

IN THE MATTER of the Resource Management Act 1991 ("**the Act**")

AND

IN THE MATTER of a submission pursuant to Clause 6 of Schedule 1 of the Act in respect of the **PROPOSED WAIKATO DISTRICT PLAN** by Pokeno Village Holdings Limited (submitter no. 368 / further submitter no. 1281)

**STATEMENT OF EVIDENCE OF FRASER JAMES COLEGRAVE ON
BEHALF OF POKENO VILLAGE HOLDINGS LIMITED (HEARING 25 –
REZONING)**

1. INTRODUCTION

1.1 My name is Fraser James Colegrave. I am the founder and managing director of Insight Economics Limited.

Qualifications and experience

1.2 I have a first-class honours degree in economics from the University of Auckland (1996). I have 24 years' commercial experience, the last 20 of which I have worked as an economics consultant.

1.3 I have successfully led and completed more than 500 consulting projects. My main fields of expertise are land-use, local infrastructure, and property development. I have worked extensively in these areas for dozens of the largest developers in New Zealand. In addition, I regularly advise Local and Central Government on a range of associated policy matters.

1.4 Recent clients include AMP Capital, Auckland Airport, Auckland Council, Argosy Property, Christchurch City Council, Eden Park, Foodstuffs, Fulton Hogan, Hamilton City Council, Harvey Norman, Kmart, Neil Group, NZ Productivity Commission, and Todd Property.

1.5 My land-use work covers the full spectrum from due-diligence feasibility studies through to plan changes and resource consents. As a result, I regularly provide expert evidence at hearings before Councils, the Environment Court, Boards of Enquiry, Independent Hearing Panels, and the High Court of New Zealand.

- 1.6 I have significant work experience in the Waikato district, including advising Waikato District Council in respect of the private development agreement for the land owned by Pokeno Village Holdings Limited ("PVHL") in 2012. In addition, I recently advised the Council in respect of a private development agreement for the Synlait factory in Pokeno. I therefore have a solid working knowledge of the local area and its infrastructure situation.

Involvement in project

- 1.7 I was engaged by PVHL in October 2020 to assess the need for additional zoned land in the area, and to assess the potential effects of rezoning sought by submitters on the Proposed Waikato District Plan.
- 1.8 I last visited the site in early November 2020.

Purpose and scope of evidence

- 1.9 The purpose of my evidence is to consider the likely supply and demand for residential land in Pokeno, and to consider possible economic issues arising from any potential imbalance.
- 1.10 Specifically, my evidence will:
- (a) Review and critique the Council's latest estimates of dwelling supply and demand for Pokeno (Section 3);
 - (b) Consider the potential economic effects of any imbalances arising. (section 4); and
 - (c) Provide a brief conclusion. (Section 5)
- 1.11 A summary of my evidence is contained in Section 2.

Expert Witness Code of Conduct

- 1.12 I have read the Code of Conduct for Expert Witnesses, contained in the Environment Court Consolidated Practice Note (2014) and I agree to comply with it. I can confirm that the issues addressed in this statement are within my area of expertise and that in preparing my evidence I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

