



Economic analysis of Plan Change 58 in Morrinsville

Report for Warwick and Marion Steffert

6 October 2022

Project team

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1. Introduction and summary

1. Warwick and Marion Steffert are the owners of approximately 14.2 hectares (ha) of Rural-zoned land in Morrinsville, in the Matamata-Piako District. The Stefferts are seeking a private plan change (Plan Change 58 or PC58) for approximately 13.4ha of the land to be rezoned to General Industrial, so as to provide for industrial development. We have been engaged by the Stefferts to analyse industrial land supply and demand in Morrinsville, and the benefits and costs of PC58.
2. In respect of this plan change, we prepared an earlier report, dated 12 October 2021, with a preliminary analysis of supply and demand, which we understand was provided to planning staff at the Matamata-Piako District Council (MPDC).¹ Since preparing our 12 October 2021 report, we have reviewed a report by Market Economics for MPDC, which includes an analysis of the supply and demand for industrial land in Morrinsville.² Market Economics' analysis has been endorsed by the MPDC. Accordingly, in the present report, we set out the Market Economics results on supply and demand, and complement this with some of our own analysis. We also incorporate an analysis of benefits and costs of PC58, which is not something that was included in our 12 October 2021 report (or in the Market Economics report).
3. In summary, our conclusions are as follows:
 - a. In recent years there has been strong growth in both the population of Morrinsville and the number of people employed in businesses utilising industrial land. Since 2013, the population growth rate in Morrinsville has been almost double the rate in the period 1996-2012. Current population levels exceed even the "high scenario" projections made in recent years by forecasters;
 - b. Market Economics' analysis of the demand for, and supply of, Industrial-zoned land in Morrinsville shows that there will be shortfalls in supply occurring in the long-term (2031 to 2054), and even in the medium-term (2021 to 2031) in a scenario where industrial land is assumed to utilise a higher ratio of land use per employee;
 - c. However, Market Economics' supply estimates may be an overstatement. Much of the land Market Economics identified as being undeveloped has already been sold by developers, and therefore may not be available to others seeking to purchase industrial land in Morrinsville;
 - d. Therefore, in an alternative scenario where this sold land is excluded from the supply estimates, there will be shortfalls in Industrial-zoned land in Morrinsville at least in the medium-term, and even as recently as in the short-term (2021-2024) in the high employee ratio scenario;
 - e. On the supply and demand evidence, there is a strong economic case for additional industrial land in Morrinsville, to provide for industrial land demand beyond the next 10 years and to make up a potential shortfall in the near future;
 - f. PC58 will expand the supply of Industrial-zoned land and release this supply constraint, benefiting purchasers of industrial land through lower prices and more choice, and bringing new businesses and employees to Morrinsville. It will also result in more businesses being located in close proximity to each other. This clustering effect can generate productivity benefits, allowing both new and existing businesses to increase their sales, and providing workers with access to more productive and better paid jobs; and

¹ NERA (2021), "Preliminary economic analysis of industrial land supply and demand in Morrinsville", Report for Warwick and Marion Steffert, 12 October.

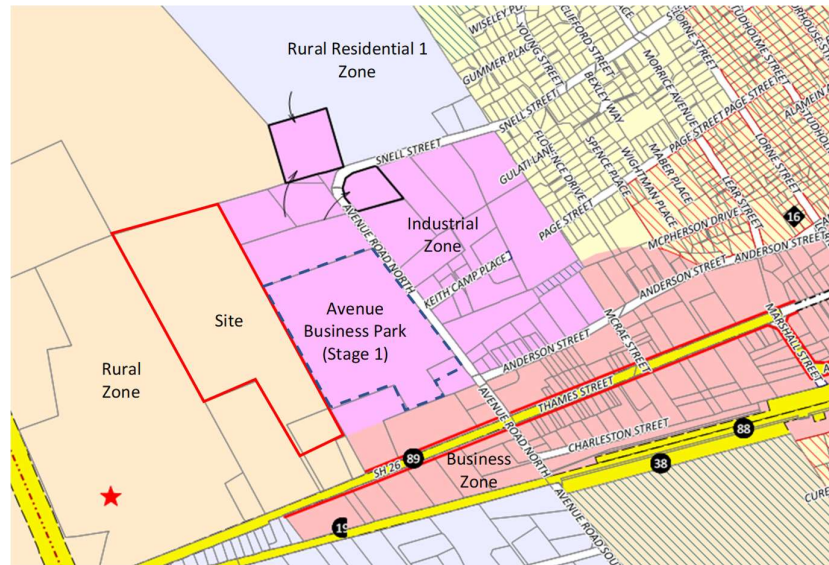
² ME Consulting (2022), "Business Development Capacity and Demand Assessment 2022: Matamata-Piako District", 16 May.

- g. PC58 will allow for the earlier realization of these benefits, compared to a hypothetical alternative block of land in Morrinsville that has yet to be identified and re-zoned as Industrial. The PC58 site also has locational advantages, by being adjacent to existing Industrial-zoned land and within the Morrinsville township. Accordingly, we would expect these benefits to be greater in respect of the PC58 site than an alternative site elsewhere in Morrinsville.
4. The remainder of this report is structured as follows:
- a. In section 2 we outline the relevant background to the proposed rezoning;
 - b. In section 3 we analyse population and employment data for Morrinsville;
 - c. In section 4 we set out the Market Economics supply and demand analysis for industrial land in Morrinsville; and
 - d. In section 5 we analyse the benefits and costs of PC58.

