Residential Capacity Modelling

Medium Density Residential Standards and Qualifying Matters: Waikato District

12 June 2023 – final

m.e consulting

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1 Introduction

Tier 1 territorial authorities are required to incorporate Medium Density Residential Standards (MDRS) into their district plans under the Resource Management (Enabling Housing Supply and Other Matters) Amendment Act 2021 (Amendment Act), which generally increases the level of development that is provided for within urban areas. Waikato District Council (WDC) has proposed a plan change (Variation 3) to implement the MDRS. M.E have undertaken modelling to calculate the amount of residential dwelling capacity that is enabled within Waikato District's urban areas with the application of the MDRS and inform the proposed plan change. Further modelling has also been undertaken to understand various proposed intensification options as a result of qualifying matters and the submissions that have been lodged.

The MDRS enables a higher level of residential development capacity in Ngaaruawaahia, Huntly, Pookeno and Tuakau. It increases the potential yield on each property by enabling up to three dwellings on each site within a relevant residential zone in these locations. It also increases the level of development opportunity on each site through expanding the three-dimensional development envelope[1] within which dwellings can be constructed. In combination, these provisions enable a shift in development patterns from those previously occurring across the district under the existing and past planning provisions. It is important to understand the level of residential capacity provided with the implementation of the MDRS.

M.E has been commissioned by the Future Proof Partnership[2] (FPP) to undertake further residential capacity modelling across the urban residential zones in Hamilton City and the Waikato and Waipā districts to understand the level of capacity enabled by the MDRS. The additional modelling builds off the existing residential capacity modelling undertaken in 2021 for the FPP to meet the requirements of the National Policy Statement on Urban Development (NPS-UD).

This report contains the second stage of the further MDRS modelling undertaken in the former part of 2022[3]. In addition to the unmodified MDRS modelling, it contains an existing baseline modelled capacity and models the effect of the Waikato District Council (WDC) Proposed Variation 3 qualifying matters on the unmodified MDRS enabled capacity. It also contains further modelling of intensification scenarios proposed in submissions, in particular, from Kāinga Ora.

The unmodified MDRS modelling within this report has been updated from the 6 July 2022 report with the provision of further planning information. Further updates have also taken place from the modelling presented during the strategic hearing to reflect updated planning information supplied by WDC. All modelled scenarios now also include projected commercially feasible capacity across the short, medium

[1] This occurs through a combination of the maximum height allowances (up to three storeys), building setbacks and height to boundary building recession planes.

[2] The FPP is formed by Waikato District, Hamilton City, Waipā District, and more recently, the main urban centres of Matamata-Piako District.

[3] M.E, 2022. *Residential Capacity Modelling: Medium Density Residential Standards: Waikato District,* prepared for Waikato District Council, 7 July 2022.

and long-term. Understanding the likely market growth within these scenarios is important within the context of the introduction of provisions for dwelling typologies that are substantially different to past patterns of development and not yet well established within the local market. Technical information on the additional further modelling contained within this report is set out in Section 4.

Understanding the capacity enabled by the MDRS is an important first stage in understanding the implications of the MDRS. It is likely that development will get taken up through time at a range of densities, including up to that of the MDRS in some locations. However, much of the development capacity delivered by the market is still likely to occur at lower densities, particularly within the short-term, as demand increases through time for higher density dwelling options.

The report briefly sets out the approach undertaken to model the MDRS provisions and presents the district's urban capacity calculations. It is not intended to be a detailed technical report on the model specifications, beyond outlining the key changes and extensions to the Waikato Residential Capacity Model used to model the MDRS. Further technical information on the structure of the Waikato Residential Capacity Model is instead contained within the FPPs Housing Development Capacity Assessment[4] (HBA) and associated technical documentation.

The report is structured as follows. Section 2 describes the intensification provisions of the MDRS and Variation 3. It summarises the changes in modelled development patterns with the application of the MDRS and how these apply to Variation 3 and then outlines the qualifying matters that have been modelled to modify the intensification provisions. The modelled scenarios are set out in Section 3. The modelling approach is then described in Section 4. The focus of Section 4 is on the key stages and development of the modelling approach to reflect the MDRS from the residential capacity modelling undertaken for the HBA in 2021. The summary results from the modelling are contained in Section 5, and concluding comment in Section 6.

[4] M.E, 2021. *NPS-UD Housing Development Capacity Assessment: Future Proof Partners,* prepared for Future Proof Partners (Hamilton City Council, Waikato District Council and Waipā District Council), 30 July 2021.

2 Intensification Provisions: MDRS and Variation 3

The development patterns enabled under the MDRS and contained within the Proposed District Plan (PDP) Decisions Version and Variation 3 are substantially different to those that are currently provided for across much of the district's urban area within the Operative Waikato District Plan (ODP). If taken up, they would represent a significant step-change in density to past development patterns that have occurred across much of the district's urban areas.

2.1 Changes in Modelled Development Patterns

The district's urban areas have previously predominantly been characterised by lower density development patterns in the form of single detached dwellings on full sites. These have generally occurred up to the densities enabled under the ODP, where much of the urban general residential suburban areas have had minimum site size requirements ranging from 450 m2 to 875 m2[5]. The minimum site size requirements, together with patterns of demand, mean that the development market has generally favoured single level, detached dwellings. Some of the development has occurred at densities lower than the planning minimums. A significant portion of growth in the northern parts of the district is likely to have been driven by proximity to the larger Auckland market where households have sought detached dwellings on full sites as either a cheaper or larger alternative to the available opportunities within the Auckland market.

More recently, there has been some development at higher densities within structure plan areas, with the key area in Lakeside, Te Kauwhata. These have resulted in a number of medium density dwellings, including some two-level attached dwellings and two-level detached dwellings on much smaller sites.

The PDP Decisions Version zoning structure introduces significantly higher densities within many of the district's main urban towns. This occurs through the Medium Density Residential (MR) Zone (which enables medium-density development), which is applied across the central parts of Pookeno, Tuakau, Te Kauwhata, Huntly, Ngaaruawaahia and Raglan. The approximate 800m distance application of this zone from the edge of the commercial areas means that it covers sizeable proportions of the residential areas within these towns.

The MDRS proposed by the Amendment Act generally provides for a substantially higher level of development capacity across the district's urban residential areas of Pookeno, Tuakau, Huntly and Ngaaruawaahia. These are set out in Schedule 3A Part 2 of the Resource Management Act (RMA). It enables up to three dwellings to be constructed on each site that are up to three storeys high. These are also able to be constructed within an expanded three-dimensional building envelope through the combination of

[5] The larger site sizes of 875m2 occur within the Te Kauwhata urban area within the Te Kauwhata West and Ecological Residential Area Living Zone. Other urbanised areas within the reticulated water networks have minimum site sizes of 450m2.

greater allowances in height limits, required setbacks from boundaries and height to boundary recession planes.

The PDP Decisions Version Medium Density Zone provisions already enable the level of capacity that would be permitted with the application of the MDRS to this zone albeit with some changes[6]. However, the application of the MDRS to the remainder of the general suburban areas (within the urban areas of the four towns where MDRS is applied) beyond the MR Zone would enable substantially higher density development and dwelling typologies across these areas. This increases the total residential capacity within the district's urban areas.

If the MDRS provisions are applied to the existing underlying zoning structure, then they would produce a range of medium to higher density dwelling typologies. These range from smaller two-level detached dwellings on smaller sites, up to two to three-level attached dwellings on the smallest land areas (per dwelling) enabled by the standards. At the highest end of the modelled densities, the modelling has assumed that these would reflect horizontally attached 2-3 level walk-up terraced housing or low-rise three-storey apartments. The modelling assumptions around minimum site areas are outlined in Section 4.4.

2.2 Variation 3 and MDRS

WDC-led Variation 3 applies the MDRS across the residential zones of Pookeno, Tuakau, Huntly and Ngaaruawaahia, together with the application of qualifying matters. The spatial extent of the intensification provisions was mainly determined through the MDRS guidance on relevant residential zones within mainly urban areas with a 2018 Census recorded population of at least 5,000 residents[7].

The assessment models the effects of the MDRS across all of the existing urban areas as well as the relevant greenfield areas within these four main urban areas of the district. The included greenfield areas are defined by the live residential zoned areas, as well as the Future Urban Zone greenfield areas. The modelled scenarios of MDRS application are set out in Section 3 below.

Variation 3 adjusts the PDP Decisions Version zoning structure through the extent and provisions within the MR Zone. It differentiates the MR Zone into MR2 Zone, which is applied across the towns where MDRS is applied (Pookeno, Tuakau, Huntly and Ngaaruawaahia), and MR1 Zone which is applied across the remainder of the PDP Decisions Version MR Zone. The MR2 Zone has a slightly higher permitted level of development through a higher permitted site coverage (50%), than the MR1 Zone (45%). There is also a slight expansion to the MR2 zoned area across the four main towns where MDRS is applied to which includes an additional, approximate, 450 properties[8] to extend the zone up to 800m from the edge of the Commercial Zone.

[6] The capacity enabled within the zone is similar from a modelling perspective.

[7] While Pookeno did not have a recorded population of at least 5,000 residentials as at the 2018 Census, WDC have applied MDRS in this location as they consider that it falls within the definition of an urban environment.

[8] Nearly three quarters of these properties are within Tuakau and account for approximately two-thirds of the total area of the MR2 expansion.

Variation 3 modifies the MDRS through qualifying matters that apply within these urban areas. These are set out in the following sub-section.

2.3 Qualifying Matters

The Amendment Act enables the incorporation of MDRS into residential zones to be modified to the extent necessary to accommodate a qualifying matter.

Qualifying matters relate to certain aspects and characteristics of a property in a location that mean it is inappropriate to enable the additional level of residential development enabled by the intensification provisions. These are set out in Subpart 6 of the NPS-UD and section 77I of the Act.

Qualifying matters have been considered by WDC as part of the evaluation process. These are set out in the Section 32 report for Variation 3. Only a sub-set of these are likely to affect plan enabled capacity, with the effect of some are limited to the commercial feasibility of capacity. This occurs where the qualifying matter affects the cost of construction (e.g. costs from an engineering report requirement) without affecting the permitted capacity.

The first stage of the evaluation process identifies whether or not each qualifying matter is likely to have an effect on plan enabled capacity. Those likely to affect capacity are then incorporated within the capacity modelling process. They were applied within the residential capacity assessment using a combination of the Variation 3 Maps and GIS files supplied by WDC.

The modelling approach is to apply the qualifying matters within the capacity model as a separate scenario that modifies the application of the proposed MDRS intensification provisions.

Urban Fringe Qualifying Matter

At the time of initial modelling, WDC had identified the Urban Fringe as the only qualifying matter (notified under Variation 3) to be applied that affected plan enabled capacity within the modified scenario (Scenario 3). Other matters where development would be inappropriate relate to physical site constraints where development is not possible to occur under any scenario.

The Urban Fringe qualifying matter was identified in the strategic hearing as a qualifying matter that the Council was no longer pursuing. However, it is still modelled as a scenario within this report to show the effect given its original notification under Variation 3.

The Urban Fringe qualifying matter restricts the application of the MDRS in residential areas that are beyond 800m walkable distance from the edge of the commercial centres in the urban towns where MDRS is applied. The application of the Urban Fringe qualifying matter corresponds to the spatial extent of the General Residential (GR) Zone in these towns. These areas instead have the existing density of the General Residential Zone applied at one dwelling per 450m2 land area[9].

[9] It is noted that there is the potential for a minor residential to occur on sites with a minimum area of 600m2. These must be ancillary to, and held within common ownership with, the principal residential unit. As such, these have not been included within the assessment as they are less likely to meet demand in the same way as independently-held dwellings, with their inclusion likely to overstate the level of capacity. The modelling is therefore conservative in relation to this aspect.

