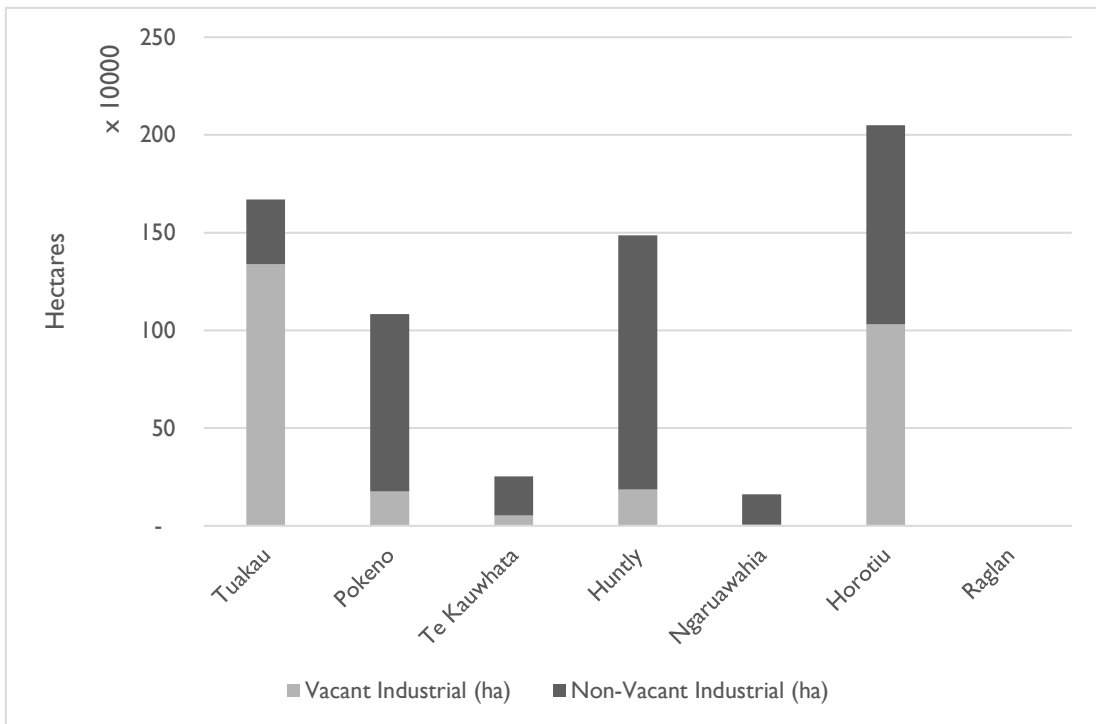


Figure 12. Vacant vs non-vacant industrial (ha) by town

28. Industrial lot vacancy vs non-vacancy data illustrates a higher proportion of vacancy in Tuakau, Pokeno, and Horotiu, with moderate levels in Huntly. There are a number of factors which mean that, whilst the data is showing these sites as vacant, the likelihood of these being available to the market is low. In Pokeno for example, the main supply of industrial land is within the Pokeno Industrial Park, much of which has now been taken up. In Horotiu, much of the reported vacancy is for land which is still being developed (e.g., Northgate Business Park) and not 'market-ready'.
29. Tuakau is one of few areas in the district where there is zoned greenfield industrial land which has not yet been taken up. Anecdotal reasons for this are its location and accessibility, and that there are more 'business-attractive areas' such as Pokeno to locate to instead. Recent enquiry for development in this industrial zone suggests that this might now be about to change due to the lack of supply elsewhere.
30. The vacant industrial land analysis in hectares by town emphasises the shortage of supply as identified in the vacant lots data. It shows that, in all the towns except for Tuakau and Horotiu, there is a shortage of supply.
31. There is general consensus among the various reports on future demand for employment land in the Waikato District, as referred to the FR, that there will be significant demand into the future. While the specific numbers vary, all reports highlight a large demand for employment land in the district over the short, medium and long term. If this is not able to be rectified through the PWDP process, due to the limited scope of submissions, council will need to consider responding through a separate process.

1.5 Residential supply

32. The findings from the analysis of residential supply have shown that there are modest changes in the quantum of market-feasible supply between the as-notified PWDP zoning and the s42A zoning recommendations.
33. A market-feasible analysis for the greenfield areas recommended by the s42A authors was not available for areas which were neither identified in the PWDP or in Waikato 2070. As a result, lot yields for these areas have been counted as infrastructure-ready, market-feasible and 100% likely to be realised. Therefore, the theoretical plan capacity has been assumed to equal a 1:1 to houses delivered. For some greenfield areas this is an acceptable assumption, due to factors such as single ownership and known developer intent and capability. In others, where ownership is fragmented, serviceability is unclear and developer capability is questionable, this assumption is likely to overstate the supply. The areas of land recommended to be rezoned which are not identified in the PWDP or Waikato 2070 are generally limited.