2. Background to the proposed rezoning

5. The proposed rezoning site is an area of approximately 13.4ha, currently Rural-zoned, located within the Morrinsville township – see the red outlined area in Figure 1.

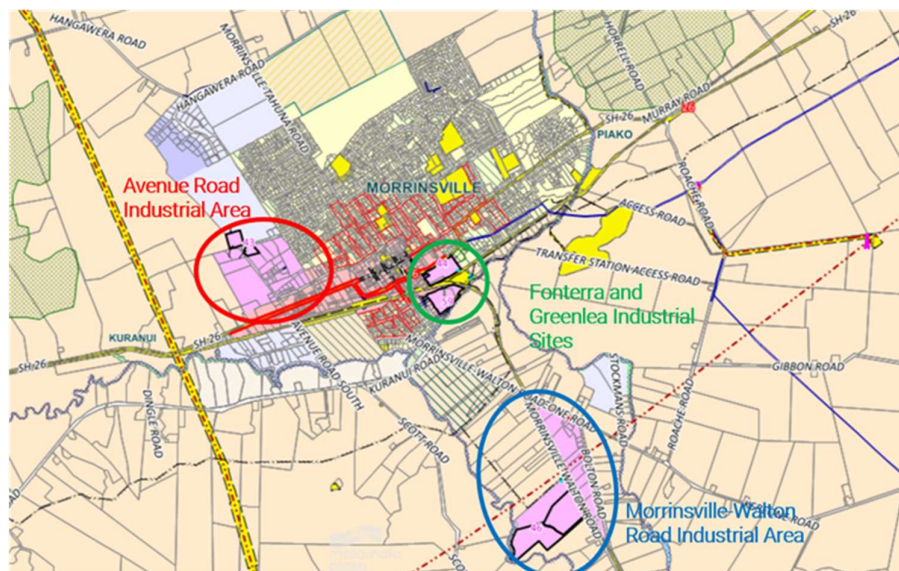
Figure 1: Proposed rezoning site and adjacent Industrial zone



Source: provided by Monocle, base map from Matamata-Piako District Plan

6. Figure 1 shows that the proposed rezoning site is located adjacent to existing Industrial-zoned land in Morrinsville township (including Avenue Business Park (Stage 1), which is an adjacent Industrial-zoned and consented site also owned by the Stefferts). Figure 2 also shows this existing Industrial-zoned land, along with two other Industrial-zoned land areas in or near Morrinsville. In particular, Figure 2 shows the following:
 - a. The red circle is Industrial-zoned land within the Morrinsville township with a total area of approximately 38ha. We refer to this as the “Avenue Rd Industrial Area”;
 - b. The green circle covers two distinct Industrial-zoned areas (totaling approximately 12ha) located within the Morrinsville township, occupied by Fonterra and Greenlea Meats respectively (the “Fonterra and Greenlea Industrial Sites”); and
 - c. The blue circle is a large Industrial-zoned area located south of the Morrinsville township (of approximately 51ha), on Morrinsville-Walton Rd, occupied by various industrial users including Ballance Agri-Nutrients and Evonik Industries (the “Morrinsville-Walton Rd Industrial Area”).

Figure 2: Morrinsville Industrial-zoned land



Source: provided by Monocle, base map from Matamata-Piako District Plan

7. In 2013, the MPDC analysed the demand for, and supply of, industrial land in its District.³ The MPDC estimated demand for 13ha of industrial land in Morrinsville township over the 2013-2033 period, balanced against 13ha of vacant supply within the township. Accordingly, the MPDC found that vacant industrial supply within the Morrinsville township would start to run out by 2033.
8. More recently, the MPDC commissioned Market Economics to undertake a business demand and capacity assessment across the District, which included an analysis of the demand and supply of industrial land in the Morrinsville township and the Morrinsville-Walton Rd industrial area.⁴ We consider this analysis in more detail later in this report, but we note at this stage a key finding of the Market Economics report is that while there may be sufficient industrial capacity in Morrinsville in the short-term (through to 2024), the projections indicate there may be significant shortfalls of industrial land in the medium-term (to 2031) and long-term (to 2054). Market Economics states (p.74, emphasis added):

The assessment has found that Industrial Zone capacity is likely to be a key issue for the district in the medium and long-term...There is likely to be sufficient Industrial Zone capacity within the short-term across the district's two largest urban townships of Morrinsville and Matamata, which could meet demand arising generally within the northern and southern parts of the district.

Under the current capacity scenario, significant shortfalls in capacity are projected to emerge in the medium-term across most locations. The projected shortfalls would worsen into the long-term with the growth in industrial demand.

³ MPDC (2013), "Town Strategies 2013-2033 Land Budgets: Matamata, Morrinsville, Te Aroha", May; and MPDC (2013), "Town Strategies 2013-2033: Matamata, Morrinsville, Te Aroha", October.

⁴ ME Consulting (2022), "Business Development Capacity and Demand Assessment 2022: Matamata-Piako District", 16 May.