Other Qualifying Matters

WDC are currently (as at June 2023) in the process of identifying other qualifying matters that may be appropriate to apply. The effect of these qualifying matters on capacity will be modelled once they have been identified and will be addressed during the substantive hearing evidence process.

2.4 Other Matters Affecting Development

The modelling approach also considered other matters that are likely to affect development under all scenarios. These predominantly relate to physical constraints with the land that would limit development potential. The modelling has removed these areas from capacity, meaning that the assessment remains conservative and does not overstate the potential for development within these areas.

The areas removed from development capacity (from the urban residential zone component[10]) under all scenarios include:

- Setbacks from natural character features.
- Outstanding natural features and landscapes.
- Areas of significant indigenous vegetation and habitats.
- Setbacks from waterbodies, including for Te Ture Whaimana.
- Sites of significance for Māori.
- Historic heritage sites.
- Natural hazard areas (high flood risk and setbacks from defended areas).
- Setbacks from national grids and other main infrastructure.
- Setbacks from areas of reverse sensitivity.
- Setbacks from notable trees.
- Exclusion of individual sites with other known constraints.

[10] In some cases, these features did not contain any areas of urban residential zoning and therefore did not affect capacity.

3 Modelled Scenarios

There are five modelled scenarios to test the effect of the intensification provisions and application of qualifying matters on residential capacity, as well as the capacity within alternative proposed options. These underpin the modelling approach and structure of the assessment of effects on capacity.

The modelled scenarios are described below. The first modelled scenario (1) is the existing PDP Decisions Version capacity and provides the baseline from which to measure changes in residential capacity as a result of the proposed provisions. The second scenario (2) is the full, unrestricted application of the MDRS intensification provisions to the PDP Decisions Version zone structure. It provides the baseline from which to measure the effects of qualifying matters on capacity in the third and fourth scenarios (3 and 3a). The final modelled scenario (3b) is that proposed within the Kāinga Ora submission.

Scenario 1: Baseline PDP Decisions Version Planning Provisions

Scenario 1 is the capacity modelled on the PDP Decisions Version provisions. The MDRS have not been applied within this scenario. However, it is noted that the MR Zone provisions within the PDP Decisions Version are consistent with those that would otherwise be applied within the MDRS.

The use of the PDP Decisions Version baseline zoning structure differs to the 2021 HBA modelling, where the ODP was modelled in the short-term (measuring current capacity) and an earlier version of the PDP (as at the time of the assessment) modelled for the medium-term. A full comparison of the differences between the PDPs (2021 draft version and 2022 Decisions Version) can be undertaken through the Waikato District Council website. A key difference is the more widespread application of the MR Zone within the Decisions Version. WDC has also supplied further information on structure plan and development agreement yields within selected greenfield areas, which have been applied in this assessment.

Scenario 2: Unmodified Intensification Provisions

Scenario 2 is the capacity modelled with the full extent, without modification, of the MDRS intensification provisions. This scenario is modelled with the MDRS applied to the PDP Decisions Version base zone structure.

Under this scenario, the density modelled within the MR Zone is the same as that within Scenario 1 as the proposed MR Zone provisions are already consistent with the MDRS. The key difference is that the density increases across the GR Zone to enable a maximum density[11] of up to three dwellings on each 450m2 site within the towns where MDRS is applied.

[11] This is the maximum density that the model is able to apply within the GR Zone. As it uses the existing property boundary spatial structure within existing urban areas, sites between 450m2 and 900m2 are likely to be formed within these areas (with up to three dwellings on each site). For example, an existing property of 600m2 is not large enough to form two sites at 450m2, meaning that the model will allocate up to three dwellings on the existing 600m2 site.

Scenario 3: Modified Intensification Provisions – Variation 3 as Notified (incl. Urban Fringe Qualifying Matter)

Scenario 3 models the capacity under Variation 3 as notified. It includes the application of the Urban Fringe qualifying matter, where the GR Zone density remains at one dwelling per 450m2 site. This scenario tests the effect of the Urban Fringe qualifying matter on capacity.

This scenario applies the Variation 3 base zone structure. This differs slightly to that of the PDP Decisions Version where it includes the small extension of the MR Zone across the four main towns where MDRS is applied. It also bifurcates the MR Zone into the MR1 and MR2 zones.

The structure of the zone provisions within this scenario means that the capacity is similar to that contained within Scenario 1, where the difference relates to the small extension of the MR Zone.

Scenario 3a: Modified Intensification Provisions – Variation 3 as Notified (excl. Urban Fringe Qualifying Matter)

Scenario 3a models the capacity enabled under Variation 3 but without the Urban Fringe qualifying matter applied. It applies the Variation 3 base zoning structure and then, in the absence of other qualifying matters, applies the MDRS across both the MR and GR Zones within the four towns where MDRS is applied.

The capacity modelled under this scenario is very similar to that of Scenario 2 (unmodified intensification through the application of the MDRS to the PDP Decisions Version zones). The difference in capacity to Scenario 2 occurs as a result of the slight extension to the MR2 Zone (compared to MR zone proposed in the PDP decision version) in the four main urban towns where MDRS is applied.

Scenario 3b: Kāinga Ora Proposed Scenario

Scenario 3b models the capacity that would be enabled under the intensification scenario proposed within the Kāinga Ora submission[12].

The Kāinga Ora submission seeks a substantially greater level of intensification than that enabled within both Scenarios 2 and 3a. It introduces higher density residential development provisions in a number of locations as well as increases the spatial extent and intensity of medium density provisions.

The key aspects of the Kāinga Ora submission that are most relevant to the capacity modelling include:

- The Height Variation overlay applied in the Huntly and Ngaaruawaahia commercial zones. This includes areas with an increased height allowance up to 24.5m (6 storeys). A modelling assumption of four storeys allocated to residential uses has been applied in this capacity assessment.
- Application of High Density Residential (HDR) Zone within parts of Huntly and Ngaaruawaahia residential areas. This includes a height allowance of up to 22m (6 storeys).
- Expansion of the MR2 Zone to cover the extent of the GR Zone within the four urban towns where MDRS is applied. This aspect increases the capacity within the general suburban area substantially beyond that of Scenario 2 as a result of the differences in the underlying site sizes between the GR and MR1 zones. The modelled density within these outer suburban areas increases from up to three dwellings per 450m2 (Scenario 2) to up to three dwellings per 200m2 (Scenario 3b).

[12] Submission number 106.

- A number of localised areas of site-specific zoning extensions. These have been included within the modelling and are outlined within the Kāinga Ora submission. The most significant of these includes an extension of the urban residential zoned area within Tuakau, to rezone a Large Lot Residential area of approximately 45ha to MR2 Zone.

4 Modelling Approach

This section outlines the modelling approach that has been undertaken to model the capacity enabled by the MDRS within the Waikato District's urban areas. It identifies the key changes and extensions that have been constructed within the 2022/2023 Waikato Residential Capacity Model to reflect the provisions of the MDRS.

The estimation of capacity has been undertaken at the individual site level, extending upon the M.E Residential Capacity Model developed for the 2021 HBA. It is an estimation of the net additional dwellings that can be accommodated on each property.

The modelling firstly calculates the capacity enabled under each set of planning provisions (plan enabled capacity), and then estimates the share of capacity that is likely to potentially represent commercially feasible development options for profit-driven commercial developers if it were available to the market. A portion of this capacity, in line with the level of projected demand, is then likely to get taken up as growth[13].

This section sets out the key changes and extensions developed for the 2021 HBA capacity model to reflect the MDRS provisions. It is not intended to be a technical document describing the Model in its entirety, which can instead be found within the 2021 HBA and associated documentation.

An outline of the approach, noting the key changes/extensions is set out in the sub-sections below.

4.1 Capacity Structure

Zoning Structure

Modelling has been undertaken across all urban residential zones within the district's urban areas. These include zones that are developed at an urban density and exclude residential development in other zones that are developed at lower densities (e.g. rural and lifestyle dwellings).

As requested by Waikato District Council (WDC), the Proposed District Plan Decisions Version (PDP) and Variation 3 have been applied as the underlying base zoning files for the modelling. This differs to the 2021 HBA modelling, where the ODP was modelled in the short-term (measuring current capacity) and an earlier version of the PDP (as at the time of the assessment) modelled for the medium-term. A full comparison of the differences between the PDPs (2021 draft version and 2022 Decisions Version) can be undertaken through the Waikato District Council website. A key difference is the more widespread application of the Medium Density Residential Zone within the Decisions Version. WDC has also supplied further information on structure plan and development agreement yields within selected greenfield areas, which have been applied in this assessment.

[13] It is important not to confuse commercially feasible capacity with growth. Commercially feasible capacity shows the range of opportunities that are likely to represent feasible development options for developers if they were available to the market. Only a portion of these are likely to be available and taken up by the market, which is likely to be more in line with the level of demand within the district.

The following urban residential zones have been included within the capacity assessment:

- General Residential Zone
    - Te Kauwhata Ecological Residential Area (sub-zone)
    - Lakeside zones (sub-zones)
    - All other areas
- Medium Density Residential Zone
    - Divided into MR1 and MR2 by location under Scenarios 3, 3a and 3b. MR2 has been applied to Pookeno, Tuakau, Huntly and Ngaaruawaahia, with MR1 applied in other MR Zone locations.
- Rangitahi Peninsula Zone
- Hopuhopu Zone
- Ohinewai Zone
- Future Urban Zone (applied at the General Residential Zone densities, as requested by WDC)

Relationship to Waikato 2070

The MDRS intensification modelling has been undertaken in relation to assessing capacity within the PDP Decisions Version and Variation 3 zones. It assesses the long-term feasibility across these zoned areas which fall within the scope of the MDRS application.

It is important to note the difference to the total capacity enabled for the district's urban areas in the long-term under the Waikato 2070 zoning structure. The introduction of additional growth areas and zoning patterns in the long-term under Waikato 2070 will consequently generate a different picture of long-term total capacity for the district.

The total long-term urban capacity for the district across both the PDP Decisions Version and Variation 3 Zones and the Waikato 2070 growth cell areas will be assessed within the 2023 Future Proof HBA.

Despite this, the Waikato 2070 infrastructure timing *has* been used to form the timing of infrastructure network supply to greenfield areas within the MDRS capacity assessment. This is appropriate as it forms the most recent information on infrastructure supply for the district's urban areas.

Urban Spatial Structure

The Waikato District is characterised by predominantly rural/non-urban land uses, with a number of smaller urban towns and settlements. Some of these areas function together with adjacent larger urban areas in Hamilton and Auckland, as well as serving demand within their surrounding urban and rural catchment areas.

The capacity assessment has been undertaken across the same urban areas within the district as defined under the 2021 FPP HBA. Within this, WDC assessment has defined the following four locations as forming urban areas that are subject to the application of MDRS:

- Pookeno

- Tuakau
- Huntly
- Ngaaruawaahia

The MDRS have been applied to the above areas as set out in the modelled scenarios in Section 3. Capacity totals have also been analysed across these areas to assess the overall effect of each modelled scenario.

The capacity within the other urban areas of the Waikato District has also been modelled to provide a comprehensive picture of the total urban capacity enabled across the district. Although outside of the scope of the MDRS, these areas also contribute to meeting demand for dwellings within the district and it is therefore important to understand their capacity. Other urban areas, beyond the locations where MDRS is applied, contained within the assessment include:

- Te Kauwhata
- Ohinewai
- Taupiri
- Hopuhopu
- Horotiu
- Raglan

The MDRS have not been applied to these other urban areas. However, it is noted that similar densities to the MDRS have been modelled in some locations through the presence of the MR Zone.