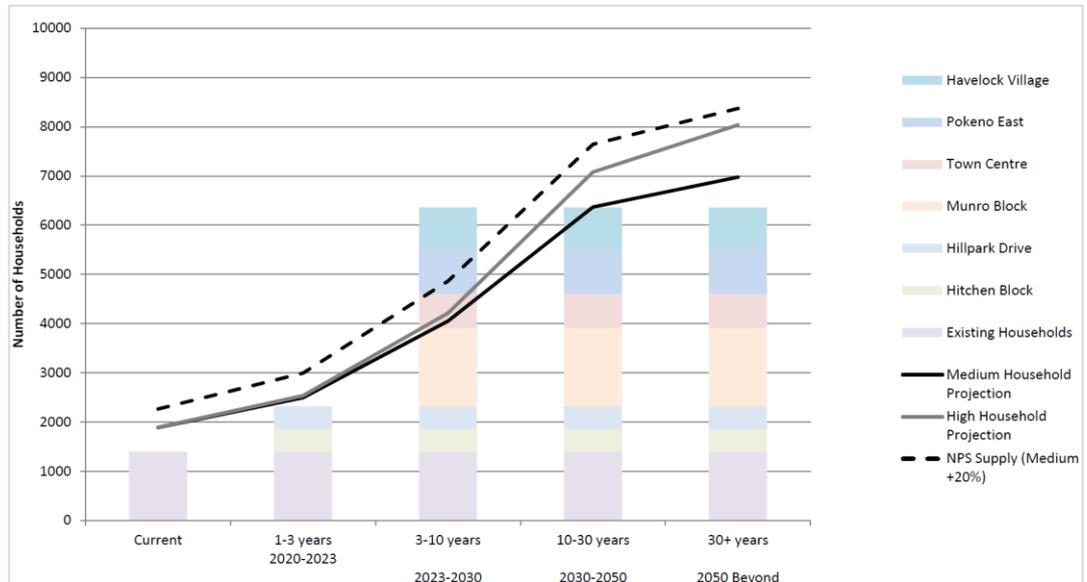
2. **SUMMARY OF EVIDENCE**

- 2.1 This evidence critically examines the amount of additional residential land sought for rezoning in Pokeno and reconciles it with likely demand. It shows that the various rezoning proposals seek to enable residential land supply that far exceeds likely demand, even over a 30-year timeframe.
- 2.2 While a generous supply of land is generally a good thing, the wholesale over-provision of residential land can have serious economic consequences, including the exorbitant costs of servicing each new lot with bulk infrastructure to enable development. In addition, potential imbalances between residential and non-residential land provision may cause excessive commuting to Auckland for work, thereby incurring a range of economic and environmental costs.
- 2.3 Given that the District Plan will be reviewed again in 10 years, and noting that existing capacity is sufficient to meet likely demand over the short term, I recommend that some of the land identified for rezoning be put into a future urban zone until more work is done to accurately identify future needs, and more detailed plans for the efficient provision of infrastructure have been devised.

3. **PROJECTED DWELLING SUPPLY/DEMAND BALANCE**

- 3.1 On 14 December 2020, WDC released a report titled "Population, Household and Land Supply Capacity Report- December 2020", which was prepared by Dr Mark Davey.
- 3.2 The report brought together the latest information on future dwelling supply and demand across the district's various towns and villages, and incorporated the latest population projections by Dr Michael Cameron for the district.
- 3.3 Figure 6 on Page 14 of that document presents a graph of the projected demand for dwellings in Pokeno over various timeframes, and overlays the author's estimates of commercially feasible capacity to determine whether any potential supply shortfalls may arise.
- 3.4 That figure is reproduced below.

Figure 1: Pokeno Dwelling Demand & Commercially Feasible Capacity (2020 Update)



3.5 According to this graph, there is a significant current shortfall in feasible capacity, which persists over the short-term (1-3 years), but is addressed over the medium-term (3-10 years) via the rezoning of additional land. By the long-term (10-30 years) however, the shortfall reappears, with projected demand again outstripping the latest estimates of feasible capacity.

3.6 I acknowledge that Pokeno is a fast-growing area that is likely to experience strong and sustained dwelling demand well into the foreseeable future. However, this graph is factually incorrect for several reasons, so I disagree with the implications arising from it.

3.7 First, the purported gap between current supply and demand reflects an unfortunate mismatch between the geographic scope of supply and demand. Specifically, the demand projections include existing households in the adjacent Pokeno Rural SA2, but the mauve-shaded supply column labelled "existing households" excludes them. As a result, this graph incorrectly portrays a significant existing shortfall in dwelling supply today.

3.8 Second, this graph ignores the fact that there is still commercially feasible capacity for approximately 1,150 additional dwellings under the ODP zoning, as set out in Mr Botica's evidence. This affects not only the current supply/demand balance, but it also addresses the short-term deficit portrayed in the Council's graph.

3.9 Third, the demand projections appear to apply buffers of 20% to all households, whereas the NPSUD buffers (of 20% and 15% for various

timeframes) should apply only to additional households. As a result, this graph overstates current and future demand.