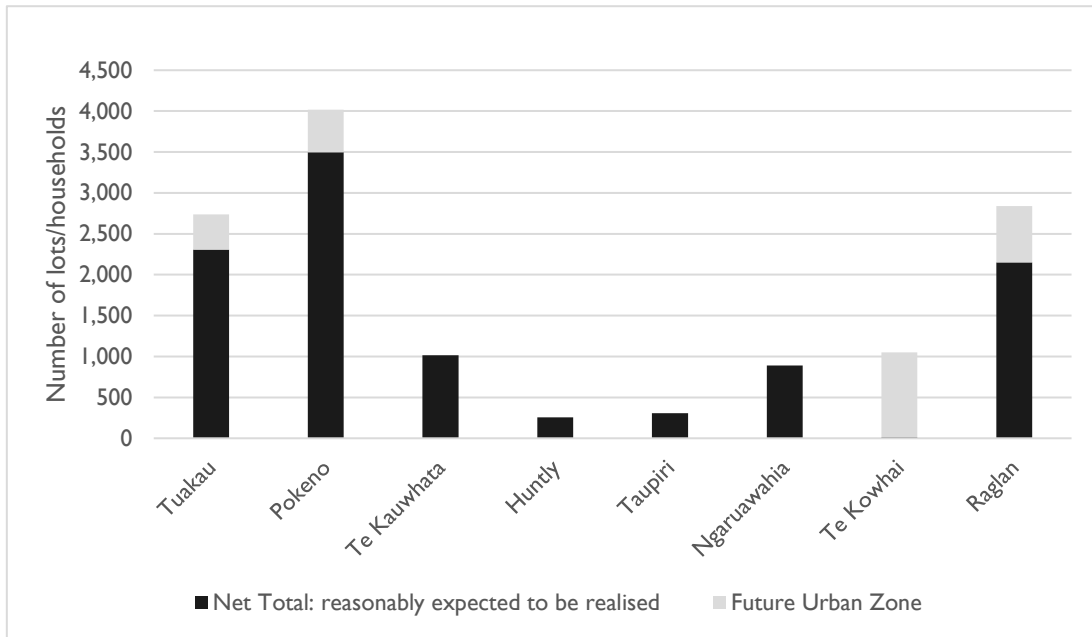


Figure 13. Household supply analysis by town: reasonably expected to be released *plus* future urban zone

34. The application of the Future Urban Zone (FUZ) by s42A authors, based on the analysis, seems to have been relatively sparingly used (based on lot yield from the areas identified as FUZ). The main application of the FUZ has been in Te Kowhai, with more than 1,000 lots. The other towns where it has been applied are: Tuakau, Pokeno and Raglan, with total yields of between 400 and 600 lots.
35. The main contributor to increasing supply between the PWDP and the s42A zoning recommendations is the recommended introduction of the Medium Density Zone (MDZ). This reporting has relied on the market-feasible assessment done by Property Economics on behalf of Kainga Ora⁴. I have undertaken an assessment against the draft Market Economics 2020 feasible capacity assessment⁵ developed for the HBA for these spatial areas under the current residential planning provisions versus that of Property Economics, based on their feasible capacity formulas and the change in zoning controls requested by Kainga Ora.
36. The findings show a 4 to 6 times increase in the market-feasible supply. The reported yield from Market Economics in the short to medium term under the 'in-fill' scenario⁶ is twice the yield than that reported from the 'redevelopment' scenario⁷. This suggests, based on Market Economics' feasibility analysis, that the underlying land values support some in-fill subdivision occurring, but do not yet support full-site redevelopment.

⁴ Summary data was provided by Kainga Ora (submitter 749) on the request of WDC to assist with this analysis.

⁵ Using the 'medium term' in-fill feasibility supply data to align to the demand period being modelled.

⁶ The subdivision of an existing site, with the retention of the existing dwelling

⁷ Full site redevelopment, removal of the existing dwelling

Table 1. Feasible Capacity Zone Assessment: Medium Density Spatial Area (all towns)

Medium Density Market Feasible Capacity	3,547
Market Feasible In-Fill Capacity	533
Market Feasible Redevelopment Capacity	248
Market Feasible Greenfield Capacity	290

37. A further piece of work would be to interrogate the assumptions and formulas used to inform the Property Economics work versus those used to underpin the Market Economics work, to ensure consistency of assumptions and therefore comparable results. This report takes this data at face value.
38. The addition of the MDZ offers a significant increase in the market-feasible supply for the areas in which it is being recommended. As a result, it has a large impact on the total market-feasible yield for the towns, when combining both greenfield and brownfield net supply (based on the s42A zoning recommendations but excluding the FUZ capacity). This is shown in the figure below.