Zoned areas within these locations were identified as either greenfield or existing urban areas. A similar approach to the 2021 FPP HBA was followed where the existing urban edge was identified through a combination of aerial photographs and analysis of the most recent LINZ parcel boundary file. There is likely to have been some outward expansion of the urban edge since the analysis undertaken for the 2021 HBA.

Modelled Development Options and Dwelling Typologies

The modelling estimates the number of net additional dwellings that can be accommodated on each site. In line with the 2021 HBA modelling, the model tests for both infill and redevelopment capacity, and capacity within the existing urban vs. greenfield areas.

Within the existing urban area:

- Infill capacity refers to the number of additional dwellings that can be constructed within the existing urban area without the removal or demolition of any existing dwellings. It typically involves the construction of additional dwellings on the vacant areas of properties (e.g. constructing an additional dwelling in a large back yard area of an already developed site).
- Redevelopment capacity refers to the number of additional dwellings that can be constructed within the existing urban area through the redevelopment of sites. It involves the demolition or removal of existing dwellings on a site and the subsequent construction of a greater number of dwellings on the same site.

Within each category, three dwelling typologies are modelled, which each have different site size requirements. They also have different relationships between dwelling size and land area, where smaller sites can generally be developed more efficiently with attached dwellings. The modelled dwelling typologies include standalone (detached) dwellings, attached dwellings, and apartment dwellings. These are a combination of mainly two-level standalone dwellings on smaller sites, and attached dwellings. Attached dwellings are typically 2 storeys and are attached horizontally, with some 3-level development.

The capacity results also include maximums (across the three modelled typologies) of each of infill and redevelopment capacity within the existing urban area. Here, the model returns the greatest yield for each property out of the infill and redevelopment capacity options. Under the plan enabled capacity, the maximum redevelopment option will almost always represent the greatest yield. However, under the commercially feasible capacity often only a subset of the development options will be feasible (e.g. infill detached dwellings). This means that the model selects the highest yield from this subset (i.e. feasible dwellings), often resulting in smaller feasible maximums on a site than plan enabled maximums.

Vertically attached apartment dwellings have also been modelled within the plan enabled capacity within the Commercial and proposed HDR zones. The commercial feasibility of this typology has not been modelled within this project scope.

4.2 Plan Enabled Capacity

The plan enabled capacity estimates the total number of additional dwellings enabled through the application of planning provisions. It does not take into account the commercial feasibility of construction of dwellings or infrastructure constraints.

Modelling Stages

The key stages of the plan enabled capacity modelling are outlined within the 2021 FPP HBA. The main changes and extensions to the MDRS modelling include:

- Defining the number of sites that can be formed through subdivision of each property/vacant area. This step identifies the number of sites that can be formed through applying the minimum site areas required for subdivision. These are based on the PDP minimum site areas for each base zone.
- Estimate the potential number of dwellings on each formed site. This additional stage applies assumptions on the land area required to construct a dwelling of each typology and then calculates how many dwellings can be accommodated within each of the formed sites. In line with the MDRS, the model allows for up to three dwellings to be accommodated on each formed site.
  The model tests for three dwelling typologies – standalone (detached) dwellings, attached dwellings and apartment dwellings. Larger minimum land areas are required to accommodate detached dwellings than attached dwellings.
  The input table in Section 4.4 identifies the input assumptions for minimum land area required for each dwelling typology within each zone and scenario. These minimum land areas take into account the maximum densities observed in recent developments in other locations in relation to the average land area required to accommodate each dwelling. They have also been tested for their ability to accommodate a minimum floorspace area within a 3-dimensional building footprint (up to 3 storeys) and outdoor living space requirements.

- Infill modelling. A geometrical approach has been undertaken within FME GIS modelling software to identify the vacant areas of existing properties that are suitable for infill development. The approach is outlined in more detail within the 2021 HBA and associated documentation, and has been modified in the following ways to reflect the MDRS:
    - The setbacks from site boundaries as set out within the MDRS have been applied.
    - Vacant areas are tested for their potential road access.
    - Road accessible vacant areas are then tested for their ability to accommodate dwellings through the application of shape factor input assumptions. Under the MDRS modelling, up to three shape factors on each site were tested (compared to 1 to 2 shape factors under the 2021 HBA modelling). The number of shape factors accommodated determined the number of dwellings tested on each site. The shape factor input assumptions are included within the input table within the model.
    - Infill areas were then adjusted to allow for planning requirements to be met for any existing dwellings on the remainder of the site (using the MDRS parameters). The final areas were then input into the Residential Capacity MDRS Model to test for plan enabled and feasible capacity.
- Further spatial analysis of developable areas. WDC have undertaken further analysis of planning overlays and physical constraints to development since the 2021 HBA and earlier 2022 MDRS modelling. This has resulted in updated information on the inclusion or exclusion of certain areas in relation to the capacity assessment. Modelled capacity outputs therefore differ to earlier modelled outputs to reflect the updated planning information.
- Further individual property filtering. Additional site-level examination of outputs has been undertaken by WDC since the HBA. This process has removed individual properties from capacity that either contain social infrastructure (e.g. schools, hospitals, parks, etc), retirement villages[14] and other sites which have known constraints. Part of this process has removed undevelopable areas of sites due to their steep topography adjacent to stream areas.

4.3 Commercially Feasible Capacity

The commercially feasible capacity estimates the share of plan enabled capacity that would represent potentially feasible development options for commercial developers to construct a dwelling(s). The calculations are undertaken at the individual property level to estimate the costs of constructing the dwellings estimated to be able to be accommodated under the planning provisions, then compared to a potential sales price to determine if there is a sufficient margin for developments to be potentially commercially feasible.

Importantly, commercially feasible capacity should not be confused with growth – it is a measure of the potentially feasible capacity development options, some of which is likely to get taken up by the market with growth. Refer to the 2021 HBA for a more detailed description of the measure of commercially feasible capacity.

[14] Capacity within existing retirement village sites has not been included within the modelling to remain conservative. These sites are typically larger sites that already contain significant levels of development and are less likely to be available to meet general non-retirement demand within the market.

The MDRS commercial feasibility model expands upon the existing modelling capability developed under the 2021 HBA. Different components of the model are replaced/expanded to reflect the MDRS and other intensification provisions. The key components are:

- Estimating the size and configuration of dwellings on each property. The model firstly estimates the physical features of each potential dwelling on the formed sites. It estimates the floorspace size and number of storeys of each dwelling, with the three different dwelling types (not additive) tested for each site. This component of the 2021 HBA model is replaced with a new component that reflects the step-change in the nature of development under the MDRS. This is important because the relationships of dwelling size and type relative to site sizes are likely to be substantially different under the MDRS. This has implications for construction costs.

  The model runs off a series of floor area ratio (FAR) curves that estimate the dwelling size that can be constructed on each site. These are established through assessing the dwelling sizes recently developed in higher density locations in other areas. They are also cross-checked against the three-dimensional parameters of the MDRS. This part of the model also identifies the number of storeys of each dwelling.

  Minimum dwelling site area for each typology and for each underlying PDP base zone are contained in Table 4-1 in Section 4.4. The model will tend toward these dwellings as a minimum, but will generate a range of dwelling sizes based on the initial site size formation. The dwelling sizes allocated will be at these sizes or larger as they are scaled to the calculated land area per dwelling on each site.

  The outputs of this component of the model are the number of dwellings on each site, their floorspace size and storeys. This is calculated for each dwelling typology option (standalone dwellings vs. duplex/terraced dwellings vs. apartments). These are not additive, but a maximum yield is identified for each property (as set out in Section 4.1) where the model selects the highest individual yield that can be constructed. These outputs form the inputs to the next stage of the model where the cost is calculated to construct each potential dwelling.

- Estimating the cost to construct each dwelling. This stage of the model estimates the total cost to construct each dwelling identified within the previous stage. The structure of the model is consistent with that used under the 2021 HBA, with a number of updated components as noted below. Updates have occurred in relation to both updated base costs as well as updates to the structure of costs to reflect the shift in the nature of dwelling development.

  The costs applied within the model include:

  i. Land costs.
  ii. Existing dwelling costs (redevelopment).
  iii. Site preparation costs including landscaping and driveway/parking areas and any demolition costs. These ratios to site area have also been updated from the 2021 HBA.
  iv. Construction costs. In addition to the base level cost increases in construction, further cost increases have been applied within the model to reflect a shift in the average number of storeys per dwelling where per metre rates increase with the number of storeys. These have been applied at an individual level to reflect the estimated number of storeys of each dwelling. As such, there is a substantial per

m2 cost increase within the model from the 2021 HBA arising from a combination of base level shifts and changes in the nature of dwellings.

v. Ancillary costs (infrastructure/utilities connections, professional services, consents, development contributions). WDC have supplied updated development contributions information which has been applied within the model.

- **Estimating the potential sales price of each dwelling.** This component of the model has been updated significantly from the 2021 HBA. Updates relate to the sales prices for higher density dwellings as well as the underlying spatial structure affecting prices.
    - **Base Spatial Structure.** At a base level, the model applies the same spatial structure as the 2021 HBA, driven by the urban spatial structure identified in Section 4.1. This structure is also applied to the property land prices. Further differentiation in prices have also been applied through the level 1 to 5 area value structure.
    - **Estimation from other markets.** Analysis of higher density dwellings within other urban economies was undertaken to inform the modelled sales prices within the urban areas across the district. This included considering the differences between sales prices of higher density dwellings and other dwellings at a density reflective of existing lower densities within similar areas. This approach was undertaken within the context of limited data from limited establishment of medium to higher density dwellings within the district's market.

As requested, commercial feasibility modelling has been undertaken within the current market and reflects the areas of plan enabled capacity that may potentially represent feasible options for commercial developers. Importantly, it should not be confused with growth – it is a measure of the potential capacity, some of which is likely to get taken up by the market with growth. Refer to the 2021 HBA for a more detailed description of the measure of commercially feasible capacity.

4.4 Modelling Density Inputs

Minimum subdivision area requirements and land areas per dwelling formed inputs to the model. These are the initial land areas required to form a site within each zone, which could then be tested to accommodate up to three dwellings; and the land areas required, per dwelling, within these formed sites.

The minimum subdivision area requirements were supplied by WDC and reflect the subdivision requirements of the PDP. The minimum land area requirements were then established as input assumptions within the model. These are contained below in Table 4-1.

Initial three-dimensional modelling work undertaken by the Hamilton City Council (HCC) GIS team estimated the land areas required to accommodate different dwelling sizes and typologies. These were analysed as a starting point to determine parameters to apply to the Waikato District urban areas. The land areas per attached and apartment dwelling within each site reflect one-third of the initial site formation area to accommodate three dwellings upon each site. The viability of these densities was triangulated with the initial HCC modelling. Larger minimum areas (based on analysis of development patterns in other urban economies) were assumed to be required for detached dwellings to reflect the site area required to physically construct a standalone dwelling.

Zones with larger minimum subdivision site areas contained larger minimum land area per dwelling requirements. These were set at a minimum of one third of the subdivision area to ensure the model allocated only up to three dwellings per site.

Importantly, Table 4-1 contains the *minimum* land areas which are formed within the model to accommodate dwellings. These have been applied to the existing spatial structure of the WDC Ratings Database, with sites formed using the existing ratings property boundaries. In most cases, the existing property boundaries exceed the minimum areas, meaning that sites (and corresponding land areas per dwelling) are formed at lower densities than the minimums within the table[15].

In several areas, agreed subdivision yields that were at densities that differed to the PDP zone, were supplied by WDC. The model was required to adopt these densities for the initial site formation to reflect the structure/development plan yields. If applicable, the MDRS were then applied to these formed lots to accommodate up to three dwellings on each site.