3.10 Fourth, the additional capacity identified in this graph does not appear to reflect the extent of residential rezoning sought by submitters via this process.

3.11 For example, I understand that many rezoning requests were received in and around Pokeno during earlier stages of the plan review process.¹ Table 1 summarises those that would provide residential capacity. Overall, if granted, the various proposals would see more than 666 hectares of additional land being rezoned in and around Pokeno for mainly residential purposes.

Table 1: Summary of Residential-Related Submissions for Pokeno & Surrounds

Submission	Submitter	Zoning Sought	Land area (ha)
89	CSL Trust & Top End Properties Limited	Residential, Neighbourhood Centre and Medium Density Residential	49.6
97	Pokeno West	Residential, Neighbourhood Centre and Medium Density Residential	158.9
451	Steven and Teresa Hopkins	Residential or Countryside Living or Village	20.7
89	CSL Trust & Top End Properties Limited	Countryside Living	45.6
754	P van Leeuwen	Countryside Living	81.1
205	Rainbow Water	Residential	16.1
360	K Yang	Residential	11.6
458	D Lawrie	Residential	43.6
458	D Lawrie	Residential	33.4
524	A Noakes	Residential	23.5
598	Withers Family Trust	Residential	27.0
862	Havelock Village Limited	Residential	97.6
502	S G Noh	Residential	4.9
749	Kainga Ora	Medium Density Residential	52.8
Total Land Area			666.4

3.12 To identify the additional dwellings associated with these submissions, I converted the land areas underlying each to estimates of dwelling capacity using density targets contained in the Proposed District Plan ('PDP'). These indicate that 12-15 residential lots should be created per hectare of residential zone land, and 8-10 residential lots per hectare of village zone land. For the medium density residential zone, I estimated an average yield of 22.5 dwellings per hectare, with an average of two per hectare in the country living zone. For the two submissions seeking a range of zones

¹ Noting that some of the submissions covered the same subject land.

(submitters 89 and 97), I applied an estimated average yield of 15 dwellings per hectare. Finally, I assumed that each parcel could accommodate an average of one dwelling per hectare under the status quo (i.e. absent the rezoning proposals).

3.13 Table 2 shows my resulting estimates of the number of additional dwellings enabled by the rezoning proposals over and above the status quo.

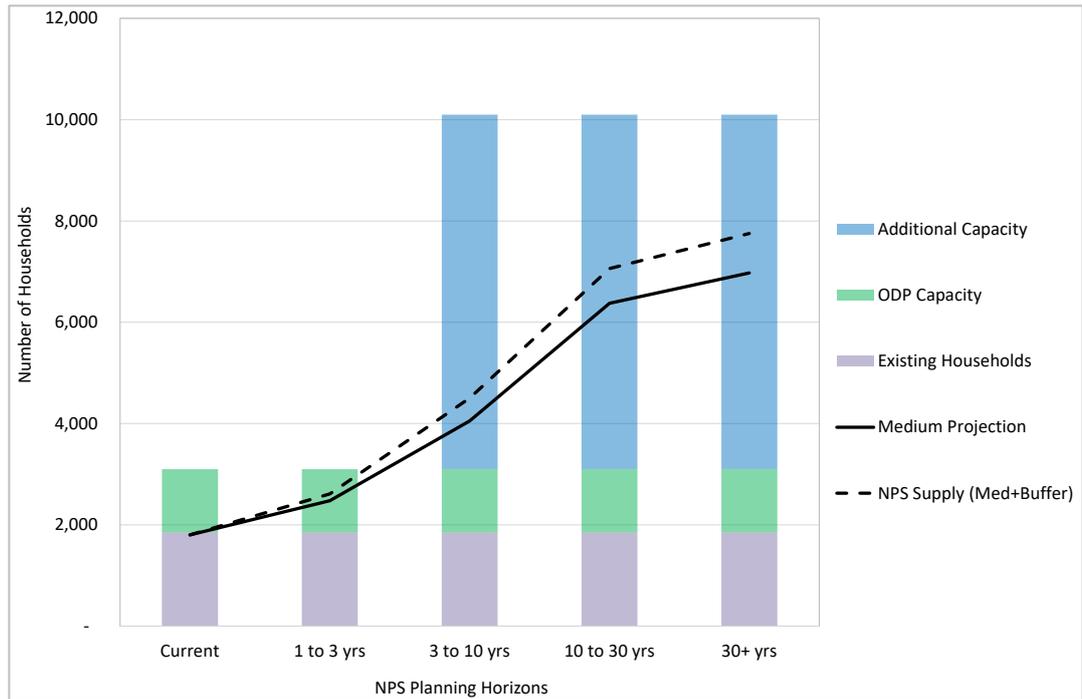
Table 2: Estimates of Additional Dwellings Enabled by Residential Rezoning Submissions