3. Morrinsville growth metrics

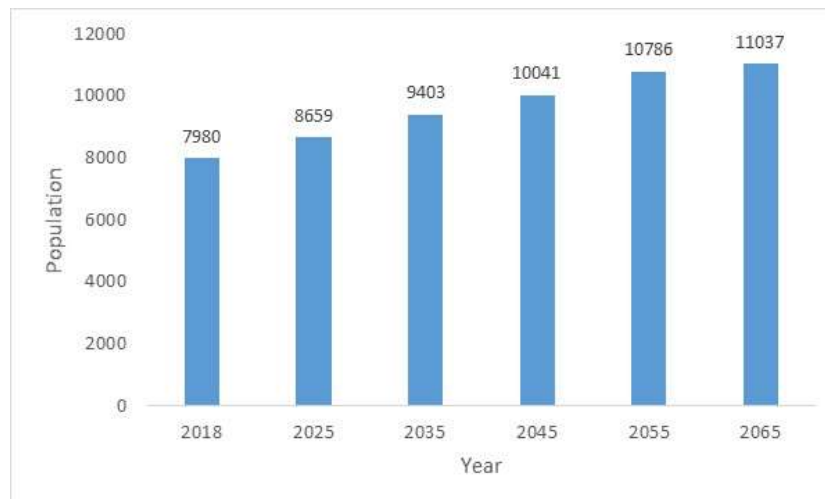
3.1. Introduction

9. In this section we analyse recent growth in population and employment in Morrinsville. Both of these metrics can be useful indicators of the demand for industrial land, because a higher population in an area can imply a greater demand for employment, including in the industrial sector, which in turn can imply a greater demand for industrial land. The intention is to provide background context to the industrial land demand projections that will be analysed later in this report.
10. We assess these metrics at the geographic area level defined by Statistics New Zealand as “Statistical Area 2” (SA2). We analyse two SA2s: Morrinsville East and Morrinsville West, (which we refer to collectively as “Morrinsville” when we analyse data from these SA2s). When combined, the Morrinsville East and Morrinsville West SA2s are broadly comparable to the Morrinsville township.

3.2. Population

11. The MPDC is part of the Future Proof Partnership, which uses population data from the Waikato Integrated Scenario Explorer (WISE), an online simulation tool developed through the Waikato Regional Council’s Creating Futures research project.⁵ The WISE data provides population projections (i.e., forecasts), for three different scenarios: low; medium; and high. Our focus in this report is on the high growth scenario, as this scenario has been adopted by the MPDC for the purpose of its future planning.⁶
12. Figure 3 shows the WISE population projections for Morrinsville through to 2065. These projections start from an assessed population base in 2018, and forecast the population in 2025 and then at ten-year intervals. These projections show that, by 2045, Morrinsville’s population will have increased by more than 2,000 from its 2018 levels, to a population exceeding 10,000.

Figure 3: WISE Morrinsville high growth population projections, 2018-2065



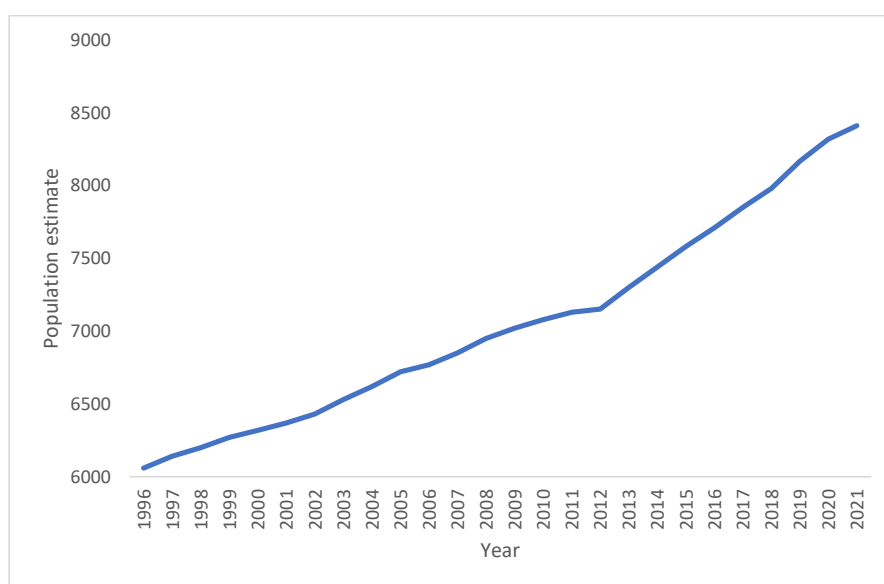
Source: NERA analysis of WISE population projection data, available at <http://creatingfutures.org.nz/>

⁵ See <http://www.creatingfutures.org.nz/>

⁶ See Minutes of MPDC ordinary meeting, 13 July 2022, at p.13, available at: https://meeting-docs.mpdcc.govt.nz/Open/2022/07/C_13072022_MIN.PDF

13. We also analyse population “estimates” prepared by Statistics New Zealand. This data is prepared annually and estimates the historical population in an area, with the most recent estimates for Morrinsville available through to 30 June 2021. Figure 4 shows the estimated population in Morrinsville, from 1996 to 2021. It is noteworthy that:
- There is much stronger growth in Morrinsville’s estimated population in recent years (since around 2013), relative to the earlier period, as indicated by the slope of the line steepening. The average annual growth in population in the period 2013-2021 is 1.8%, which is nearly double the annual growth rate over the earlier 1996-2012 period of 1.0%; and
 - As at 30 June 2021, the population of Morrinsville is estimated at 8,410 people. This compares with the WISE population projection for 2021 of 8,271.⁷ This suggests that the WISE projections set out above (for the high scenario) may be understated.