Initial conversions have been applied to the Waikato District greenfield areas prior to the application of the land areas in Table 4-1. Greenfield areas were first multiplied by a factor of less than 100% to take account of the share of area within the greenfield growth cells that is unlikely to be developable. This is an important step as the PDP contains a number of greenfield areas that have been broadly identified as future growth areas that do not take into account land features that would likely limit the developable area.

The initial developable area conversion factors, applied by location are set out below. Lower conversion rates were applied in some locations to reflect the developable areas identified from structure plans or development agreements:

- Pookeno – 70%
- Tuakau – 70%
- Te Kauwhata – 70%
- Ohinewai – 59%
- Huntly – 70%
- Taupiri – 70%
- Hopuhopu – 44%
- Ngaaruawaahia – 70%
- Horotiu – 70%
- Raglan[16] – 70%

Following the calculation of greenfield developable areas, these net areas were then multiplied by a further 70% to include an allowance of 30% of the developable area for roads and reserves[17]. The remaining net areas were then divided into lots and dwellings in accordance with Table 4-1.

[15] For example, if a Residential Zone property of 900m2 were entered into the model, it would form only one initial site due to insufficient land area to form two sites at the zone's minimum subdivision requirement of 500m2. Consequently, the model would construct dwellings at an average land area of 300m2 per dwelling.

[16] Rangitahi Peninsula Zone lots by precinct were applied as individualised site areas within the model.

[17] For example, a 10ha General Residential Zone greenfield block of land identified broadly within the PDP in Pookeno would translate into 7ha of developable area. This would then translate into 4,900m2 of net land area that would be divided into lots at a density of 450m2 per lot to form around 109 lots, each potentially accommodating up to three dwellings.

Table 4-1: Minimum Site Area Subdivision and Land Area per Dwelling Minimum Modelling Inputs by Zone and Typology

Zone	Sub-Zone/Area	Dwelling Typology	Initial Subdivision Requirement - Land Area (m2)	Minimum Land Area per Dwelling (m2)
High Density Residential		Detached	210	210
		Attached	210	100
		Terraced Housing/Apartments	210	67
Medium Density Residential		Detached	210	210
		Attached	210	100
		Terraced Housing/Apartments	210	67
Medium Density Residential 1		Detached	210	210
		Attached	210	100
		Terraced Housing/Apartments	210	67
Medium Density Residential 2		Detached	210	210
		Attached	210	100
		Terraced Housing/Apartments	210	67
General Residential	No MDRS Applied	Detached	450	450
		Attached	450	450
		Terraced Housing/Apartments	450	450
General Residential	MDRS Applied	Detached	450	200
		Attached	450	150
		Terraced Housing/Apartments	450	150
General Residential	Lakeside Te Kauwhata Precinct	Detached	250	250
		Attached	250	250
		Terraced Housing/Apartments	250	250
General Residential	Te Kauwhata Ecological Residential Area	Detached	875	875
		Attached	875	875
		Terraced Housing/Apartments	875	875
General Residential	Non-Reticulated	Detached	2,500	2,500
		Attached	2,500	2,500
		Terraced Housing/Apartments	2,500	2,500
Future Urban	No MDRS Applied	Detached	450	450
		Attached	450	450
		Terraced Housing/Apartments	450	450
Future Urban	MDRS Applied	Detached	450	200
		Attached	450	150
		Terraced Housing/Apartments	450	150
Hopuhopu/Ohinewai		Detached	450	450
		Attached	450	450
		Terraced Housing/Apartments	450	450

Source: M.E Waikato District Residential Capacity Model, 2022/2023.

Vertically-Attached Apartment Dwellings

The plan enabled capacity for vertically-attached apartment dwellings was modelled within the commercial zones and the Kāinga Ora-proposed HDR zone. Within the following commercial zones, three-storey buildings were modelled, with one storey allocated to residential uses:

- Commercial Zone
- Town Centre
- Local Centre

Within these zones, it was assumed that ground level and the first floor would be occupied by commercial uses, with residential uses occupying the third storey.

The Kāinga Ora-proposed 24.5m height variation increases the buildings to 6 storeys. Under this scenario, it was assumed that the first two storeys would remain in commercial uses, with a total of four storeys of residential uses allocated to storeys 3 to 6.

Within the Kāinga Ora-proposed HDR zone, it was assumed that all six storeys would be allocated to residential uses.

5 Modelled Capacity

This section contains the modelled results of the plan enabled and commercially feasible capacity under each modelled scenario. It shows the effect of the intensification provisions on capacity as well as the effect of the qualifying matters on the capacity enabled under the MDRS.

This section firstly sets out the projected demand for urban dwellings across the district. This has been provided for the short, medium and long-term, and provides useful context for understanding the level of capacity modelled under each of the scenarios.

The dwelling capacity results are firstly reported separately for each scenario within this section (sub-sections 5.1 to 5.6). They are then compared in sub-section 5.5, which quantifies the effect of Variation 3 on overall dwelling capacity relative to the baseline PDP Decisions Versions planning provisions as well as the effect of qualifying matters on intensification. Each section contains both the plan enabled and commercially feasible capacity outputs.

The plan enabled capacity is reported for the short, medium and long-term. Although the zoning pattern is held constant, the enabled capacity increases as a result of spatial extensions to the infrastructure networks into greenfield areas.

The commercial feasibility modelling has been undertaken within the current market and across the short, medium and long-term. It reflects the areas of plan enabled capacity that may potentially represent feasible options for commercial developers. Furthermore, the modelling has been undertaken using a 20% profit margin. It is likely that some development outside of this range may occur at a lower margin as there are increased shares of plan enabled capacity with estimated lower profit margins.

The modelling of capacity through time is important. This is because it is likely that higher shares of the plan enabled capacity would become commercially feasible development options for developers through time with market growth. This is particularly important when modelling the introduction of new types of dwelling densities and capacities within the district, which may not yet be reflected in existing patterns of development.

Medium to higher density development is not yet well established within the Waikato District, particularly within lower value areas such as Huntly and parts of Ngaaruawaahia. These areas are lower value, with strong market tendencies toward lower density development. The density of development may increase through time, where medium density may become more established over the medium to longer-term. This is more likely to occur within the higher value market areas closer to the edges of the larger urban economies of Auckland and Hamilton.

The capacity results are net additional dwellings where the existing dwellings have been removed from the calculated gross yields on each property. The tables within the following sub-sections show the net additional dwellings in accordance with the capacity structure outlined in Section 4.1.

The first portion of the tables show the modelled capacity within each typology for infill development, including a maximum yield across the three typologies[18]. The middle section contains the redevelopment capacity across the three options, including maximums for redevelopment as well as redevelopment and infill options combined. The remainder of the table shows the greenfield capacity in this structure.

Importantly, the columns within the table are not additive. The maximum columns show the maximum yield combinations within each development pathway (infill, redevelopment or greenfield), as well as the final column containing the total across the greenfield and existing urban areas.

The tables contain both the outputs for the areas where MDRS is applied (refer to Section 4.1) as well as the total urban areas of the district. Sub-totals are provided within the tables for the MDRS areas to show the effect of the MDRS application within these areas.

5.1 Projected Urban Demand

The total projected urban dwelling demand across the Waikato District is summarised below in Table 5-1 for the short, medium and long-term. The projected demand is from the 2021 Future Proof HBA[19] and forms the most recent urban dwelling demand projections at the time of analysis[20].

The district's total demand for urban dwellings is projected to nearly double over the long-term (+90% to 2050), with a total projected increase for an additional 9,700 dwellings (or 11,200 dwellings with a margin applied[21]).

Over half of this additional demand is projected to occur within the four main urban towns where MDRS is applied. Within these areas, there is a projected demand for an additional 5,000 dwellings over the long-term. Pookeno and Huntly form the two largest areas of projected long-term demand, with projected net increases of 1,900 and 1,700 dwellings respectively. There are smaller projected increases within Tuakau (+800 dwellings) and Ngaaruawaahia (+600 dwellings).

[18] The maximum yield has been calculated at the property level and then aggregated to each location within the table. This means that the maximums within the commercially feasible tables will in most cases not align with the largest column value by typology. This is because some properties may have feasible development options across higher density dwelling options, while others may only have feasible capacity for lower yield options. Therefore, the aggregation of feasible yields at the property level is a combination of some development within higher density typologies, and others at lower density typologies.

[19] M.E, 2021. *NPS-UD Housing Development Capacity Assessment: Future Proof Partners,* 30 July 2021, final.

[20] It is noted that the urban dwelling demand is currently being updated as part of the 2023 FPP HBA. The underlying household projections have not changed since the 2021 HBA, with changes instead potentially occurring in relation to the estimation of the urban share of projected demand.

[21] The NPS-UD requires the application of margins to projected demand. Inclusion of margins ensures that the capacity sufficiency assessment allows for competitiveness within the market to meet demand.

Table 5-1: Waikato District Projected Urban Dwelling Demand by Location: 2020-2050 (2021 HBA)

AREA	Dwelling Demand				Change in Demand			Change in Demand + Margin		
	2020	2023	2030	2050	Short-Term: 2020-2023	Medium-Term: 2020-2030	Long-Term: 2020-2050	Short-Term: 2020-2023 (20% margin)	Medium-Term: 2020-2030 (20% margin)	Long-Term: 2020-2050 (15% margin)
Pokeno	1,000	1,300	1,900	2,900	300	1,000	1,900	400	1,100	2,200
Tuakau	1,600	1,800	2,100	2,400	200	500	800	200	600	900
Huntly	2,800	3,100	3,600	4,500	300	800	1,700	300	1,000	1,900
Ngaruawahia	2,100	2,300	2,500	2,700	200	400	600	300	500	700
Total MDRS Main Urban Areas	***7,500***	***8,500***	***10,100***	***12,500***	***1,000***	***2,700***	***5,000***	***1,200***	***3,200***	***5,800***
Other main urban areas (2021 HBA)	2,800	3,200	4,100	6,700	400	1,200	3,800	500	1,500	4,400
Settlements (2021 HBA)	500	600	700	1,400	40	200	900	50	200	1,000
Total Urban	***10,800***	***12,200***	***14,900***	***20,600***	***1,400***	***4,000***	***9,700***	***1,700***	***4,800***	***11,200***
Non-Urban	16,600	17,000	18,300	22,600	400	1,700	6,100	500	2,000	7,000
Total	**27,400**	**29,300**	**33,100**	**43,200**	**1,900**	**5,700**	**15,800**	**2,200**	**6,900**	**18,100**

Source: M.E 2021 NPS-UD Housing Demand Assessment.

5.2 Scenario 1: Baseline PDP Decisions Version Planning Provisions Capacity

This section contains the existing baseline capacity modelled on the PDP Decisions Version provisions. It does not contain any application of *MDRS* intensification provisions or qualifying matters. However, the capacity is substantially above that currently enabled in the existing ODP planning provisions.

5.2.1 Plan Enabled Capacity

The modelled plan enabled capacity across the short, medium and long-term is contained in Table 5-2 to Table 5-4. Under the PDP Decisions Version planning provisions, there is a modelled capacity for a net additional 37,200 dwellings within Waikato district's urban areas in the short-term, increasing to around 54,300 dwellings in the long-term. This includes capacity within the existing urban areas and the greenfield areas for future urban expansion.

Over two-thirds of the capacity within the district occurs within the existing urban areas (37,100 dwellings), with around three-quarters of the existing urban capacity (27,500 dwellings) within the main urban towns where MDRS is applied in later scenarios.

Most of the existing urban plan enabled capacity within these towns occurs within the MR Zone where much higher densities are enabled than constructed across the same areas under the ODP provisions. Large intensification is enabled through redevelopment of these areas, predominantly within the MR Zone, meaning that around five times the existing dwelling base could theoretically be accommodated within the existing urban extent of the main MDRS urban areas of Pookeno, Tuakau, Huntly and Ngaaruawaahia.