Submission	Submitter	Zoning Sought	Additional Dwellings
89	CSL Trust & Top End Properties Limited	Residential, Neighbourhood Centre and Medium Density Residential	694
97	Pokeno West	Residential, Neighbourhood Centre and Medium Density Residential	2,225
451	Steven and Teresa Hopkins	Residential or Countryside Living or Village	259
89	CSL Trust & Top End Properties Limited	Countryside Living	46
754	P van Leeuwen	Countryside Living	81
205	Rainbow Water	Residential	201
360	K Yang	Residential	145
458	D Lawrie	Residential	545
458	D Lawrie	Residential	418
524	A Noakes	Residential	294
598	Withers Family Trust	Residential	338
862	Havelock Village Limited	Residential	1,220
502	S G Noh	Residential	61
749	Kainga Ora	Medium Density Residential	475
Total Land Area			7,002

3.14 Table 2 shows that the proposed residential and village rezonings in and around Pokeno could accommodate 7,000 new dwellings based on the PDP's density targets. However, the graph above by Dr Davey includes only an additional 4,000 new residential lots over and above those already enabled by the ODP.

3.15 To provide a more accurate picture of the current and potential future supply/demand balance, I recreated this graph while fixing the issues noted above. Figure 2 below presents the result.

Figure 2: Revised Pokeno Dwelling Demand vs Proposed Capacity (2020 Update)



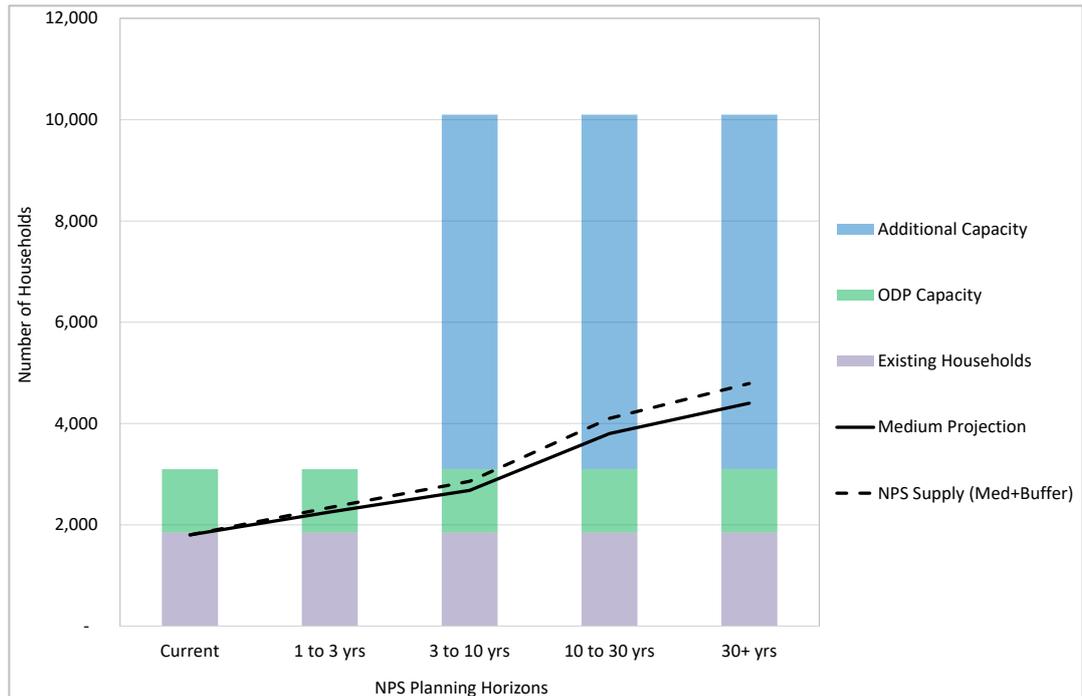
3.16 Figure 2 confirms that there is no current dwelling shortfall, with existing demand equalling the number of existing households (by definition). Further, it shows that existing ODP capacity is sufficient to meet short-term needs, with additional supply required only over the medium- to long-terms. It also shows that the additional supply proposed by various submitters is more than enough – in combination with remaining ODP capacity – to meet demand over the next 30 to 50 years.