Figure 4: Statistics New Zealand Morrinsville population estimate, 1996-2021



Source: NERA analysis of Statistics New Zealand population estimate data, extracted from NZ.Stat database

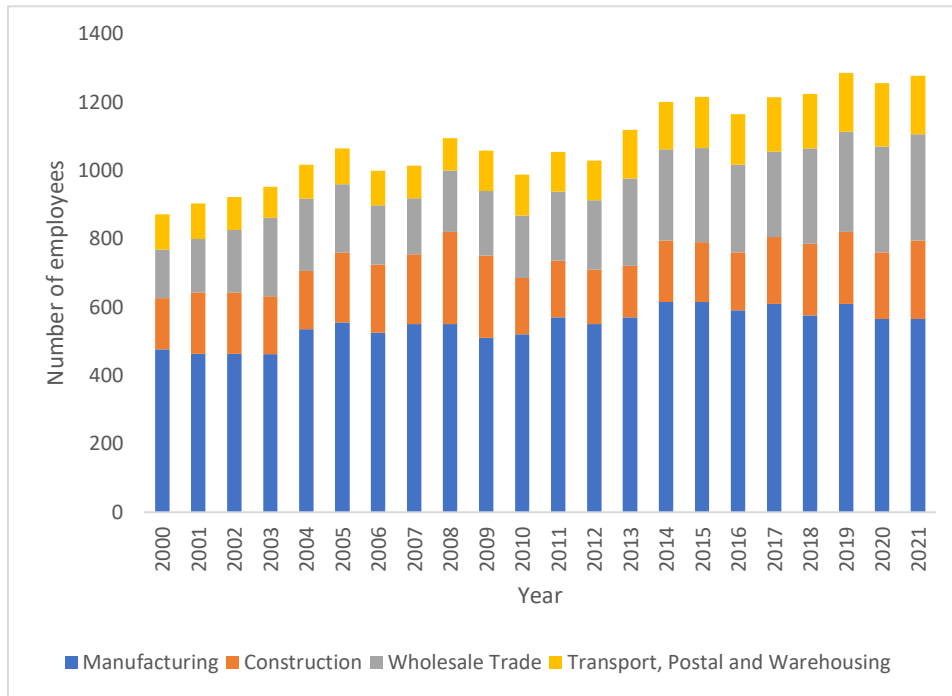
3.3. Employment

14. In Figure 5 we show the number of people employed in Morrinsville, by industry for four selected industries (using the ANZSIC06 industrial classification utilised by Statistics New Zealand in these data) and from 2000 to 2021. The industries selected are: Manufacturing; Construction; Wholesale Trade; and Transport, Postal and Warehousing.⁸ These are industries that may best be classified as occupying industrial land.
15. Across the four industries, there has been growth in employment numbers from 2000 to 2021. In total, there are 406 more employees across these four industries in 2021 than there were in 2000. Split into two periods, there was growth of 116 employees in the period from 2000 to 2010, and 290 employees in the more recent 2010 to 2021 period.

⁷ This calculation assumes that the population increases linearly between the WISE projection dates of 2018 and 2025 shown in Figure 3.

⁸ Another relevant industry is likely to be Electricity, Gas, Water and Waste Services. However, in many years there are only a small number of employees in this industry in Morrinsville (typically around 3), and in other years there is no data available. We have therefore excluded this industry from Figure 5.

Figure 5: Statistics New Zealand Morrinsville employment in selected industries, 2000 to 2021