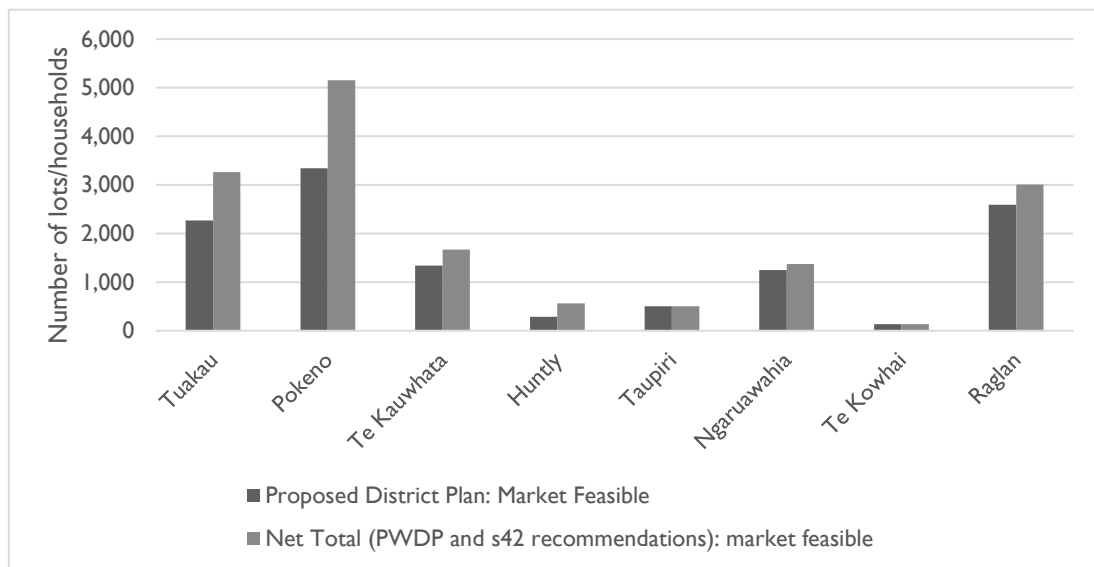


Figure 14. Housing supply analysis, change in market feasible capacity: PWDP vs s42A zoning recommendations

39. As noted earlier, the final step in the assessment for determining supply is what is 'reasonably expected to be realised', as per clause 3.2 of the NPS-UD. In major urban centres such as Wellington, the overall realisation rate of feasible capacity was 66%. The assumptions for stand-alone development were 88%, 63% for terraced housing and 54% for apartments. For

greenfield development, a 100% realisation rate was assumed⁸. In the Auckland example, actual data has shown only a 17% uptake/realisation of sites identified for in-fill⁹.

40. The below figure illustrates the application of the ‘reasonably-expected to be realised’ step in the HBA assessment. In the modelling work reported on here, a 10% realisation factor was assumed for medium density and in-fill areas.
41. Wellington and Auckland provide good examples at the top end of the spectrum regarding what proportion of market-feasible capacity might be reasonably realised. In both the Wellington and Auckland housing markets the economics supporting medium-density typologies and in-fill development are far stronger than in the Waikato District, yet the actual quantum of brownfield development being realised, relative to what is ‘plan-enabled’ and market feasible, is small. This is an important consideration in this context - that whilst something might be deemed ‘market-feasible’ - what is more important is the likelihood of development actually being realised.