3.17 However, it must also be noted that the demand projections embedded in the two graphs above represent a (largely undocumented) step-change compared to the “existing” projections for Pokeno, as reported in the 2017 Housing Capacity Assessment for the FutureProof Councils. In that earlier document, there was long-term demand for an additional 2,300 dwellings in Pokeno over the next 30 years including buffers, whereas the new projections put that figure closer to 5,250. This represents an increase of nearly 130%, but there is very little information to support or justify the increase.

3.18 To illustrate the impacts of these elevated growth projections on the need for additional capacity, I recreated the figure above using the existing growth projections for Pokeno.² The result is shown below, and implies very different PDP zoning requirements to meet even long-term demand.

²<https://wdcsitefinity.blob.core.windows.net/sitefinity-storage/docs/default-source/your-council/plans-policies-and-bylaws/plans/district-plan-review/section-32-reports/strategic->

Figure 3: Dwelling Demand vs Proposed Capacity (2017 Demand vs 2020 Supply)



3.19 Figure 3 confirms that continuing to use the existing/2017 demand projections has a significant impact on the quantum of rezoning required, and its associated timing. Specifically, if the existing demand projections are used in lieu of the new ones, ODP capacity is sufficient over both the short- and medium-terms, with new supply required only over the longer term.

3.20 Given the lack of documentation explaining how the new demand figures were derived, I believe that some caution should be exercised when determining how much additional land will be required to meet dwelling demand growth over time.

4. **ECONOMIC ISSUES ARISING FROM SUPPLY-DEMAND IMBALANCE**

4.1 As an economist specialising in land and property development, I generally support a liberal supply of zoned land to meet likely future demand. Not only does this foster competition and hence improve economic efficiency, but it can also help to temper inflationary pressures and thus keep prices more stable and affordable than they likely would have been otherwise.

4.2 However, conversely, a gross over-supply of rezoned land can pose significant economic risks and challenges, which I elaborate on below.

Lack of Holistic Planning

- 4.3 As explained in Mr Scrafton's evidence, while each rezoning proposal may make sense in isolation, there is an absence of strategic/holistic planning to ensure that they make sense overall when considered as a whole.
- 4.4 This lack of strategic oversight reflects both the limited time and resources available to assess the various proposals (in Pokeno and elsewhere across the district), plus the direction for submitters to consider only the impacts of their own proposals. The upshot is that the Council and the community have no assurances that the various proposals promulgated for Pokeno will work together and represent a cohesive and efficient use of the land involved, nor that cumulative effects have been adequately considered and can be appropriately remedied, mitigated, or avoided.
- 4.5 Furthermore, while I understand that some of the submissions presented for Pokeno were supported by structure plans and suites of technical reports, others were not. Hence, not only is there a lack of information about cumulative effects and the overall appropriateness of the various proposals, but some proposals also appear to lack the supporting information required for good decisions to be made.
- 4.6 From an economic perspective, this lack of holistic/structure planning – and the relatively thin evidence base on which some proposals appear to be predicated – raises the risk that land will not be put to its highest and best use, thereby undermining economic efficiency in the district's land market.
- 4.7 Accordingly, and noting the 10-year timeframe associated with the current District Plan review process, I see no need to rezone so much land in one go. A more careful and orderly approach is warranted, with some of the land identified for rezoning instead placed in a Future Urban Zone until likely future dwelling needs are much better understood.

