

Before the Independent Hearing Panel

at Taupo

in the matter of: Proposed Plan Change 36 to the Taupo District Plan –
Request under Schedule 1 of the RMA to rezone Rural
Land to Residential at Whareroa North by The
Proprietors of Hauhungaroa No. 6

to: **Taupo District Council**

Applicant: **The Proprietors of Hauhungaroa No.6**

Statement of Rebuttal Evidence by **Kevin Geoffrey Counsell** on behalf of The Proprietors of
Hauhungaroa No.6

Date: 5 June 2020

Background and qualifications

1. My full name is Kevin Geoffrey Counsell. I am a consulting economist, based in Wellington, at NERA Economic Consulting, a global economic consulting firm.
2. My qualifications and experience are set out in my statement of evidence dated 29 April 2020 (Evidence-in-Chief, “**EIC**”).
3. I have read the Expert Witness Code of Conduct set out in the *Environment Court Practice Note 2014*, and I agree to comply with it. I have prepared this evidence in accordance with that Code. I confirm that my evidence is within my area of expertise. I have not omitted to consider any material facts known to me that might alter or detract from the opinions I express in this brief of evidence. I have acknowledged the material used or relied on in forming my opinions and in the preparation of this brief of evidence.

Scope of evidence

4. I have been asked by the Proprietors of Hauhungaroa No. 6 (the “**Proprietors**”) to provide economic evidence in respect of their application to the Taupo District Council (“**TDC**”) for a private plan change to rezone rural land in Whareroa to residential land. The plan change will allow the Proprietors to deliver a development of between 140 and 160 residential properties in Whareroa North (hereinafter referred to as the “**Whareroa Development**” or the “**Development**”).
5. In this rebuttal evidence I respond to certain points raised in the Rebuttal Statement of Mr. Philip Osborne, dated 15 May 2020.

Residential property supply and demand in the Taupo District

6. Both Mr. Osborne and I have assessed the future demand for residential property in the Taupo District using Statistics New Zealand projections for the number of households in the District, through to 2038. Statistics New Zealand presents these projections for three different scenarios, low, medium, and high, which utilise different assumptions for, e.g., fertility, mortality, migration, etc.
7. In my EIC, I noted (at paragraph 34) that recent Statistics New Zealand data suggests the high scenario is a more suitable measure of the District’s future population, and by inference the District’s future number of households.
8. In contrast, Mr. Osborne refers (at paragraphs 3.4 and 3.5) to Statistics New Zealand 2013 and 2018 Census data, showing the average household size in the Taupo District increased between 2013 and 2018. He notes that this results in a lower rate of household growth in the District than can be inferred from population growth. Mr. Osborne states that this leads to household growth which is more in line with the Statistics New Zealand medium projection.
9. I have checked the Statistics New Zealand Census data referred to by Mr. Osborne. This shows that the average household size in the Taupo District increased, from 2.55 at the 2013 Census, to 2.69 at the 2018 Census.¹ However, this change does not necessarily represent a long-term trend which we would expect to continue into the future. I note, for example, that the average household size in the Taupo District from 2006 Census data is higher than both the 2013 and 2018 values, at 2.71.² The increase in average household size between the 2013 and 2018 Censuses that Mr. Osborne refers to could therefore be attributed to short-term volatility in this measure.

¹ These figures are calculated, using data sourced from NZ.Stat, as follows: for 2013, total usually resident population in the Taupo District of 32,907 divided by total households in the Taupo District of 12,882; and for 2018, total usually resident population in the Taupo District of 37,203 divided by total households in the Taupo District of 13,830.

² Calculated using 2006 Census data from NZ.Stat, with total usually resident population in the Taupo District of 32,418 divided by total households in the Taupo District of 11,979.

10. I therefore remain of the view that the forward-looking evidence points more towards the Statistics New Zealand high scenario being the more appropriate measure of the Taupo District's future number of households. Given that the high scenario suggests a shortfall of residential property in the next ten years (as set out in my EIC at paragraph 37), it is not possible to unequivocally state that the Taupo District will face excess residential capacity over this timeframe.
11. In any event, I reiterate the point made in my EIC (at paragraphs 38 and 39): an analysis of supply and demand in the Taupo District provides broad context, but it is preferable to place greater weight on that analysis for Whareroa specifically. Indeed, the Taupo District analysis is based on trends in usually resident household numbers. In contrast, Whareroa has a large share of properties that are not owned by permanent residents (see footnote 11 of my EIC), so trends in permanent resident households are less likely to be relevant.