While there is a large increase in capacity within the existing urban areas, almost all of this occurs at substantially higher densities than the existing levels of development within the towns.

Some additional capacity is also enabled within the GR Zone within the existing urban areas of the towns. However, the provision is considerably lower than within the MR Zone as enabled densities are closer to existing lower density development patterns.

A further 17,200 dwellings are enabled within the district's urban greenfield areas over the long-term. Over half (10,400 dwellings) of the capacity is within the main four towns. Greenfield capacity is concentrated into the northern parts of the district within Pookeno and Tuakau, which contain half (8,500 dwellings) of the district's long-term greenfield plan enabled capacity.

Outside of the four main MDRS area towns, there are also sizeable shares of capacity enabled within Te Kauwhata and Raglan. These towns also contain significant areas of MR Zone under the PDP, increasing the permitted level of development from that previously enabled under the ODP.

Table 5-2: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 1 – PDP Decisions Version Base Zones and No MDRS – Short-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Short-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/A partment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	800	1,200	1,500	-	1,500	1,200	2,100	2,800	400	3,200	3,200	-	-	-	-	-	3,200
Tuakau	1,000	2,100	2,700	-	2,700	2,600	5,800	8,600	900	9,500	9,500	-	-	-	30	30	9,500
Huntly	800	1,300	1,600	-	1,600	2,100	3,500	4,800	900	5,600	5,600	-	-	-	-	-	5,600
Ngaruawahia	1,100	2,300	3,000	-	3,000	2,800	5,800	8,600	500	9,100	9,100	-	-	-	-	-	9,100
Total MDRS Area	***3,700***	***6,900***	***8,800***	***-***	***8,800***	***8,700***	***17,200***	***24,900***	***2,600***	***27,500***	***27,500***	***-***	***-***	***-***	***30***	***30***	***27,500***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	-	-	-	30	30	5,400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	200	200	200	-	200	200	200	200	200	500	500	-	-	-	-	-	500
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	-	-	-	-	-	500
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	-	-	-	-	-	3,300
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***-***	***-***	***-***	***30***	***30***	***9,700***
District Total Urban	**6,100**	**10,400**	**13,000**	**-**	**13,000**	**12,800**	**23,500**	**33,300**	**3,800**	**37,100**	**37,100**	**-**	**-**	**-**	**60**	**60**	**37,200**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-3: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 1 – PDP Decisions Version Base Zones and No MDRS – Medium-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Medium-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/A partment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	800	1,200	1,500	-	1,500	1,200	2,100	2,800	400	3,200	3,200	3,100	3,600	4,000	100	4,100	7,300
Tuakau	1,000	2,100	2,700	-	2,700	2,600	5,800	8,600	900	9,500	9,500	3,600	3,600	3,600	400	3,900	13,400
Huntly	800	1,300	1,600	-	1,600	2,100	3,500	4,800	900	5,600	5,600	300	500	600	-	600	6,200
Ngaruawahia	1,100	2,300	3,000	-	3,000	2,800	5,800	8,600	500	9,100	9,100	700	900	1,000	-	1,000	10,100
Total MDRS Area	***3,700***	***6,900***	***8,800***	***-***	***8,800***	***8,700***	***17,200***	***24,900***	***2,600***	***27,500***	***27,500***	***7,700***	***8,500***	***9,200***	***500***	***9,700***	***37,100***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	1,800	1,900	2,100	400	2,400	7,800
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	200	200	200	-	200	600
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	700	700	700	-	700	4,000
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***4,400***	***4,500***	***4,600***	***400***	***5,000***	***14,700***
District Total Urban	**6,100**	**10,400**	**13,000**	**-**	**13,000**	**12,800**	**23,500**	**33,300**	**3,800**	**37,100**	**37,100**	**12,100**	**13,000**	**13,800**	**800**	**14,700**	**51,800**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-4: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 1 – PDP Decisions Version Base Zones and No MDRS – Long-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Long-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	800	1,200	1,500	-	1,500	1,200	2,100	2,800	400	3,200	3,200	3,600	4,000	4,500	100	4,600	7,800
Tuakau	1,000	2,100	2,700	-	2,700	2,600	5,800	8,600	900	9,500	9,500	3,600	3,600	3,600	400	3,900	13,400
Huntly	800	1,300	1,600	-	1,600	2,100	3,500	4,800	900	5,600	5,600	300	500	600	-	600	6,200
Ngaruawahia	1,100	2,300	3,000	-	3,000	2,800	5,800	8,600	500	9,100	9,100	900	1,100	1,200	-	1,200	10,300
Total MDRS Area	***3,700***	***6,900***	***8,800***	***-***	***8,800***	***8,700***	***17,200***	***24,900***	***2,600***	***27,500***	***27,500***	***8,400***	***9,200***	***9,900***	***500***	***10,400***	***37,800***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	2,300	2,500	2,700	400	3,000	8,400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	600	600	600	-	600	1,100
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	100	100	100	-	100	100
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	1,300	1,300	1,300	-	1,300	4,600
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***6,100***	***6,200***	***6,400***	***400***	***6,800***	***16,400***
District Total Urban	**6,100**	**10,400**	**13,000**	**-**	**13,000**	**12,800**	**23,500**	**33,300**	**3,800**	**37,100**	**37,100**	**14,500**	**15,400**	**16,300**	**800**	**17,200**	**54,300**

Source: M.E Waikato Residential Capacity Model, 2023.

5.2.2 Commercially Feasible Capacity

The following sub-sections contain the estimated areas of plan enabled capacity that are likely to form potential commercially feasible development options for developers in the current market as well as the short, medium and long-term. Importantly, the capacity should not be confused with growth – it is a measure of the potential capacity, some of which is likely to get taken up by the market with growth. Refer to the 2021 HBA for a more detailed description of the measure of commercially feasible capacity.

Current Market: 2021

The modelling estimates that around 9% of the plan enabled capacity currently represents commercially feasible development options within the district's urban areas. It amounts to an estimated 3,200 dwellings as shown in Table 5-5.

Importantly, the commercially feasible capacity does not indicate the *number* of dwellings it would be feasible to currently construct. It instead estimates the areas of plan enabled capacity that may be commercially feasible development opportunities for a profit-driven developer. The market is likely to take up a portion of this capacity, which will be determined by a number of factors including market demand, availability of capacity to the market and capacity within the development and construction sectors.

Around two-thirds of the feasible development capacity is contained within the four main towns of Pookeno, Tuakau, Huntly and Ngaaruawaahia. These towns have a combined commercially feasible capacity of an additional 2,100 dwellings. This all occurs as intensification within the existing urban areas where infrastructure is not supplied to the greenfield areas within the current market.

The shares of enabled development opportunity that are feasible are highest within Pookeno, followed by Tuakau and Ngaaruawaahia. There are lower rates of feasibility within Huntly in line with its lower value profile. Outside of these areas, Raglan also has higher rates of feasibility. This reflects the higher value of the Raglan location.

The patterns of feasibility within the current market reflect the existing development patterns within the district of detached dwellings on full sites. This is due to a combination of patterns of dwelling demand as

well as the limited difference in provisions for more intensive dwelling typologies across much of the urban area.

Table 5-5: Waikato District Current Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 1 – PDP Decisions Version Base Zones and No MDRS

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				
	Detached	Attached	Terraced /Apartment	Max Infill	Detached	Attached	Terraced /Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	200	300	-	400	300	300	-	500	600	-	-	-	-	600
Tuakau	200	200	-	400	400	500	-	700	800	-	-	-	-	800
Huntly	100	-	-	100	90	-	-	90	200	-	-	-	-	200
Ngaruawahia	200	-	-	200	500	-	-	500	600	-	-	-	-	600
Total MDRS Area	***800***	***500***	***-***	***1,100***	***1,300***	***900***	***-***	***1,800***	***2,100***	***-***	***-***	***-***	***-***	***2,100***
Te Kauwhata	200	-	-	200	200	-	-	200	300	-	-	-	-	300
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	60	-	-	60	70	-	-	-	-	70
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Raglan	400	100	-	500	500	200	-	600	700	-	-	-	-	700
Total Other Urban Areas	***700***	***100***	***-***	***800***	***800***	***200***	***-***	***1,000***	***1,100***	***-***	***-***	***-***	***-***	***1,100***
District Total Urban	**1,500**	**600**	**-**	**1,900**	**2,100**	**1,000**	**-**	**2,800**	**3,200**	**-**	**-**	**-**	**-**	**3,200**

Source: M.E Waikato Residential Capacity Model, 2023.

Short-Term: 2024

The estimated commercially feasible capacity is projected to increase to around 4,700 dwellings within the short-term (see Table 5-6). The patterns of feasible capacity are similar to the current market, with the highest shares of capacity occurring within the main urban areas where MDRS is applied in other scenarios.

The increase in feasible capacity through the short-term occurs entirely within the existing urban areas as infrastructure is not supplied to the greenfield areas within the short-term. Around three-quarters of the increase in feasible capacity is projected to occur within the main urban areas where MDRS is applied in other scenarios. The feasibility of intensification within existing urban areas gradually increases through time with market growth.

Table 5-6: Waikato District Short-Term (2024) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 1 – PDP Decisions Version Base Zones and No MDRS

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				
	Detached	Attached	Terraced /Apartment	Max Infill	Detached	Attached	Terraced /Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	300	400	-	600	300	500	-	600	800	-	-	-	-	800
Tuakau	300	400	-	500	600	1,000	-	1,200	1,300	-	-	-	-	1,300
Huntly	200	-	-	200	200	-	-	200	300	-	-	-	-	300
Ngaruawahia	400	-	-	400	700	-	-	700	800	-	-	-	-	800
Total MDRS Area	***1,100***	***800***	***-***	***1,700***	***1,700***	***1,500***	***-***	***2,700***	***3,200***	***-***	***-***	***-***	***-***	***3,200***
Te Kauwhata	300	-	-	300	400	-	-	400	400	-	-	-	-	400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	70	-	-	70	80	-	-	-	-	80
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	100	-	-	100	10	-	-	10	100	-	-	-	-	100
Raglan	500	200	-	600	600	200	-	800	800	-	-	-	-	800
Total Other Urban Areas	***900***	***200***	***-***	***1,000***	***1,100***	***200***	***-***	***1,200***	***1,500***	***-***	***-***	***-***	***-***	***1,500***
District Total Urban	**2,100**	**1,000**	**-**	**2,700**	**2,800**	**1,700**	**-**	**3,900**	**4,700**	**-**	**-**	**-**	**-**	**4,700**

Source: M.E Waikato Residential Capacity Model, 2023.

Medium-Term: 2031

The estimated commercially feasible capacity is projected to increase substantially to around 20,500 dwellings in the medium-term (see Table 5-7). This amounts to 40% of the plan enabled capacity.

Most of the medium-term increase in feasible capacity occurs within the greenfield areas where infrastructure is supplied to these areas within the medium-term. Feasible capacity within these areas is dominated by detached dwellings, with some feasibility for attached dwellings within Pookeno, Te Kauwhata, Tuakau and Ngaaruawaahia.

The distribution of feasible greenfield capacity reflects the pattern of infrastructure provision, with the largest amounts of capacity occurring within the northern parts of the district (Pookeno and Tuakau), Te Kauwhata and Ohinewai. Most (79%) of the infrastructure-served greenfield capacity is feasible, with lower rates of feasibility within Huntly.

The feasibility of intensification within the existing urban area is also projected to increase within the medium-term. There is a total projected feasible capacity of around 8,800 dwellings, which amounts to nearly one-quarter (24%) of the plan enabled capacity.