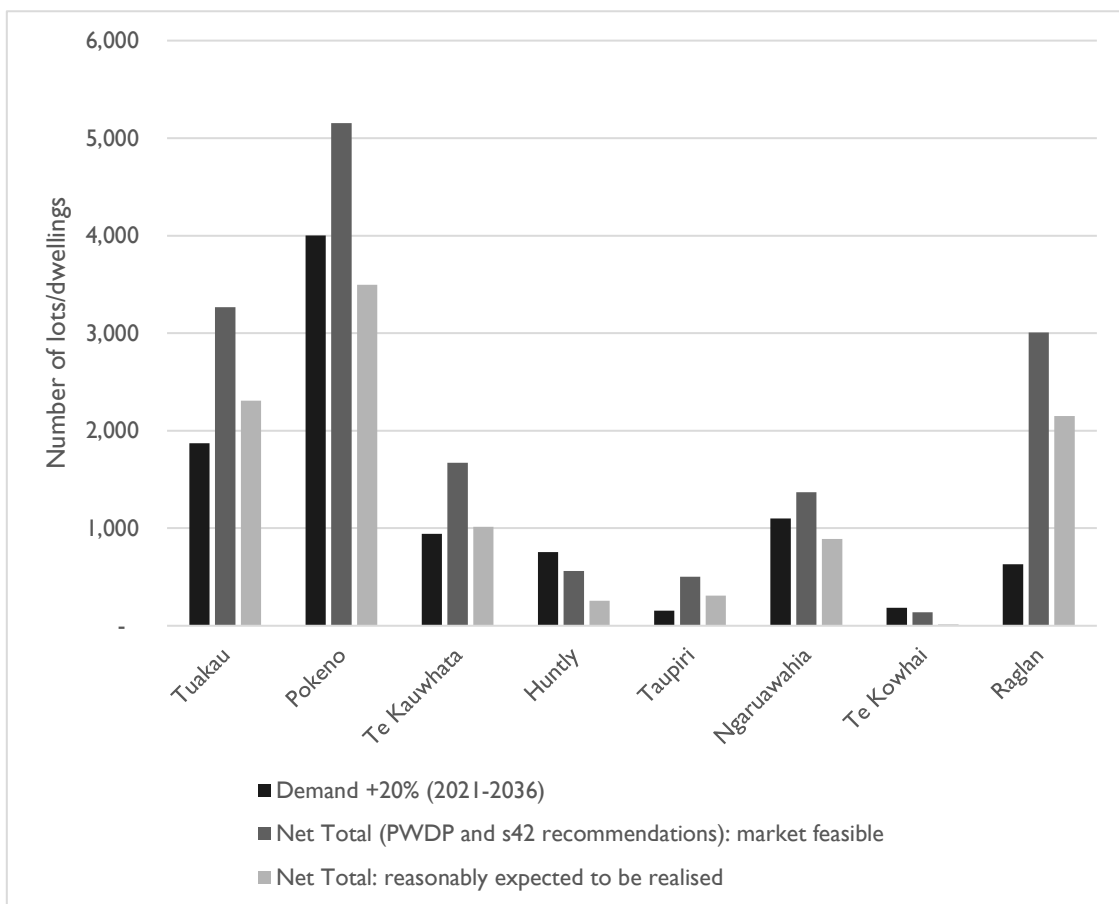


Figure 15. Township housing analysis: demand vs market feasible vs likely to be realised

⁸ Housing and Business Development Capacity Assessment Wellington City Council (2017). Accessed: https://planningforgrowth.wellington.govt.nz/__data/assets/pdf_file/0015/3282/Wellington-Regional-HBA-Chpt-2-Wellington-City-Council.pdf

⁹ National Policy Statement on Urban Development Capacity 2016: Housing and business development capacity assessment for Auckland December (2017). Accessed: <https://knowledgeauckland.org.nz/media/1583/nps-udc-housing-and-business-development-capacity-assessment-for-auckland-dec2017.pdf>