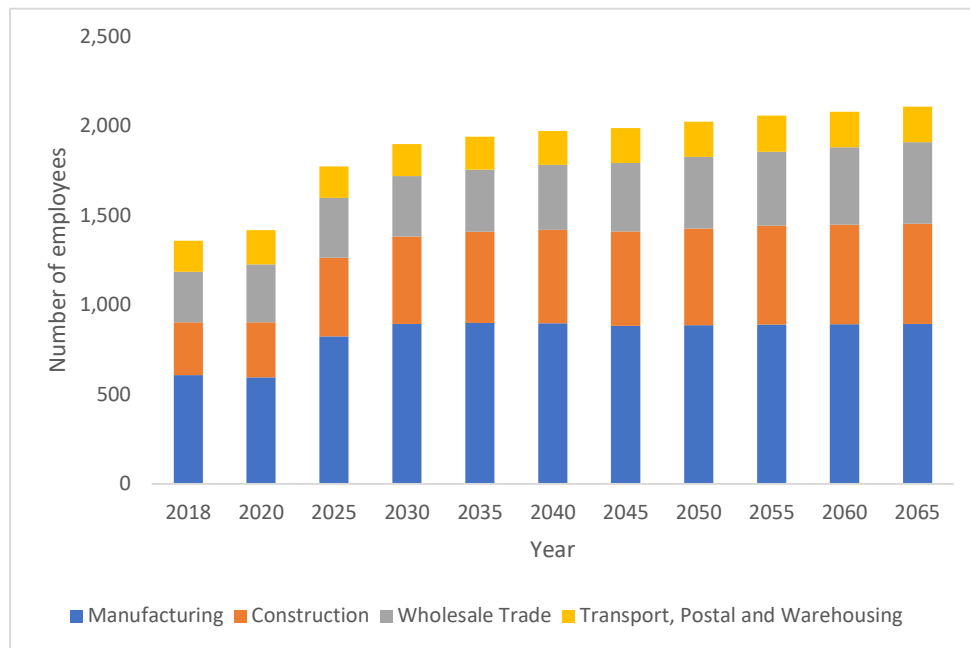


Source: NERA analysis of Statistics New Zealand Business Demography employment data, extracted from NZ.Stat database

16. In Figure 6 below we show the WISE employment projections for Morrinsville, for the same four industries considered in Figure 5, and using the WISE high growth scenario.⁹ This shows strong employment growth across the four industries shown, particular through to 2030. For example, over the 10-year period from 2020 to 2030, the number of employees in these four industries in Morrinsville is projected to grow by 480, or 34%.

⁹ Note that the WISE data uses “modified employee counts”, which is an adjustment of the Statistics New Zealand data to include self-employed proprietors, so the two datasets give slightly different numbers for the same year. See footnote 1 of Market Economics Research (2021), “Waikato Economic Projections: 2021 Update”, 29 April.

Figure 6: WISE Morrinsville high growth employment projections in selected industries, 2018 to 2065



Source: NERA analysis of WISE employment projection data, sourced from <http://www.creatingfutures.org.nz/>

4. Demand for and supply of industrial land in Morrinsville

4.1. Industrial land demand

17. The MPDC recently commissioned Market Economics to undertake a business demand and capacity assessment across the District, which included an analysis of the demand and supply of industrial land in the Morrinsville township and the Morrinsville-Walton Rd Industrial Area.
18. At a high-level, the approach taken by Market Economics to assess the demand for Industrial-zoned land is as follows:
 - a. Using the WISE data, determine projected employment for industries that broadly correspond to Industrial-zoned land;
 - b. Convert the employment projections to land requirements, using two different conversion ratios of 500m² per employee and 800m² per employee; and
 - c. Increase the projected land requirements by applying the competitiveness margins set out in the National Policy Statement on Urban Development (NPS-UD). These margins are 20% in the short-term and medium-term (the next 3 years and 3-10 years respectively) and 15% in the long-term (10-30 years).
19. We have not undertaken a detailed assessment of the quality and rigor of Market Economics' demand calculations. Nonetheless, the high-level approach is a valid methodology for assessing Industrial-zoned demand. It is also consistent with one of the demand assessment approaches set out in our preliminary 12 October 2021 report on PC58 (albeit with some different underlying assumptions).¹⁰ We note also that Market Economics' analysis has been endorsed by the MPDC.¹¹
20. In Table 1 we set out the Market Economics projections for the change in Industrial-zoned land demand in Morrinsville (equivalent to the "with margin" results for Morrinsville in Table 4-4 of the Market Economics report). These are shown for the two conversion ratios used by Market Economics (500m² per employee and 800m² per employee), and for three time periods: the short-term, of 2021 to 2024; the medium-term, of 2021 to 2031; and the long-term, of 2021 to 2054. The Market Economics projections cover Industrial-zoned land in both the Morrinsville township and the Morrinsville-Walton Rd Industrial Area.

Table 1: Market Economics Projected Change in Industrial Land Demand in Morrinsville, with NPS-UD margins

Location	Low ratio (500m ² per employee)			High ratio (800m ² per employee)		
	Short-term: 2021-2024	Medium-term: 2021-2031	Long-term: 2021-2054	Short-term: 2021-2024	Medium-term: 2021-2031	Long-term: 2021-2054
Morrinsville township and Morrinsville-Walton Rd	8.1ha	17.8ha	31.4ha	13.0ha	28.5ha	50.3ha

¹⁰ NERA (2021), "Preliminary economic analysis of industrial land supply and demand in Morrinsville", Report for Warwick and Marion Steffert, 12 October. We understand that this report was provided to MPDC planning staff.

¹¹ See Minutes of MPDC ordinary meeting, 13 July 2022, at p.19, available at: https://meeting-docs.mpd.govt.nz/Open/2022/07/C_13072022_MIN.PDF