The medium-term existing urban feasible capacity is highest within the main urban towns of Pookeno, Tuakau, Ngaaruawaahia, Te Kauwhata and Raglan. Feasibility is projected to increase within these higher value areas through time with market growth in medium-density dwellings. Feasible redevelopment opportunities that are projected to increase with market growth, although remain lower than the feasible share of infill and greenfield development.

Table 5-7: Waikato District Medium-Term (2031) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 1 – PDP Decisions Version Base Zones and No MDRS

	INFILL				REDEVELOPMENT					GREENFIELD (Medium-Term Infrastructure)				
LEVEL	Detached	Attached	Terraced /Apartment	Max Infill	Detached	Attached	Terraced /Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	300	600	-	700	300	900	-	1,000	1,100	3,100	900	-	3,600	4,700
Tuakau	500	1,000	-	1,200	900	2,700	-	2,900	3,000	3,300	300	-	3,300	6,300
Huntly	200	-	-	200	300	-	-	300	400	200	-	-	200	600
Ngaruawahia	400	300	-	600	1,200	700	-	1,600	1,600	600	200	-	700	2,300
Total MDRS Area	***1,400***	***1,900***	***-***	***2,600***	***2,700***	***4,200***	***-***	***5,800***	***6,100***	***7,200***	***1,400***	***-***	***7,800***	***13,900***
Te Kauwhata	500	800	-	900	600	800	-	1,000	1,300	1,600	300	-	1,800	3,000
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	90	-	-	90	100	-	-	100	100	200	-	-	200	300
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	-	-	200	90	-	-	90	200	30	-	-	30	200
Raglan	500	300	-	700	700	400	-	1,000	1,200	600	-	-	600	1,700
Total Other Urban Areas	***1,300***	***1,100***	***-***	***1,900***	***1,500***	***1,200***	***-***	***2,200***	***2,700***	***3,700***	***300***	***-***	***3,900***	***6,600***
District Total Urban	**2,700**	**2,900**	**-**	**4,500**	**4,300**	**5,500**	**-**	**8,000**	**8,800**	**11,000**	**1,700**	**-**	**11,700**	**20,500**

Source: M.E Waikato Residential Capacity Model, 2023.

Long-Term: 2051

In the long-term, the modelling projects that close to two-thirds (64%) of the plan-enabled capacity is likely to represent potentially feasible development options under the PDP Decisions Version provisions. This amounts to around 34,900 dwellings (see Table 5-8).

Overall, just over half (55%; 19,100 dwellings) of the feasible capacity is estimated to occur within the existing urban area, with a higher share as redevelopment options. The remainder (45%; 15,900 dwellings) is projected to occur within the greenfield areas. Most of the increase in greenfield feasible capacity within the long-term occurs as a result of further planned expansions of the infrastructure networks into these areas.

Most of the greenfield areas are estimated to be commercially feasible to develop in the long-term, albeit with a share at lower yields than that enabled under the Plan due to current market conditions. Greenfield areas are more likely to develop as less intensive dwelling typologies than some of the more intensive typologies enabled under the Plan. In particular, the MR Zone greenfield areas within Pookeno have lower rates of feasibility within attached dwellings than detached dwellings.

Approximately two-thirds of the feasible capacity is projected to occur within the main urban areas where MDRS is applied in other modelled scenarios. Within these areas, rates of feasibility are highest in Pookeno, Tuakau and Ngaaruawaahia. Huntly has lower rates of feasibility due to the lower market demand and value within this location. Outside of these areas, there are significant shares of feasible capacity within Te Kauwhata and Raglan, which also have relatively high rates of feasibility within the long-term.

Table 5-8: Waikato District Long-Term (2051) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 1 – PDP Decisions Version Base Zones and No MDRS

	INFILL				REDEVELOPMENT					GREENFIELD (Long-Term Infrastructure)				
LEVEL	Detached	Attached	Terraced /Apartment	Max Infill	Detached	Attached	Terraced /Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	400	800	400	900	500	1,500	300	1,600	1,700	3,600	4,000	1,300	4,400	6,100
Tuakau	700	1,800	1,200	2,200	1,600	4,700	1,800	5,400	5,600	3,600	3,300	600	3,600	9,200
Huntly	400	200	-	500	800	400	-	1,000	1,200	300	200	-	500	1,600
Ngaruawahia	600	1,700	300	1,900	2,000	4,800	-	5,100	5,200	900	400	-	1,100	6,300
Total MDRS Area	***2,100***	***4,400***	***2,000***	***5,500***	***4,900***	***11,400***	***2,100***	***13,100***	***13,600***	***8,400***	***8,000***	***1,800***	***9,600***	***23,200***
Te Kauwhata	700	1,500	700	1,600	1,100	3,200	400	3,300	3,400	2,300	2,200	1,300	2,600	6,000
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	100	-	-	100	200	-	-	200	200	600	-	-	600	800
Hopuhopu	-	-	-	-	-	-	-	-	-	100	-	-	100	100
Horotiu	200	-	-	200	200	-	-	200	300	300	-	-	300	600
Raglan	600	700	400	900	900	1,200	200	1,600	1,600	1,300	50	20	1,300	2,900
Total Other Urban Areas	***1,600***	***2,200***	***1,100***	***2,800***	***2,400***	***4,400***	***600***	***5,300***	***5,500***	***6,000***	***2,300***	***1,300***	***6,300***	***11,800***
District Total Urban	**3,800**	**6,600**	**3,100**	**8,400**	**7,300**	**15,800**	**2,700**	**18,300**	**19,100**	**14,400**	**10,200**	**3,200**	**15,900**	**34,900**

Source: M.E Waikato Residential Capacity Model, 2023.

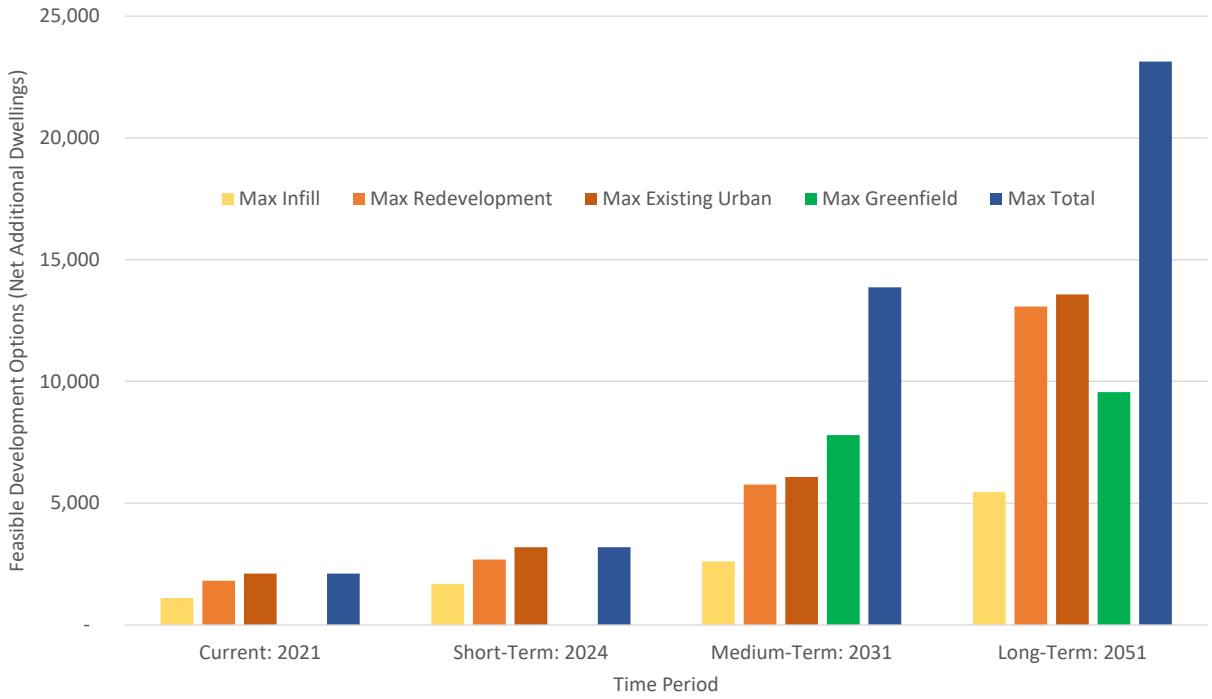
Summary of Scenario 1 Feasible Capacity

The projected commercially feasible capacity options are summarised across the different time periods in the graphs below. They show the maximum projected feasible dwelling development options across all typologies for the existing urban (incl. infill or redevelopment), greenfield and total areas across each of the time periods. Figure 5-1 shows the capacity for Pookeno, Tuakau, Huntly and Ngaaruawaahia, while Figure 5-2 shows the capacity across all of the district's modelled urban areas.

The graphs show that the feasible development capacity is projected to increase through time. The projected feasible greenfield capacity is predominantly a function of infrastructure supply to these areas. The greenfield capacity occurs in the medium-term when infrastructure is supplied, with some smaller increases in the long-term in line with the smaller infrastructure extensions.

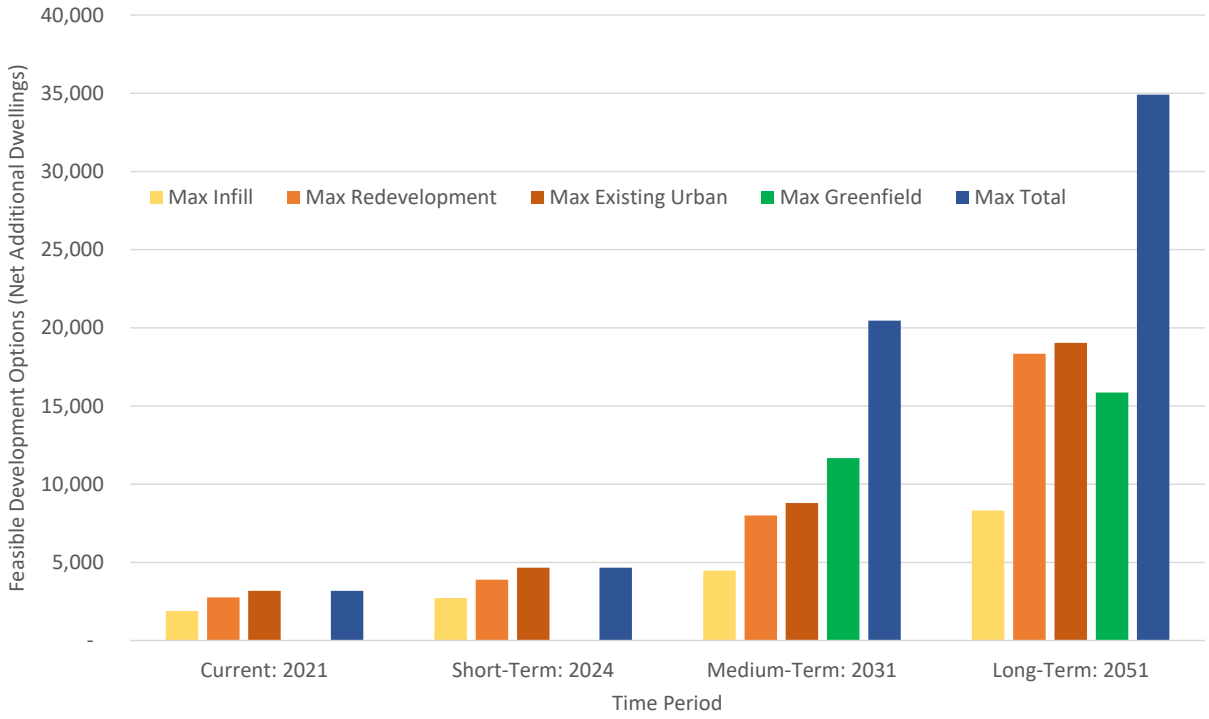
Capacity within the existing urban area increases through time. There are larger net increases in redevelopment capacity in the medium to long-term as this option becomes increasingly feasible through time with market growth.