Infrastructure Implications

- 4.8 Another serious issue arising from the various rezoning proposals is the infrastructure implications. Indeed, a live zoning creates a legitimate expectation that land will be serviced imminently to enable development.
- 4.9 However, as I am sure the panel will appreciate, servicing each of the Pokeno rezoning proposals – so that they can be live-zoned and permit development – will require an inordinately expensive suite of capital works.
- 4.10 Not only that, but the Council will also bear the risk if the subsequent uptake of the proposed rezoned land is lower or slower than submitters expect.
- 4.11 To illustrate the extent of these financial costs and risks to the Council, I used its development contributions (DC) policy to broadly estimate the likely cost of servicing the land sought for rezoning in Pokeno.
- 4.12 Even if I confine my attention to just the proposed residential-related rezonings (as shown in Table 1), applying the Council’s current DC charge of roughly \$21,240 per dwelling shows that the cost of servicing the Pokeno proposals is about \$150 million excluding GST. This would be considerably higher if the costs of servicing the other proposed zones are included.
- 4.13 However, this is just the tip of the iceberg. In addition to Pokeno, seven more development nodes are identified in the Council’s 50-year vision (Waikato 2070). If growth were to occur as projected in each of these areas, there would be huge infrastructure/financial implications for WDC. To illustrate, I started by collating the population growth estimates/targets established for the seven development nodes, as set out in Table 3 below.

Table 3: Waikato 2070 Population Growth Estimates (excluding Pokeno)

Development Node	2018	2070	Change
Tuakau	5,000	8,000	3,000
Te Kauwhata	2,000	10,000	8,000
Huntly & Ohinewai	7,000	13,500	6,500
Taupiri	500	4,000	3,500
Ngaruawahia	7,000	10,500	3,500
Te Kowhai	500	4,000	3,500
Raglan	4,000	12,500	8,500
Total	26,000	62,500	36,500

- 4.14 As Table 3 illustrates, the district’s population could grow by an additional 36,500 people (excluding Pokeno) if Waikato 2070’s ambitious targets were met. Assuming average household sizes in the district fall from 2.7 in 2018 to 2.5 in 2070, this equates to over 15,000 additional households by 2070.

This projected household growth, in turn, would require an estimated \$270 million plus GST in infrastructure spend (over and above Pokeno) based on the district's current DC charges.

- 4.15 To summarise, I estimate that a total of approximately \$420 million plus GST would be required to service the infrastructure associated with:
- (a) The submitted rezonings at Pokeno; and
 - (b) The growth outlined in Waikato 2070 for the remaining district growth areas.
- 4.16 As a widely-recognised economic expert on local infrastructure, I consider such a prospect untenable, with the potential risks to the Council also well beyond the realms of acceptability. I also note that the Council would be significantly constrained in its ability to physically deliver so much infrastructure in the short to medium term, even just for Pokeno.
- 4.17 Frankly, a lot more work needs to be done to agree plausible growth paths for each of the district's growth nodes, including Pokeno, before informed rezoning decisions can be made.
- 4.18 Indeed, with Council finances under increasing pressure due to Covid-19, a more cautious approach is now more warranted than ever before.
- 4.19 For example, the Department of Internal Affairs' latest report into the financial implications of Covid-19 on the local government sector³ highlight three points of tension currently facing local authorities:
- (a) Loss of revenue from non-rate sources resulting from lower investment returns and reduced economic activity;
 - (b) Pressure to contain or lower rates as local households and businesses face economic hardship; and
 - (c) The desire to maintain local employment and infrastructure investment as part of the Government's response to the pandemic.
- 4.20 Given the issues identified above, it seems unwise to commit to very large infrastructure spending now. More appropriate targets need to be set for Pokeno and the district's other growth areas, with zonings set accordingly.