4.2. Industrial land supply

21. The analysis undertaken by Market Economics includes an estimate of the vacant/partly vacant or undeveloped Industrial-zoned land in Morrinsville. In summary, Market Economics finds (see Table 5-3 of the Market Economics report):
 - a. 18.3ha of undeveloped or partly vacant land in the Morrinsville township. Included in this is 10.1ha related to the Avenue Business Park (Stage 1) development in the Avenue Rd Industrial Area; and
 - b. 5.2ha of partly vacant land in the Morrinsville-Walton Rd Industrial Area.
22. This gives a total estimate of undeveloped or partly vacant Industrial-zoned land in Morrinsville of 23.5ha.
23. This estimate of industrial land supply by Market Economics may be an overstatement. This is because some of the Industrial-zoned land identified by Market Economics as being undeveloped has already been sold, and therefore may not be available to future purchasers of land.¹² In Figure 7 we show three areas within the Avenue Rd Industrial Area that this applies to:
 - a. The Avenue Business Park (Stage 1) development: some of the lots within this development have already been sold, and therefore will not be available to others seeking to purchase industrial land in Morrinsville. We understand that, at the time of writing, 14 lots (equaling approximately 6.2ha) have currently been sold;
 - b. The Keith Camp Place development: this development covers an area of approximately 2.8ha, with 6 lots ranging in size from approximately 2,700m² to 4,000m². At the time of writing, five of these lots have been sold, with only a 0.3ha lot still available.¹³ Therefore approximately 2.5ha of this land would not be available to those seeking industrial land in Morrinsville; and
 - c. The Bowers Concrete site: we understand that the 2.8ha site owned by Bowers Concrete is currently being developed to allow for an expansion of the Bowers Concrete operations, so would not be available to future purchasers of industrial land.
24. If the sold Avenue Business Park (Stage 1) (6.2ha), Keith Camp Place (2.5ha) and Bowers Concrete (2.8ha) sites are deducted from the total of 23.5ha in the Market Economics report, then the available industrial land supply in Morrinsville would be 12ha.

¹² MPDC may have additional information that can better determine the development status of this land e.g., if there are building consents issued or the land is actively being developed.

¹³ See <https://www.bayleys.co.nz/2311252>, accessed 28 September 2022.

Figure 7: Breakdown of vacant industrial land in Avenue Rd Industrial Area



Source: Google Earth analysis provided by Monocle

4.3. Comparison of industrial land supply and demand

25. In Table 2 below we have taken Market Economics’ supply estimate (of 23.5ha) and deducted its estimate of industrial land demand in Morrinsville, for the different time period and employee ratio scenarios used by Market Economics. The results are equivalent to those shown in Table 6-2 of the Market Economics report. The results illustrate Market Economics’ conclusion, which is that there are shortfalls in industrial land supply occurring in the medium-term and long-term, particularly in the high employee ratio scenario.

Table 2: Morrinsville Industrial Land Supply (Market Economics estimates) less Industrial Land Demand (with NPS-UD margins)

Location	Low ratio (500m ² per employee)			High ratio (800m ² per employee)		
	Short-term: 2021-2024	Medium-term: 2021-2031	Long-term: 2021-2054	Short-term: 2021-2024	Medium-term: 2021-2031	Long-term: 2021-2054
Morrinsville township and Morrinsville-Walton Rd	15.4ha	5.8ha	-7.9ha	10.6ha	-4.9ha	-26.7ha

26. As an alternative scenario, we have calculated the difference between Market Economics’ industrial land demand estimates and the supply estimate above of 12ha, which accounts for some currently undeveloped industrial land that has been sold, so is not available to future purchasers.

The results are shown in Table 3. These results show that there are likely to be industrial land shortfalls at least in the medium-term in the low employee ratio scenario, and even as recently as in the short-term in the high employee ratio scenario.

Table 3: Morrinsville Industrial Land Supply (NERA estimates) less Industrial Land Demand (with NPS-UD margins)

Location	Low ratio (500m ² per employee)			High ratio (800m ² per employee)		
	Short-term: 2021-2024	Medium-term: 2021-2031	Long-term: 2021-2054	Short-term: 2021-2024	Medium-term: 2021-2031	Long-term: 2021-2054
Morrinsville township and Morrinsville-Walton Rd	3.9ha	-5.8ha	-19.4ha	-1.0ha	-16.5ha	-38.3ha

27. In summary, the analysis set out in the Market Economics report shows that there is likely to be a shortfall in industrial land in Morrinsville in the medium-term and long-term. Based on our alternative analysis to reflect reduced supply of undeveloped land, this shortfall may be even more imminent than expected by Market Economics. In particular, there is the potential for demand to exceed supply in the short-term (through to 2024) in the high employee ratio scenario.