Figure 5-1: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 1 – PDP Decisions Version Base Zones and No MDRS (Pookeno, Tuakau, Huntly and Ngaaruawaahia)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

Figure 5-2: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 1 – PDP Decisions Version Base Zones and No MDRS (All Urban Areas)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

5.3 Scenario 2: Unmodified Intensification Provisions

This section contains the unmodified intensification capacity modelled through the full application of MDRS to the PDP Decisions Version provisions without any modification through qualifying matters. It represents the highest level of intensification enabled by the MDRS when applied to the PDP Decisions Version zoning structure.

5.3.1 Plan Enabled Capacity

The modelled plan enabled capacity is contained in Table 5-9 to Table 5-11. The tables show the net additional dwellings that would be enabled with the application of the MDRS to the PDP Decisions Version zones in line with greenfield infrastructure provision over the short to long-term.

The application of the MDRS results in a large increase in capacity across the district's main urban areas. In total, there is an estimated plan enabled capacity for an additional 52,600 dwellings under this scenario in the short-term, increasing to around 85,900 dwellings in the long-term. In the short-term, all of the capacity occurs within the existing urban area, with infrastructure provision the same under all modelled scenarios. In the long-term, around 39% of the capacity (33,400 dwellings) occurs within the greenfield areas.

The application of MDRS to the PDP Decisions Version zones substantially increases the capacity within the district's urban areas. It increases the long-term plan enabled capacity by 58%, amounting to an additional 31,600 plan enabled dwellings.

The increases in capacity within this scenario occur within the General Residential and Future Urban Zones within the main urban townships where MDRS is applied. These include Pookeno, Tuakau, Huntly and Ngaaruawaahia. In these zones, the maximum density increases from one dwelling per 450m2 (as enabled without MDRS) to up to three dwellings per 450m2 with the application of MDRS to these zones. The capacity remains the same within the inner suburban areas covered by the MR Zone as the provisions within this zone already align with the MDRS.

There are significant changes in the patterns of growth enabled by the provisions within the application of MDRS. This scenario enables a much greater amount of capacity across the outer suburban and greenfield areas across the district's main urban towns of Pookeno, Tuakau, Huntly and Ngaaruawaahia. Significantly, it results in large changes to the types of development enabled within these areas. It shifts the enabled development patterns from detached dwellings on full sites, to also enable a range of medium-density dwelling options, including terraced housing.

The application of MDRS under this scenario substantially changes the balance of plan enabled capacity between inner and outer suburban and greenfield areas across the four main urban towns. Under this scenario, there is a much higher share of enabled capacity in these outer locations than without the application of MDRS where intensification options are instead concentrated into inner areas surrounding the commercial centres. This is likely to encourage more dispersed pattern of growth, with lower shares of growth occurring through intensification around centres.

The increase in capacity under this scenario from scenario 1 occurs entirely within the four main urban areas of Pookeno, Tuakau, Huntly and Ngaaruawaahia where MDRS is applied. In the long-term, the total capacity within these four areas increases from 37,800 dwellings to 69,400 dwellings.

The percentage increases in capacity are larger within the greenfield areas where the increase in density applies to nearly all of the zoned area. In comparison, the density within parts of the existing urban area remains unchanged due to the provisions of the MR Zone already aligning with those in the MDRS.

While the dwelling capacity under this scenario results in a large increase in potential capacity, it is likely that the market will more gradually shift toward more intensive development through time. The density of development delivered by the market, and therefore total yield achieved, is likely to be lower than that modelled under the intensification scenarios.

Table 5-9: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 2 – PDP Decisions Version Base Zones with MDRS – Short-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Short-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	1,700	2,600	2,900	-	2,900	3,700	5,500	6,300	400	6,700	6,800	-	-	-	-	-	6,800
Tuakau	1,400	2,900	3,500	-	3,500	3,700	7,700	10,600	900	11,400	11,400	-	-	-	30	30	11,500
Huntly	1,700	2,900	3,200	-	3,200	6,200	9,600	10,800	900	11,700	11,900	-	-	-	-	-	11,900
Ngaruawahia	1,600	3,300	4,000	-	4,000	5,300	9,300	12,100	500	12,600	12,700	-	-	-	-	-	12,700
Total MDRS Area	***6,500***	***11,700***	***13,600***	***-***	***13,600***	***18,900***	***32,100***	***39,800***	***2,600***	***42,400***	***42,900***	***-***	***-***	***-***	***30***	***30***	***42,900***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	-	-	-	30	30	5,400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	200	200	200	-	200	200	200	200	200	500	500	-	-	-	-	-	500
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	-	-	-	-	-	500
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	-	-	-	-	-	3,300
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***-***	***-***	***-***	***30***	***30***	***9,700***
District Total Urban	**8,800**	**15,200**	**17,800**	**-**	**17,800**	**23,100**	**38,500**	**48,300**	**3,800**	**52,100**	**52,500**	**-**	**-**	**-**	**60**	**60**	**52,600**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-10: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 2 – PDP Decisions Version Base Zones with MDRS – Medium-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Medium-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	1,700	2,600	2,900	-	2,900	3,700	5,500	6,300	400	6,700	6,800	5,700	8,900	9,300	100	9,400	16,300
Tuakau	1,400	2,900	3,500	-	3,500	3,700	7,700	10,600	900	11,400	11,400	7,400	11,300	11,300	400	11,600	23,000
Huntly	1,700	2,900	3,200	-	3,200	6,200	9,600	10,800	900	11,700	11,900	600	900	1,100	-	1,100	12,900
Ngaruawahia	1,600	3,300	4,000	-	4,000	5,300	9,300	12,100	500	12,600	12,700	1,300	2,100	2,200	-	2,200	15,000
Total MDRS Area	***6,500***	***11,700***	***13,600***	***-***	***13,600***	***18,900***	***32,100***	***39,800***	***2,600***	***42,400***	***42,900***	***15,100***	***23,100***	***23,900***	***500***	***24,300***	***67,200***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	1,800	1,900	2,100	400	2,400	7,800
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	200	200	200	-	200	600
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	700	700	700	-	700	4,000
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***4,400***	***4,500***	***4,600***	***400***	***5,000***	***14,700***
District Total Urban	**8,800**	**15,200**	**17,800**	**-**	**17,800**	**23,100**	**38,500**	**48,300**	**3,800**	**52,100**	**52,500**	**19,400**	**27,600**	**28,500**	**800**	**29,300**	**81,800**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-11: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 2 – PDP Decisions Version Base Zones with MDRS – Long-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Long-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	1,700	2,600	2,900	-	2,900	3,700	5,500	6,300	400	6,700	6,800	6,700	10,400	10,800	100	10,900	17,800
Tuakau	1,400	2,900	3,500	-	3,500	3,700	7,700	10,600	900	11,400	11,400	7,400	11,300	11,300	400	11,600	23,000
Huntly	1,700	2,900	3,200	-	3,200	6,200	9,600	10,800	900	11,700	11,900	600	900	1,100	-	1,100	12,900
Ngaruawahia	1,600	3,300	4,000	-	4,000	5,300	9,300	12,100	500	12,600	12,700	1,800	2,800	3,000	-	3,000	15,700
Total MDRS Area	***6,500***	***11,700***	***13,600***	***-***	***13,600***	***18,900***	***32,100***	***39,800***	***2,600***	***42,400***	***42,900***	***16,500***	***25,400***	***26,100***	***500***	***26,600***	***69,400***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	2,300	2,500	2,700	400	3,000	8,400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	600	600	600	-	600	1,100
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	100	100	100	-	100	100
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	1,300	1,300	1,300	-	1,300	4,600
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***6,100***	***6,200***	***6,400***	***400***	***6,800***	***16,400***
District Total Urban	**8,800**	**15,200**	**17,800**	**-**	**17,800**	**23,100**	**38,500**	**48,300**	**3,800**	**52,100**	**52,500**	**22,600**	**31,600**	**32,500**	**800**	**33,400**	**85,900**

Source: M.E Waikato Residential Capacity Model, 2023.

5.3.2 Commercially Feasible Capacity

The following sub-sections contain the estimated areas of plan enabled capacity that are likely to form potential commercially feasible development options for developers in the current market as well as the short, medium and long-term. Importantly, the capacity should not be confused with growth – it is a measure of the potential capacity, some of which is likely to get taken up by the market with growth. Refer to the 2021 HBA for a more detailed description of the measure of commercially feasible capacity.

Current Market: 2021

The estimated currently commercially feasible capacity is contained in Table 5-12 with the application of the MDRS to the PDP Decisions Version zones. It shows the net additional dwellings that are estimated to represent potentially feasible development options for commercial developers.

There is an estimated commercially feasible capacity of an additional 3,900 dwellings across the Waikato District's main urban areas. Nearly three quarters (72%; 2,800 dwellings) of the currently feasible capacity is located within the main urban areas where the MDRS are applied. Within this, feasible capacity is spread across Pookeno, Tuakau and Ngaaruawaahia, with only small numbers of feasible dwellings within Huntly. The feasible capacity in Huntly decreases when the MDRS are applied in the current market, which is likely to reflect the more limited ability for this lower value location to support the feasibility of more intensive types of dwellings.

The application of MDRS increases the currently feasible capacity by around 20%, equating to an increase of around 700 dwellings. The net increases occurs entirely within the existing urban GR Zone and greenfield areas across a combination of detached dwellings and lower intensity attached dwellings. More intensive enabled attached dwellings are not projected to currently be feasible within these areas.

Table 5-12: Waikato District Current Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 2 – PDP Decisions Version Base Zones with MDRS

	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				
LEVEL	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	400	600	-	700	400	600	-	700	900	-	-	-	-	900
Tuakau	400	300	-	500	600	600	-	900	1,000	-	-	-	-	1,000
Huntly	10	-	-	10	30	-	-	30	40	-	-	-	-	40
Ngaruawahia	300	-	-	300	800	-	-	800	900	-	-	-	-	900
Total MDRS Area	***1,100***	***1,000***	***-***	***1,500***	***1,800***	***1,200***	***-***	***2,400***	***2,800***	***-***	***-***	***-***	***-***	***2,800***
Te Kauwhata	200	-	-	200	200	-	-	200	300	-	-	-	-	300
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	60	-	-	60	70	-	-	-	-	70
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Raglan	400	100	-	500	500	200	-	600	700	-	-	-	-	700
Total Other Urban Areas	***700***	***100***	***-***	***800***	***800***	***200***	***-***	***1,000***	***1,100***	***-***	***-***	***-***	***-***	***1,100***
District Total Urban	**1,800**	**1,100**	**-**	**2,300**	**2,600**	**1,400**	**-**	**3,400**	**3,900**	**-**	**-**	**-**	**-**	**3,900**

Source: M.E Waikato Residential Capacity Model, 2023.

Short-Term: 2024

The estimated commercially feasible capacity is projected to increase to around 6,500 dwellings in the short-term across the district's main urban areas (see Table 5-13). In the short-term, it is estimated that around 12% of plan enabled capacity is likely to represent potentially feasible development options.

The share of feasible plan enabled capacity is higher for infill development within the existing urban area. The more intensive modelled dwelling typologies are more likely to establish initially within central areas of higher amenity. Overall, around one-quarter (24%) of the plan enabled infill capacity is estimated to be commercially feasible.

Redevelopment feasibility is lower, at 12% of plan enabled capacity across the main urban areas. This corresponds to a smaller market size and lower demand for this type of development within this market within the short-term. The feasibility of redevelopment is likely to increase through time as the market for this type of development grows through time.