³ 'Local Government Sector COVID-19 Financial Implications: Report 3 – Comparison of 2020 annual plan budgets against long-term plans', August 2020

Balance of Residential and Non-Residential Land

- 4.21 Finally, in my opinion it is important to ensure there is an appropriate balance between residential and non-residential land as Pokeno grows, so that there are adequate opportunities to live, work and play locally.
- 4.22 While some future residents will naturally choose to commute to Auckland for work, it would be remiss to inadvertently encourage this via a lack of local business land, and hence a shortage of proximate work opportunities. Accordingly, it is important that consideration also be given to the balance between residential and non-residential land when deciding which rezoning proposal to possibly accept, and which to possibly deny.
- 4.23 To broadly demonstrate the potential impacts of excess commuting caused by a future imbalance between local residential and non-residential land, I considered a hypothetical point in the future where Pokeno’s population reaches 10,000 people (which is expected to occur around 2030 under the Council’s latest population projections).
- 4.24 I then estimated the total annual distance travelled by Pokeno residents if 50% of workers commuted to South Auckland.⁴ Finally, I converted the travel time and cost associated with this additional commuting to dollar estimates using estimated fuel efficiencies, fuel prices, and official rates for the value of travel time sourced from the NZTA economic evaluation manual. Table 4, while Table 5 presents the corresponding annual trip metrics, including total fuel and time costs.

Table 4: Assumptions Used to Calculate Travel Time & Cost

Model Inputs and Assumptions	Value
Estimated population ⁵	10,000
Estimated working age population ⁶	6,800
Number of workers commuting to Auckland	3,400
Days of commute per worker	200
Average Trip Distance -1 way (km) ⁷	22
Average Travel Time - 1 way (mins) ⁸	20
Fuel Economy (litres/100km)	10
Fuel Price (\$/litre)	\$2.00
Value of Travel Time (\$/hr)	\$10.60

⁴ This is conservative, with data from the 2018 Census showing that 75% of people living in Pokeno left the area for work, nearly all of whom commuted to key employment nodes in South Auckland.

⁵ Based on Stats NZ medium population projection

⁶ Based on percentage of residents in Pokeno SA2 aged 15-64 according to 2018 Census

⁷ Based on average distance to Drury, Pukekohe, and Manukau

⁸ Based on average travel time in peak period to Drury, Pukekohe, and Manukau

Table 5: Estimated Annual Travel Time & Cost for Pokeno-Auckland Commuters

Trip Metrics	Value
Annual Trips	680,000
Travel Distance (km)	29,467,000
Travel Time (hrs)	453,000
Fuel Burned (litres)	2,947,000
Fuel Cost (\$m)	\$5.8m
Travel Time Cost (\$m)	\$4.8m
Total Cost (Fuel + Time) (\$m)	\$10.6m

- 4.25 To summarise: in future, if half of Pokeno’s workforce commuted to Auckland for work, in one year they would collectively travel an estimated 29.5 million kilometres, burn nearly 3 million litres of fuel, and incur \$10.6 million in travel time and fuel costs.
- 4.26 If the population were to swell to a larger size, such as the highly ambitious targets laid out in Waikato 2070, these costs would increase pro-rata.

5. **SUMMARY AND RECOMMENDATIONS**

- 5.1 This evidence has shown that the amount of additional residential and village land proposed for Pokeno in submissions on the PWDP is likely to far exceed short- to medium-term requirements, with additional supply only becoming critical over the longer term.
- 5.2 While it is generally good to provide a generous supply of zoned land to meet future demand, a gross oversupply can pose considerable economic risks and challenges, particularly the costs of providing infrastructure. These issues are elevated in the current context due to a lack of holistic planning, significant uncertainty about the district’s future population trajectory, and the damning impacts of Covid-19 on Local Government finances.
- 5.3 There is also a risk that the various rezoning proposals could lead to a material imbalance between residential and non-residential land, causing excessive commuting to Auckland for work and incurring a range of economic and environmental costs.

- 5.4 Given that the District Plan will be reviewed again in 10 years, and noting that existing capacity is sufficient to meet likely demand over the short term, I recommend that (assuming the Panel determines that it is in principle suitable for development) some of the land identified for rezoning be put into a future urban zone until more work is done to accurately identify future needs, and more detailed plans for the efficient provision of infrastructure have been devised.

Fraser Colegrave
11 March 2021