5. Benefits and costs of the proposed plan change

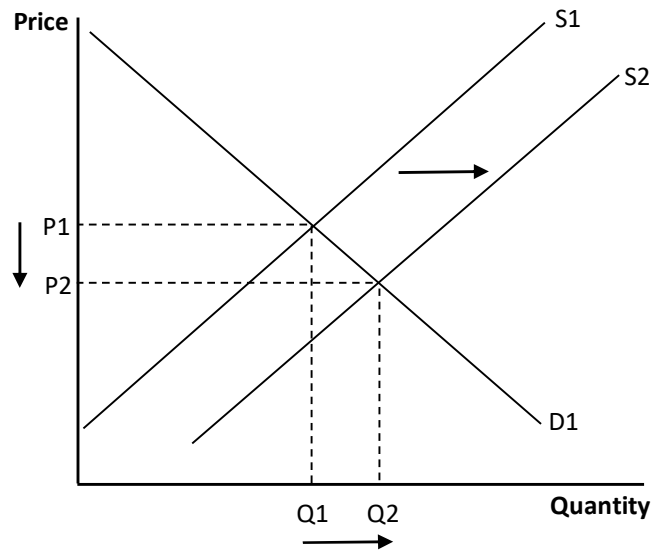
5.1. Introduction

28. In this section we set out a qualitative discussion of the benefits and costs of PC58.
29. There are two ways to assess the benefits and costs in this particular case. One is to consider the benefits and costs of an expansion in Industrial-zoned land in Morrinsville *in general*. That is, the benefits and costs, relative to an alternative scenario where there is no such expansion in industrial land. The second approach is to consider the benefits and costs of PC58 *in particular*. That is, the benefits/costs of the Stefferts' proposed expansion of Industrial-zoned land, relative to a hypothetical alternative expansion in another Morrinsville location, and presumably also at a later time (given the time lag that would be required to implement a plan change).
30. In our analysis below we start by assessing the benefits and costs of an increase in the supply of Industrial-zoned land in general. We then assess, in respect of each benefit and cost, the extent to which these apply to the particular case of PC58. This allows for an assessment of whether PC58 is beneficial, compared to rezoning an equivalent block of land elsewhere in Morrinsville at a later date.
31. In summary, the benefits and costs that we assess are as follows:
- An expansion in Industrial-zoned land will release the supply constraint, offering lower prices and more choice, thereby bringing new businesses and employees to Morrinsville;
 - There are productivity benefits that can arise when more businesses locate in close proximity to each other. This will allow both new and existing businesses to increase their sales, and provide workers with access to more productive and better paid jobs; and
 - There will be some infrastructure costs, but these are incurred by developers and it is reasonable to assume that the benefits that developers receive will exceed these costs. There will also be a cost associated with the loss of the productive capacity of the land.
32. We elaborate on these benefits and costs in more detail in the following sections.

5.2. Benefit of lower prices and more choice

33. An important benefit of an expansion in industrial land arises on the demand-side i.e., to purchasers of Industrial-zoned land in Morrinsville. An increase in the supply of Industrial-zoned land will benefit those purchasers by lowering prices and providing them with more choice. This follows from the standard economic framework of supply and demand, shown in Figure 8, with an upward sloping supply curve ("S1") representing the supply of industrial land, and a downward sloping demand curve ("D1") representing the demand for industrial land. The market price ("P1") and quantity ("Q1") are given by the point at which these supply and demand curves intersect. An expansion of industrial land would lead to an increase in the supply of land – that is, an outwards shift of the supply curve, leading to the new supply curve "S2". With this additional supply in the market, the market adjusts so that prices fall to P2, and market quantity increases to Q2. The lower prices and increased quantity provide a benefit to the demand-side.

Figure 8: Supply and demand framework for assessment of supply increase



34. The increase in supply from re-zoning more Industrial land can be thought of as releasing a binding supply constraint. The evidence outlined in the previous section shows that the future demand for Industrial-zoned land in Morrinsville is likely to be greater than the supply in certain scenarios and over certain time periods. If the supply of Industrial-zoned land were to remain unchanged at its current level, then continued increases in demand would result in continued price increases for the existing Industrial-zoned land.
35. However, by expanding the supply of Industrial-zoned land, this constraint can be released, allowing for industrial land demand to be met at lower prices. This in turn brings new businesses to Morrinsville, along with new employees and/or enhanced employment opportunities for existing employees.
36. By expanding supply, this benefit facilitates the operation of a competitive land market, which is consistent with the NPS-UD. In particular, Policy 1(d) of the NPS-UD is as follows:

***Policy 1:** Planning decisions contribute to well-functioning urban environments, which are urban environments that, as a minimum:*

...

(d) support, and limit as much as possible adverse impacts on, the competitive operation of land and development markets.

37. The benefit of lower prices and increased choice to purchasers would be achieved regardless of whether the new Industrial-zoned land is that provided by PC58, or whether it is an equivalent block of land elsewhere in Morrinsville. That is, it is the supply increase in Morrinsville *per se* that provides for these benefits, rather than the specific location of the supply increase. Nonetheless, the advantage that PC58 has over other potential Industrial-zoned land in Morrinsville is one of timing.
38. In particular, PC58 will allow for the earlier realization of this benefit, compared to an alternative block of land. That alternative would need to go through the process of being identified and re-zoned as Industrial, which would be a time-consuming process. In contrast, PC58 has already

begun this process, which will allow for the benefits to be realized earlier than they otherwise would be.

39. The earlier realization of this benefit is particularly important in a situation where there is a binding supply constraint. If there was a substantial lag between when new Industrial-zoned land can be made available and when the supply constraint binds, then the increasing demand for Industrial-zoned land will push up land prices to those buyers that would have otherwise wanted to purchase Industrial-zoned land in Morrinsville. This situation can be avoided with PC58, as it contributes to the release of this constraint sooner rather than later.