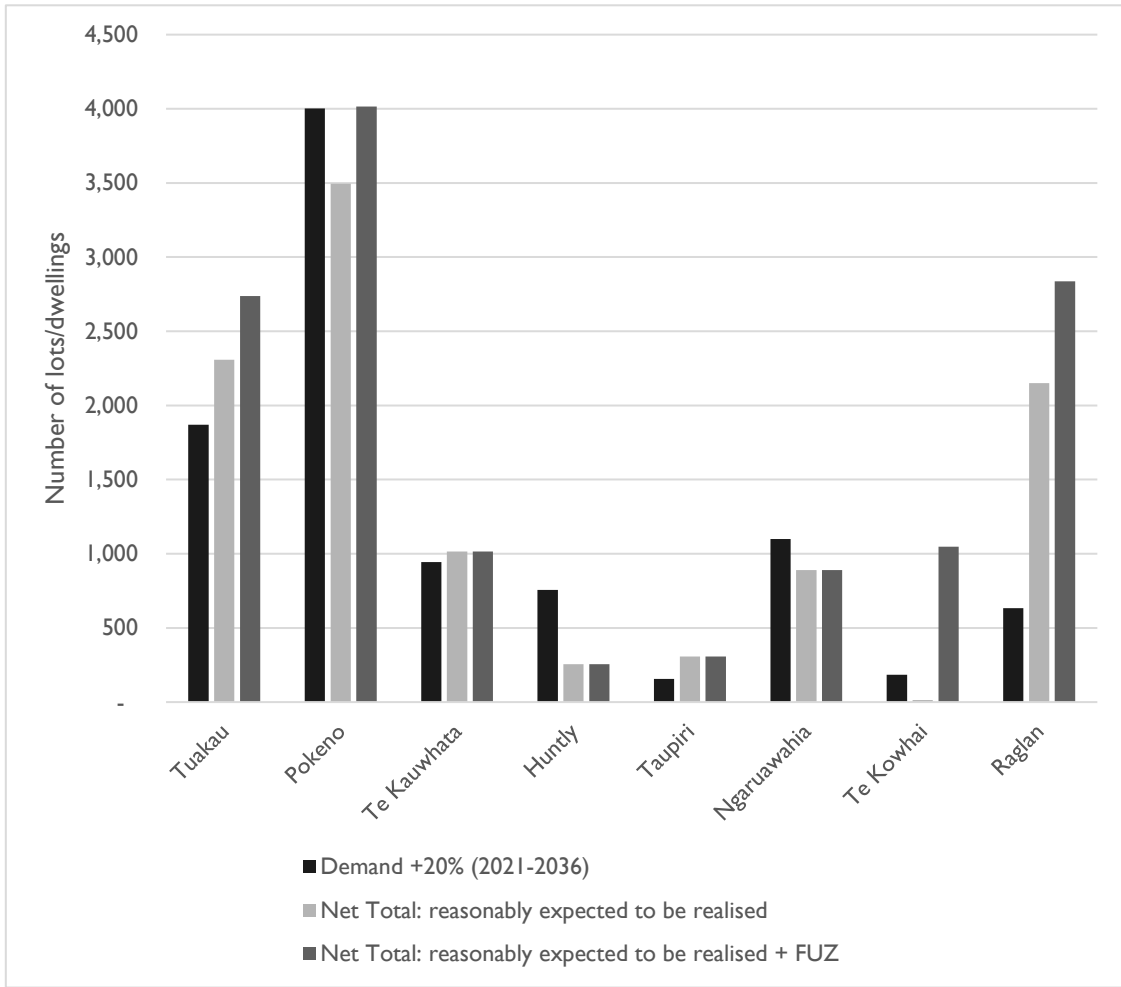


Figure 16. Township housing analysis: demand vs likely to be realised vs likely to be realised + FUZ

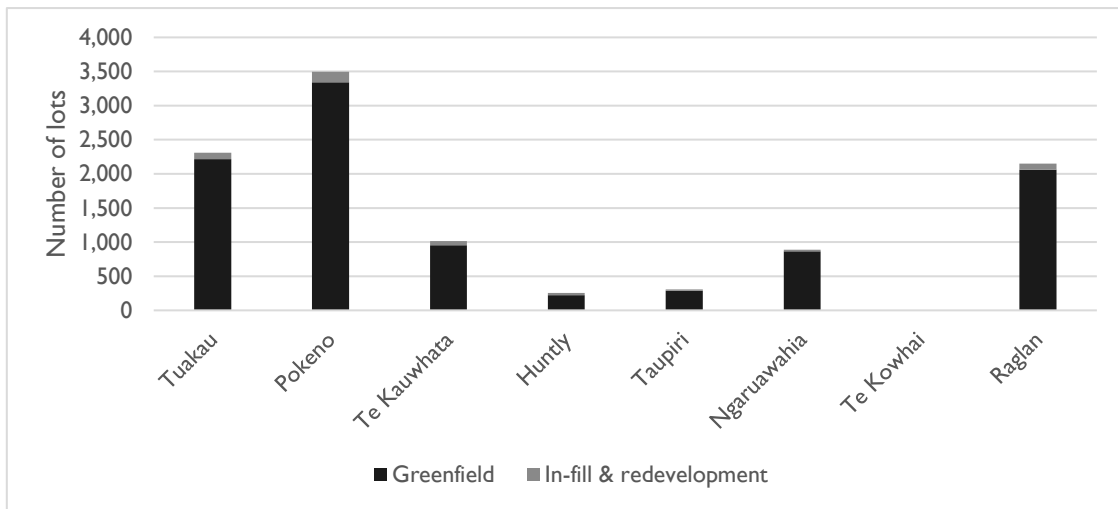


Figure 17. Town housing analysis: total reasonably expected to be realised supply by town (greenfield and brownfield)

1.6 Residential Demand

42. NIDEA modelled two household and population scenarios in 2020 which the following data is based on. As an organisation, Waikato District Council chose to use the medium household and population projection for its planning and investment decisions. However, as explained in the following section, there is a multitude of possible ‘futures’, which mean that the district could grow faster or slower than the medium projection.