Residential property supply and demand in Whareroa

12. I address two issues raised in the rebuttal evidence of Mr. Osborne in respect of the residential property supply and demand in Whareroa.
13. The first issue is whether the current 47 undeveloped lots in Whareroa are available on the supply-side to accommodate the future demand for undeveloped lots. In my EIC I noted (at paragraphs 42 and 43) that if the owners of these lots are building, or intending to build, a dwelling on them for their own use, then these lots will not be available to accommodate future demand.
14. Mr. Osborne disagrees, and states (at paragraph 3.16) that:

...potential demand for this area has been based on historical consent trends indicating the potential number of new 'builds' per annum in this area. Subsequently, any currently vacant sites where the owners are 'looking to build' would ultimately form part of this demand.
15. I agree that if an owner is intending to, but yet to start, building on an undeveloped lot, then this may form part of future demand for new builds – although this depends on whether or not the owner already has consent for their intended new build. In any case, as noted in my EIC (at paragraph 43b), some of the 47 lots are currently being built on or partially built on. These lots would not be available to satisfy the demand for new builds. If an owner of an existing undeveloped lot is already building on that lot for their own use, then it is self-evident that no one else is also able to place a new build on that lot, since the existing owner is already doing so. In these circumstances, the undeveloped lot would not form part of supply i.e., the lot will no longer be undeveloped, so would not be available to accommodate someone looking for an undeveloped lot for a new build.
16. The second issue is the analysis of supply and demand in the broader Kuratau/Omori/Whareroa area. I agree with Mr. Osborne that, given the potential substitutability of holiday homes across these areas (as he notes at paragraph 3.16), it can be appropriate to also analyse this broader area. This analysis shows:
 - a. Demand for undeveloped lots of 7-10 lots per annum,³ which equates to demand of 210-300 over 30 years; and
 - b. Supply of, at most, 198 undeveloped lots.⁴ However, this includes the 47 undeveloped lots in Whareroa, not all of which are available to meet demand (as noted above). It also includes undeveloped lots in Kuratau/Omori. While I am not aware of any evidence on whether these lots currently have a dwelling being built on them, it seems plausible that (as with Whareroa), at least some are owned by landowners that are building on them for their own purposes. It is

³ As reported in Property Economics (2019), "Whareroa North PPC36 Economic Cost Benefit Assessment", project no. 51836, November, p.18.

⁴ See Mr. Osborne's Rebuttal Evidence at paragraph 3.18.

therefore likely that the actual supply of undeveloped lots in Kuratau/Omori/Whareroa is less than the 198.

17. With demand of 210-300, and supply of less than 198 in the broader Kuratau/Omori/Whareroa, there is therefore a shortfall (demand exceeds supply) in undeveloped residential lots in this area over a 30-year timeframe.

Implications of COVID-19

18. Mr. Osborne's rebuttal evidence considers the implications of the COVID-19 pandemic on the analysis of residential property supply and demand, and refers (at paragraph 3.9) to an Infometrics report which finds that residential construction in the Taupo District will experience a large downturn. It is not clear how this effect will impact on demand for holiday homes in Whareroa, as it relates to the construction (i.e., supply) of housing. If anything, a downturn in construction suggests that any shortfall in supply to meet demand will be greater than it otherwise would.
19. In any case, I reiterate the point made in my EIC (at paragraph 35), that the impacts of COVID-19 are likely to be in the short-term. In contrast, my analysis of residential property supply and demand is conducted over a longer timeframe, over the next 20 to 30 years.

Infrastructure costs

20. Regarding the infrastructure costs of the Whareroa Development, Mr. Osborne and I agree that the initial infrastructure costs are incurred by the Proprietors,⁵ and that it is reasonable to assume that the benefits that the Proprietors receive from the Development will exceed these costs.⁶ The key remaining issue is whether there are any additional costs incurred by TDC to replace that infrastructure.
21. Mr. Osborne notes that TDC will "consider these costs in its longterm planning" (paragraph 3.23(a)) and budget for replacement costs, "as represented annually by depreciation" (paragraph 3.23(c)).
22. While a depreciation charge is an accounting charge, it is not an economic cost. An economic cost is a cost that is associated with the use of real resources. A discussion of the distinction is provided by Pindyck and Rubinfeld (2009, p. 222) who state:⁷

...accounting cost – the cost that financial accountants measure – can include items that an economist would not include and may not include items that economists usually do include. For example, accounting cost includes actual expenses plus depreciation expenses for capital equipment...As we will see, economists are therefore concerned with economic cost, which is the cost of utilizing resources in production.