5.3. Proximity/clustering benefits

40. A common benefit that is often analysed in cost-benefit assessments is the benefit that arises from the clustering of economic activity. When people and businesses locate in close proximity to each other, it can generate benefits from increased productivity. These benefits arise because the clustering of activity strengthens links between businesses, providing for increased specialization, better matching of skills between employers and employees, and enhanced knowledge spillovers.¹⁴
41. A general increase in the supply of Industrial-zoned land in Morrinsville would provide for new industrial businesses to enter the area, allowing for a greater clustering of such businesses, which can result in productivity benefits. The benefits that arise from this clustering fall into two categories:
 - a. Benefits arising from the general proximity of industrial businesses to the wider population and other (non-industrial) businesses of Morrinsville. Economists refer to such benefits as “urbanisation economies”; and
 - b. Benefits arising from the proximity of industrial businesses to businesses in the same, or similar, industries. These are referred to as “localisation economies”.
42. New and existing businesses within Morrinsville will benefit from the increased productivity that arises from these clustering effects, because it allows them to deliver the same level of sales output using fewer inputs, or greater sales output for the same inputs. Increased productivity is also beneficial to employees within Morrinsville, as they are able to access more productive and better paid jobs.
43. While these benefits would arise for a general increase in Industrial-zoned land in Morrinsville, we would expect them to be greater in respect of PC58 in particular. This is because the PC58 site:
 - a. Is directly adjacent to the approximately 38ha of the existing Industrial-zoned land in Morrinsville (the Avenue Rd Industrial Area). The localisation economies are therefore likely to be greater in this area, compared to if new Industrial land was zoned somewhere else Morrinsville that is further away from the existing cluster; and
 - b. Is located within the Morrinsville township, which will lead to greater urbanisation economies compared to if new Industrial land was zoned in the Morrinsville-Walton Rd Industrial Area outside of the Morrinsville township.

5.4. Infrastructure and other costs

44. A new industrial land development in Morrinsville (whether PC58 or an alternative development) will involve some costs related to the provision of infrastructure e.g., water and wastewater, electricity, roading, etc. The infrastructure costs that relate to the development site itself will be

¹⁴ See G. Duranton and D. Puga (2004), “Micro-foundations of urban agglomeration economies”, in J.V. Henderson and J-F. Thisse (eds.), *Handbook of regional and urban economics*, Vol 4, Elsevier.

incurred by the developer. Given that a developer is willing to invest to undertake a development, it is reasonable to assume that the benefits that developers receive will exceed these costs, so that there is an overall net (private) benefit. This follows from a common principle in economics that individuals and businesses will make decisions that are in their own best interests. That is, in making a choice, an economic agent will choose a course of action that makes them better off, rather than worse off.

45. There may also be circumstances in which an industrial land development in Morrinsville requires an expansion of the infrastructure capacity not on the development site. However, in these instances the local authority can levy development contributions on the developer to reflect the costs of new or upgraded infrastructure. Again, because these contributions are borne privately by the developer, we can assume that there is no net cost arising from any required infrastructure expansion, given a developer's willingness to undertake the development.
46. In addition, it may be that PC58 is better able to utilize the existing (off-site) infrastructure relative to an alternative site elsewhere in Morrinsville. This is likely to be the case if an alternative site is located further away from existing zoned land or the Morrinsville town centre, so requires additional off-site infrastructure connections. In contrast, due to its locational advantages adjacent to existing Industrial-zoned land, the PC58 site would require (relatively) less in the way of new/upgraded off-site infrastructure.
47. To the extent that PC58 does involve better utilizing existing infrastructure relative to an alternative site, this is a benefit of PC58. The benefit arises because the PC58 site would avoid the costs that might be incurred at an alternative site. As above, these costs are private costs that are incurred by the developer. Nonetheless, if the Stefferts' costs are lower than those of a developer at an alternative site, then we might expect these lower costs to be passed-through to lower prices for new purchasers seeking to buy Industrial-zoned land.
48. Lastly, there will also be a cost associated with the loss of the productive capacity of the land by converting the PC58 site from Rural-zoned to General Industrial-zoned. I understand this cost has been assessed in more detail in the versatile soils assessment prepared in respect of PC58, and that a key finding is that the productive capacity of the land in a rural use is restricted. On this basis, the cost of the lost productive capacity of the land is unlikely to be material.

5.5. Summary of benefits and costs

49. In summary, the benefits and costs are as follows:
 - a. In general, an expansion in Industrial-zoned land will release the supply constraint, which will benefit purchasers of Industrial-zoned land in Morrinsville through lower prices and more choice, and bring new businesses and employees to Morrinsville. For PC58 in particular, this benefit will be realized earlier relative to an alternative block of land which is yet to go through the process of being identified and re-zoned as Industrial;
 - b. For a general expansion in Industrial-zoned land, there are productivity benefits that can arise when more businesses locate in close proximity to each other. This will allow both new and existing businesses to increase their sales, and provide workers with access to more productive and better paid jobs. For PC58 in particular, these benefits are likely to be greater due to the locational advantages relative to other possible sites in Morrinsville, with the PC58 site adjacent to existing Industrial-zoned land and within the Morrinsville township;
 - c. For both a general expansion in Industrial-zoned land and PC58 in particular, there will be some infrastructure costs. However, these are incurred by developers and it is reasonable to assume that the benefits that developers receive will exceed these costs, so there is no net cost associated with infrastructure;

- d. For PC58 in particular, there will be a benefit if PC58 can better utilize existing infrastructure relative to an alternative site, allowing lower costs to be passed through to lower prices for new purchasers seeking to buy Industrial-zoned land; and
- e. For PC58 in particular, there will be a cost associated with the loss of the productive capacity of the land, although this cost is unlikely to be material.

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