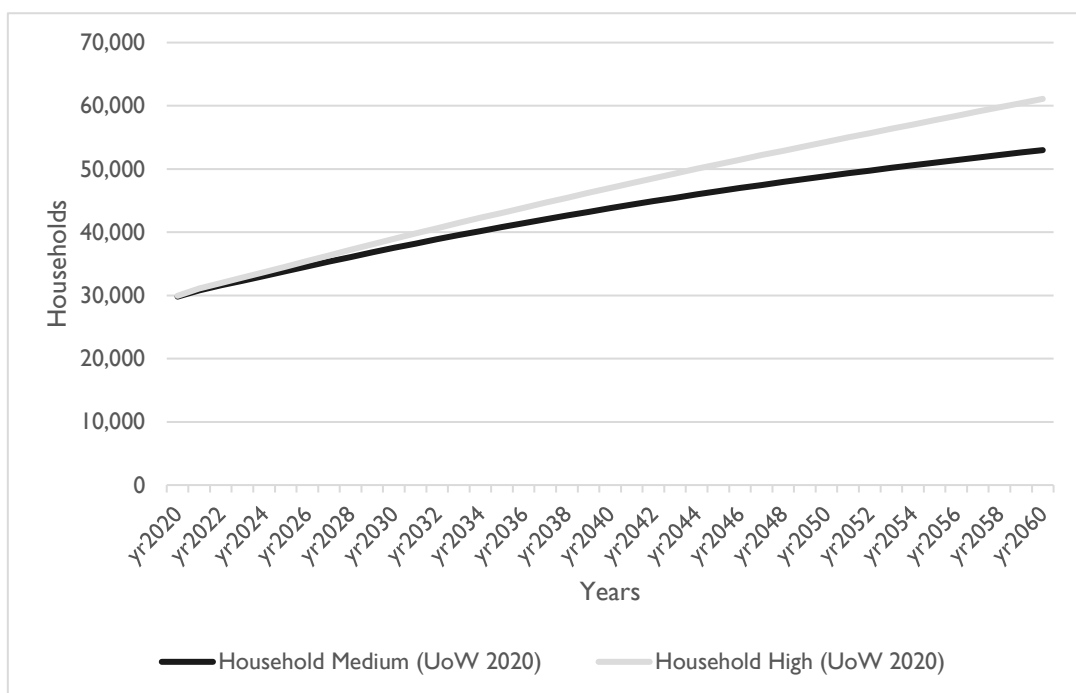


Figure 18. Waikato District Household Projection (medium, high: 2020-2060)

43. The below graphs set out the analysis for each town with respect to the forecast medium demand over the short term 2021-2024, short and medium term 2021-2031 (the statutory life of the plan) and 2021-2036 (a “least regrets” planning horizon).

Table 2. Tuakau household demand analysis (medium projection)

Net change in demand			Net change in demand +20%		
2021-2024	2021-2031	2021-2036	2021-2024	2021-2031	2021-2036
321	1,061	1,559	385	1,273	1,870

Table 3. Pokeno household demand analysis (medium projection)

Net change in demand			Net change in demand +20%		
2021-2024	2021-2031	2021-2036	2021-2024	2021-2031	2021-2036
727	2,372	3,335	872	2,846	4,002

Table 4. Te Kauwhata household demand analysis (medium projection)

Net change in demand		
2021-2024	2021-2031	2021-2036
187	606	786

Net change in demand +20%		
2021-2024	2021-2031	2021-2036
224	728	944

Table 5. Huntly & Ohinewai household demand analysis (medium projection)

Net change in demand		
2021-2024	2021-2031	2021-2036
143	474	630

Net change in demand +20%		
2021-2024	2021-2031	2021-2036
172	569	756

Table 6. Taupiri household demand analysis (medium projection)

Net change in demand		
2021-2024	2021-2031	2021-2036
33	114	130

Net change in demand +20%		
2021-2024	2021-2031	2021-2036
40	137	156

Table 7. Ngaruawahia household demand analysis (medium projection)

Net change in demand		
2021-2024	2021-2031	2021-2036
227	712	917

Net change in demand +20%		
2021-2024	2021-2031	2021-2036
272	854	1,100

Table 8. Te Kowhai household demand analysis (medium projection)

Net change in demand		
2021-2024	2021-2031	2021-2036
18	79	154

Net change in demand +20%		
2021-2024	2021-2031	2021-2036
22	95	185

Table 9. Raglan household demand analysis (medium projection)

Net change in demand		
2021-2024	2021-2031	2021-2036
125	408	527

Net change in demand +20%		
2021-2024	2021-2031	2021-2036
150	490	632

Table 10. Town household demand analysis (medium projection)

Net change in demand				Net change in demand +20%			
2021-2024	2021-2031	2021-2036	2021-2046	2021-2024	2021-2031	2021-2036	2021-2046
1,781	5,826	8,038	11,510	2,138	6,992	9,645	13,812

Table 11. District-wide household demand analysis (medium projection)

Net change in demand				Net change in demand +20%			
2021-2024	2021-2031	2021-2036	2021-2046	2021-2024	2021-2031	2021-2036	2021-2046
2,263	7,386	10,610	16,165	2,716	8,864	12,732	19,398

Methods, assumptions, and limitations

44. It is of value to briefly traverse some of the methods, assumptions and limitations which sit behind the data presented. This information highlights the challenges in providing accurate supply and demand analysis at a town/village level in the Waikato District. It also emphasises the caution that must be taken when using this data to base decisions on.