23. Accordingly, an accounting depreciation charge is not an economic cost that would be captured in an assessment of economic efficiency (as measured using cost benefit analysis, CBA). In its guide to undertaking CBA, the New Zealand Treasury distinguishes between an economic CBA and a fiscal analysis that might include such accounting charges, and states (paragraph 21):⁸

economic CBA reflects real resource use, while fiscal costings can include resource transfers and accounting items such as depreciation and capital charge.

⁵ See Mr. Osborne's 8 April 2020 Statement of Evidence at paragraph 2.1 and my EIC at paragraph 50.

⁶ See Mr. Osborne's Rebuttal Evidence at paragraph 3.21 and my EIC at paragraph 50.

⁷ Robert S. Pindyck and Daniel L. Rubinfeld (2009), *Microeconomics*, Seventh Edition, Pearson International.

⁸ New Zealand Treasury (2015), "Guide to Social Cost Benefit Analysis", July.

24. The Treasury goes on to explain how including in CBA both the initial infrastructure charges and an annual depreciation charge would amount to double counting. In particular, the Treasury states:
 - a. “Accounting depreciation expenses should not be taken into account [in CBA], since this would double-count the capital investment that has already been taken into account as a cost” (paragraph 24); and
 - b. “...a depreciation charge is intended to reflect ‘consumption’ of capital, or the reduction in the value of the capital investment over a specified period, but would double count the cost of an investment if the construction cost was already included in the CBA” (paragraph 34).
25. Accordingly, I remain of the view that it is not appropriate to include the depreciation costs of replacement infrastructure incurred by TDC in an assessment of the costs and benefits of the Whareroa Development.

Transfer of demand from other planned locations

26. A key issue raised in Mr. Osborne’s rebuttal evidence relates to the potential for the Whareroa Development to result in a transfer of demand from other planned and zoned locations in the District.
27. I note firstly that the evidence for any such transfer of demand to Whareroa is equivocal. While there may be a transfer of demand if there is an excess supply of residential land (i.e., the supply of land exceeds demand), the evidence I outlined above and in my EIC shows that there could in fact be a shortage of residential land (i.e., demand exceeds supply), particularly in Whareroa and its surrounding areas.
28. Second, even if such a transfer of demand does occur, I would still expect this to result in a net private benefit (I return to *public* benefits/costs below). When demand shifts from one zoned area to another, this can be seen as a form of competition, and economists generally view the process of competition as resulting in net private benefits.⁹ It is a widely held view in economics that consumers will ultimately be the beneficiaries from competition.
29. I note in particular that:
 - a. As Mr. Osborne argues (at paragraph 3.12), I agree that it may be the case that a transfer of demand results in the net private benefits to different developers netting off, as the profits of the developer where demands shifts to are offset by a lack of profits where demand would otherwise be;
 - b. However, consumers will benefit from this competition. As I explained in my EIC (at paragraph 55), from a consumer’s decision to purchase a section in the Whareroa Development rather than a section on residential zoned land elsewhere, it must be the case that doing so brings the consumer some net benefit. If a consumer did not benefit from a decision to purchase at the Development, rather than elsewhere, then a rational consumer would not make such a decision in the first place.
30. The issue that remains is whether this transfer of demand will result in any additional public costs. Mr. Osborne’s view (at paragraph 3.25) appears to be that there is a public cost. He notes that if there is a transfer of demand, already zoned alternatives may not enter the market, “while still having the community bear an additional cost”.
31. However, there are few additional public costs arising from these already zoned alternatives. The initial costs of these developments are borne by the developer. Any costs borne by TDC/ratepayers for replacement of infrastructure are incurred too far into the future to be of

⁹ Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, Fourth Edition, Pearson/Addison-Wesley, at p.70.

relevance to the 30-year analysis of the costs and benefits of the Development,¹⁰ and (as discussed above) depreciation costs are not a relevant economic cost. The only relevant public costs are the infrastructure maintenance costs incurred by TDC, but these are relatively immaterial.¹¹ There may also be a lag between the time when a development is completed and when actual maintenance costs will need to be incurred, as that will to some extent reflect the use of the infrastructure. To the extent that maintenance costs are incurred further into the future, then they will be less in present value terms.

Conclusion

32. In conclusion, I have found no reason to alter the views set out in my EIC. I remain of the view that there is likely to be a net benefit that results from the Whareroa Development.

Kevin Geoffrey Counsell

5 June 2020

¹⁰ As also noted in my EIC (at paragraph 69) it is difficult to forecast cost incurred far into the future, and the present-day value of costs incurred far into the future is minimal.

¹¹ As discussed in my EIC at paragraph 53.