1.7 Demand

45. NIDEA (2020) medium household projection numbers have been used as the basis for household demand in the district (refer para 265, FR). The 2016 WISE Statistical Area 2 (SA2) projections were used as the basis for attributing the additional forecast growth (from NIDEA 2015 to NIDEA 2020) to SA2s by year. This has enabled the segmentation of the data by 'town/village'.
46. As with all projections, they are based on historical trends with a number of assumptions built in. They do not account for disruptive events. For example, if zoning in an area has not changed for a significant period, and therefore the supply for new houses or business land has been small, the projections will show minimal growth. This is despite the presence of known externalities to us, such as large industries looking to relocate out of Auckland and Hamilton. These events are going to affect the future state, but until a trend exists on the ground it will not show in the data or projections.
47. The further out one projects, the greater the level of uncertainty which exists. The relatively small size (households and population) of the 'towns/villages' in question means that increases to the quantum of urban-zoned land area will likely have a profound impact on the projections for these areas. Conversely, in larger urban centres the addition of new growth areas, subdivisions, and the growth in population and households, have far less impact percentage-wise, due to the relative scale.
48. The above-noted factors create significant challenges for the Waikato District at a town/village level with respect to understanding likely future growth demand. This is in part because the district's towns are small, have not experienced long-run high growth trends or have had any significant changes to zoning. Without stable long-run trends, the projections themselves become highly volatile and can be significantly affected by the sudden change in population and households as a result of zoning changes.
49. The volatility is exacerbated by the relatively small existing household and population levels relative to the proportion of growth. Township-level population projections are heavily influenced if there is a scarcity of zoned land supply, so when new land is zoned and taken up, this has a drastic impact on the population and household projections, as seen in Pokeno.
50. The NIDEA projections provide a low, medium and high projection which covers a forecast band. These are projections, not forecasts. Even outside of the low, medium and high bands there are plausible scenarios that could eventuate. It is up to the territorial authority to determine which projection scenario (low, medium or high) they think is most probable. This chosen projection is then used to inform a number of internal processes such as long-term planning, asset management planning and district planning. The chosen scenario is then the scenario which is also modelled to complete the Housing and Business Capacity Assessment (HBA), as required by the NPS-UD.

51. The decision regarding which scenario is used is generally made by elected members on the advice of staff. It is valuable to use the same growth scenario for all planning processes a council undertakes.

1.8 WISE Modelling

52. The WISE model is used to determine projections at a town/village scale based on current and future land use constraints and zoning. This modelling is run by the Waikato Regional Council and undertaken periodically. The revised WISE modelling is currently underway at the time of writing.
53. The underlying demand figures at an SA2 level referenced in this report and in the FR have been based on the 2016 WISE modelling using a medium projection. The WISE modelling itself contains a range of assumptions and manually-calibrated dimensions. Some of these limitations which are pertinent to this reporting are that the model:
- a) is not an economic model, therefore property prices, comparative land values etc. do not affect the dispersion of growth.
 - b) does not account for cross-boundary spill-over effects from other territorial authorities, for example around the northern and southern boundaries of the Waikato District. Regional migration which drives changes in population in the Waikato District is modelled at a territorial authority level, not at a town/village level. So, without manually calibrating the model, greater growth does not automatically occur around the Waikato-Auckland boundary, as opposed to elsewhere in the district.
 - c) pushes growth to existing nodes, therefore growth attracts growth. The outcome of this is that for areas which are small in size or have had limited historic growth, the model will not tend to load growth into these areas - it will prioritise larger towns and centres.
 - d) allocates growth into the surrounding areas, i.e. rural SA2s, as zoned areas reach capacity.
 - e) is driven by inputs from the local authority staff as to when, where, what time, and the quantum of new zones that they believe might become available based on council strategies as well as known and expected developer demand.

1.9 Statistical Area 2

54. The delineation of urban SA2s is done by Statistics New Zealand in collaboration with the respective territorial local authority. Therefore, these areas generally match those which are already zoned and developed¹⁰. Rural SA2s bordering these urban SA2s sometimes include proposed zone areas which are factored into the WISE modelling but remain classified as rural SA2s.
55. Given this, to accurately anticipate the likely demand for any given town, the urban SA2s, including the neighbouring rural SA2s, have been combined. For example, 'Pokeno' and 'Pokeno Rural' SA2s are combined to determine the total demand for Pokeno.

¹⁰ The definition of SA2s from Statistics New Zealand is: *SA2s capture similar types of areas, such as high-density urban areas, farmland, wilderness areas, and water areas. They also aim to be socially homogenous and capture a community of interest. SA2s generally contain 1,000–4,000 residents, although some SA2s with nil or nominal populations are included to align with New Zealand's topography and local government boundaries. SA2s are built from SA1s.*

56. This approach assumes that most of the growth will occur in the future urban areas of these towns, and that the growth projected to occur in the rural SA2 will be urban.
57. The limitation of this is that the forecast growth attributable to urban areas is marginally inflated, as some of the forecast growth in the rural SA2s will be accommodated within the rural zones. I believe that this is an acceptable limitation, as the constraints to household growth in rural zones is such that the number of additional households into rural zones will be small relative to those into the urban areas. The alternate approach, which is less accurate, would be not accounting for the growth of an urban area which is being captured in a rural SA2.

1.10 Interpreting the competitiveness margin

58. The NPS-UD requires a competitiveness margin. In the short term (1-3 years) and medium term (3-10) this means that Waikato District (classified as a tier 1 growth council) requires +20% margin to be added on top of the demand line and +15% in the long term (10-30 years).
59. This means that Waikato District Council must “provide at least sufficient development capacity for housing and business land, to ensure there is sufficient developable land to meet demand, plus a competitiveness margin”¹¹. The sufficient development capacity to meet expected demand plus the competitive margin becomes the “housing bottom line” for the territorial local authorities and must be inserted into the district plans.
60. The Waikato District Council is included as a tier 1 local authority under ‘Hamilton’ which is classified as a ‘tier 1 urban environment’. ‘Urban environment’ is defined in the policy statement as:
- any area of land (regardless of size, and irrespective of local authority or statistical boundaries) that:*
- a) *is, or is intended to be, predominantly urban in character; and*
 - b) *is, or is intended to be, part of a housing and labour market of at least 10,000 people*
61. Based on this definition, and taking a best-practice approach, my interpretation of this is that a housing bottom line should be applied for the following towns in the Waikato District:
- a) Tuakau
 - b) Pokeno
 - c) Te Kauwhata
 - d) Huntly
 - e) Ngaruawahia
 - f) Raglan.
62. Notwithstanding this, the application of an accurate ‘housing bottom line’ to these towns is fraught with difficulty, and should only be used as an arbitrary guide at best when considering re-zoning submissions due to the limitations set out earlier with respect to how this is calculated.

¹¹ HBA-monitoring-requirements-providing-development-capacity.pdf, retrieved: <https://www.mfe.govt.nz/sites/default/files/media/Towns%20and%20cities/HBA-monitoring-requirements-providing-development-capacity.pdf>

63. The analysis shows the required 'bottom line' over the short and medium term (1-3 and 3-10 years) (2021-2031), the statutory life of the plan assuming a decision is released in 2021 and 1-15 years (2021-2036), assuming decisions are released in 2021, but has a life of 15 years.
64. The analysis undertaken here has focused on demand over a 15-year period - 2021-2036. I believe, given the lag effect on land capacity being realised due to delays in a plan becoming operative, time to deliver infrastructure services, consenting timeframes, construction delays etc, that this is a more appropriate planning horizon to model. It provides sufficient overlap between plan review cycles, greater long-term certainty of land use pattern, and enough capacity to avoid shortages at the end of a 10-year plan life.
65. The PWDP process is not the only opportunity Council has to meet the NPS-UD requirements. The Panel's ability to meet NPS-UD requirements is restricted by the scope of submissions received. As such, there are areas of land that it would be sensible to rezone, but the PWDP did not identify through notification, or for which no submissions were received. Some of these are identified in Waikato 2070.
66. Council is looking to undertake plan variations/changes following the PWDP process to address resource management issues in the district, which include addressing the sufficiency of land supply if required. It would be prudent to avoid chasing a capacity target at the cost of good planning outcomes and the potential failure to meet higher-order policy tests.
67. Additionally, plan-enabled capacity is only one part of it - i.e. just enabling capacity in the district plan will not result in compliance with the NPS-UD.

Conclusion

68. The rezoning recommendations from the s42A planners reflect their professional opinion as to appropriate zoning outcomes for specific towns, as restricted by the scope of submissions. If these recommendations are taken forward verbatim, Waikato District Council would, based on this analysis, meet the quantum of supply required to meet housing demand. The level of headroom afforded to meet that demand (or 'housing bottom lines', as per the NPS-UD) are slim, based on this analysis. As a result, there is a risk of not meeting the broader policy intent of the NPS-UD with respect to allowing sufficient supply for competitive land markets to exist (particularly in and around each town).
69. This analysis has also considered the supply of employment land in the district between the as-notified PWDP and the s42A zoning recommendations. The findings show that there has been marginal change in supply of employment land. This report has not analysed in-depth the findings of the various reports focusing on employment land demand/need versus the supply side findings contained herein. However, based on the findings of the studies discussed in the FR, I do not believe that there is sufficient supply of employment land being put forward for zoning in either the as-notified PWDP or s42A recommendations in the Waikato District to meet demand.
70. The findings in this evidence should be used as a guide only. The process of assessing supply and determining demand is fraught with difficulty in a district with such dynamic and fluid growth pressures. This becomes even more challenging when carried out at a granular, township level.
71. Council will need to continue to improve its monitoring of land supply and demand in the district and, depending on the outcome of the PWDP process, investigate and prioritise plan variations/changes to introduce new zoned areas for residential and employment activities to provide the capacity required by the NPS-UD.

Appendix I: Maps showing rezoning recommendations from the s42A reports