The application of MDRS increases the short-term feasible capacity by around 1,800 dwellings across the existing urban area. Part of this occurs through the increase in yields on sites that are already feasible to develop without MDRS, while a share is also likely to occur through an increase in the number of sites that are feasible to develop.

Table 5-13: Waikato District Short-Term (2024) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 2 – PDP Decisions Version Base Zones with MDRS

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	800	900	-	1,200	500	900	-	900	1,400	-	-	-	-	1,400
Tuakau	800	800	-	1,100	1,100	1,300	-	1,800	1,900	-	-	-	-	1,900
Huntly	400	-	-	400	200	-	-	200	500	-	-	-	-	500
Ngaruawahia	500	-	-	500	1,000	-	-	1,000	1,100	-	-	-	-	1,100
Total MDRS Area	***2,400***	***1,700***	***-***	***3,200***	***2,800***	***2,200***	***-***	***3,900***	***5,000***	***-***	***-***	***-***	***-***	***5,000***
Te Kauwhata	300	-	-	300	400	-	-	400	400	-	-	-	-	400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	70	-	-	70	80	-	-	-	-	80
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	100	-	-	100	10	-	-	10	100	-	-	-	-	100
Raglan	500	200	-	600	600	200	-	800	800	-	-	-	-	800
Total Other Urban Areas	***900***	***200***	***-***	***1,000***	***1,100***	***200***	***-***	***1,200***	***1,500***	***-***	***-***	***-***	***-***	***1,500***
District Total Urban	**3,400**	**1,800**	**-**	**4,200**	**3,800**	**2,400**	**-**	**5,100**	**6,500**	**-**	**-**	**-**	**-**	**6,500**

Source: M.E Waikato Residential Capacity Model, 2023.

Medium-Term: 2031

The estimated commercially feasible capacity is projected to increase significantly in the medium-term as the market for more intensive residential development becomes more established. Table 5-14 shows that there are an estimated 37,200 feasible dwellings potential development options within the medium-term across the district's main urban areas.

The feasible development capacity (30,600 dwellings) is concentrated into the four main urban areas where MDRS is applied. These areas account for over four-fifths of the district's total feasible capacity. These areas also contain over three-quarters of the district's feasible capacity within existing urban areas.

Within these areas, most of the feasible capacity occurs within Pookeno and Tuakau. Increases in feasible capacity in these locations occurs through a combination of detached and lower intensity-attached dwellings. More intensive medium-density attached dwellings are also projected to start to become feasible in these locations during the medium-term as the market is likely to start to become more established.

There are lower levels of feasible capacity within Huntly and Ngaaruawaahia. Feasibility in these areas is largely limited to detached dwellings in the medium-term.

The MDRS significantly increases the feasible capacity in the medium-term from that enabled under Scenario 1 where the MDRS is not applied. It increases the feasible capacity within the existing urban area by around one-third (33%; 2,900 dwellings), with larger relative increase within the greenfield areas (119%; 13,800 dwellings).

While there is a sizeable relative increase in feasible capacity, the level of uptake is still likely to occur in line with the size of market demand for these types of dwellings. The scale of the relative increase is a function of the types of locations and range of properties where this type of development could potentially occur. These more intensive development patterns generally begin to emerge in the most central and accessible locations. Their potential application is likely to become achievable within a wider range of suburban locations through time.

Table 5-14: Waikato District Medium-Term (2031) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 2 – PDP Decisions Version Base Zones with MDRS

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Medium-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	800	1,600	400	1,600	600	1,600	300	1,700	2,200	5,700	8,900	2,100	8,900	11,000
Tuakau	800	1,800	100	1,800	1,400	3,700	100	3,700	3,800	7,300	11,100	800	11,100	14,900
Huntly	500	-	-	500	500	-	-	500	800	300	-	-	300	1,100
Ngaruawahia	500	400	-	700	1,700	700	-	2,000	2,100	1,300	200	-	1,400	3,500
Total MDRS Area	***2,700***	***3,700***	***500***	***4,600***	***4,200***	***6,000***	***400***	***8,000***	***9,000***	***14,600***	***20,100***	***2,800***	***21,600***	***30,600***
Te Kauwhata	500	800	-	900	600	800	-	1,000	1,300	1,600	300	-	1,800	3,000
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	90	-	-	90	100	-	-	100	100	200	-	-	200	300
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	-	-	200	90	-	-	90	200	30	-	-	30	200
Raglan	500	300	-	700	700	400	-	1,000	1,200	600	-	-	600	1,700
Total Other Urban Areas	***1,300***	***1,100***	***-***	***1,900***	***1,500***	***1,200***	***-***	***2,200***	***2,700***	***3,700***	***300***	***-***	***3,900***	***6,600***
District Total Urban	**4,000**	**4,800**	**500**	**6,500**	**5,700**	**7,300**	**400**	**10,200**	**11,700**	**18,400**	**20,400**	**2,800**	**25,500**	**37,200**

Source: M.E Waikato Residential Capacity Model, 2023.

Long-Term: 2051

The estimated commercially feasible capacity is projected to increase substantially within the long-term. A wider range of development options are likely to become feasible across a more expansive area in the long-term within the district's main urban areas.

In total, there is an estimated feasible capacity of around 58,300 dwellings in the long-term (see Table 5-15). Around four-fifths (80%; 46,500 dwellings) of these are estimated to occur within the district's main urban areas where MDRS is applied. Similar to the medium-term, the largest shares of feasible capacity within these areas are projected to occur in Pookeno and Tuakau, with lower levels of feasibility within Huntly.

In the long-term, it is estimated that around 68% of the total plan enabled capacity is likely to become commercially feasible options for developers if available to the market. The feasibility of capacity is higher in the greenfield areas, where nearly all capacity is projected to become feasible in the long-term. Greenfield feasibility is highest within detached dwellings, with lower rates of feasibility in attached dwellings.

The share of feasible capacity within the existing urban areas is projected to be lower, at 50%, in the long-term. Feasibility within existing urban areas is generally lower due to the the additional costs of redevelopment on some sites.

The feasibility of more intensive dwelling typologies is projected to increase in the long-term as the market becomes more established. The modelling indicates that terraced housing or apartments is likely to become feasible within the main, higher value, urban areas of Pookeno and Tuakau, with smaller amounts of feasible capacity also within Ngaaruawaahia and Raglan.

Table 5-15: Waikato District Long-Term (2051) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 2 – PDP Decisions Version Base Zones with MDRS

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Long-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	1,400	2,500	2,100	2,600	1,500	3,300	1,900	3,400	3,800	6,700	10,400	10,700	10,800	14,600
Tuakau	1,100	2,700	2,200	3,000	2,300	6,300	3,500	6,900	7,200	7,400	11,300	11,200	11,300	18,400
Huntly	1,200	700	-	1,500	2,100	600	-	2,300	2,800	600	300	-	700	3,600
Ngaruawahia	1,100	2,400	900	2,600	3,100	6,800	700	6,900	7,100	1,800	2,800	1,600	2,800	9,900
Total MDRS Area	***4,800***	***8,200***	***5,200***	***9,700***	***9,100***	***16,900***	***6,100***	***19,500***	***20,900***	***16,500***	***24,700***	***23,500***	***25,600***	***46,500***
Te Kauwhata	700	1,500	800	1,700	1,100	3,200	500	3,300	3,400	2,300	2,200	1,300	2,600	6,000
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	100	-	-	100	200	-	-	200	200	600	-	-	600	800
Hopuhopu	-	-	-	-	-	-	-	-	-	100	-	-	100	100
Horotiu	200	-	-	200	200	-	-	200	300	300	-	-	300	600
Raglan	600	700	500	900	900	1,200	200	1,600	1,600	1,300	50	20	1,300	2,900
Total Other Urban Areas	***1,600***	***2,200***	***1,200***	***2,900***	***2,400***	***4,400***	***600***	***5,300***	***5,500***	***6,000***	***2,300***	***1,300***	***6,300***	***11,800***
District Total Urban	**6,400**	**10,400**	**6,500**	**12,500**	**11,500**	**21,400**	**6,700**	**24,800**	**26,400**	**22,500**	**27,000**	**24,900**	**31,900**	**58,300**

Source: M.E Waikato Residential Capacity Model, 2023.

Summary of Scenario 2 Feasible Capacity

The projected commercially feasible capacity options are summarised across the different time periods in the graphs below. They show the maximum projected feasible dwelling development options across all typologies for the existing urban (incl. infill or redevelopment), greenfield and total areas across each of the time periods. Figure 5-3 shows the capacity for Pookeno, Tuakau, Huntly and Ngaaruawaahia, while Figure 5-4 shows the capacity across all of the district's modelled urban areas.

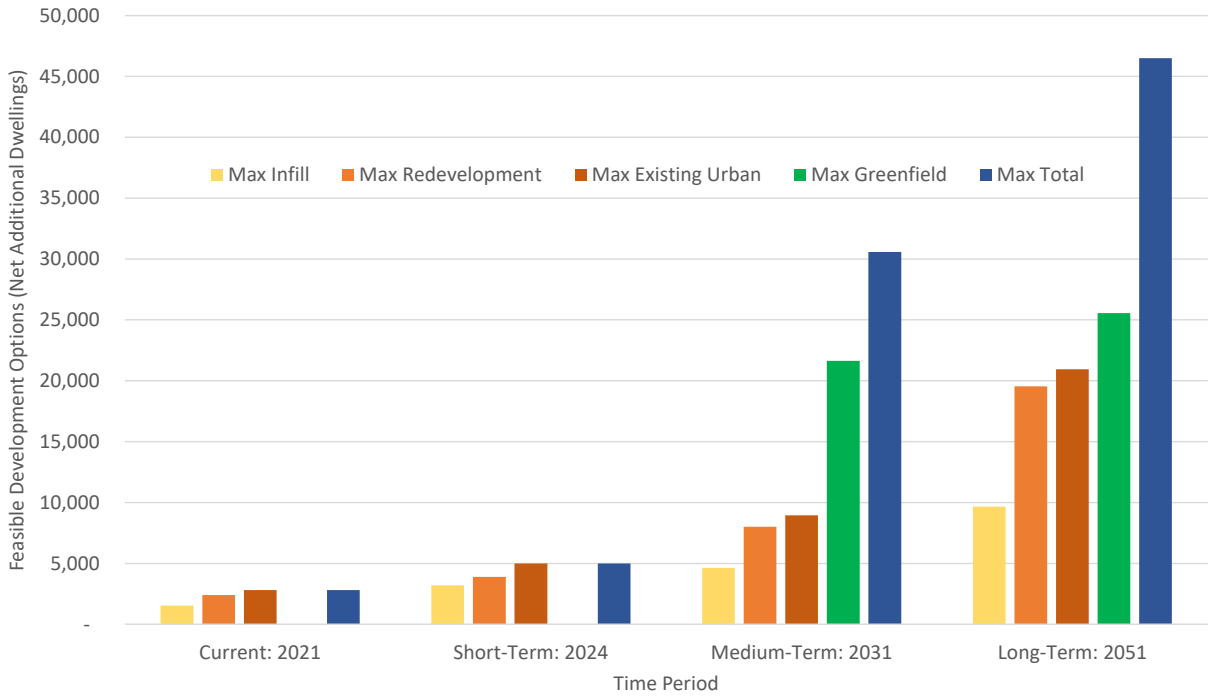
The graphs show that the feasible development capacity is projected to increase through time. There are large increases in capacity across both the existing urban and greenfield areas. Growth in feasible capacity within the short-term is mainly driven by the feasibility of detached dwellings on smaller sites. These are closer to the existing, well-established development patterns within the market.

Growth in capacity within the long-term is driven by a combination of an increase in the spatial extent of feasible development options, as well as increased yields on sites where more intensive attached dwelling development options become feasible. There are many sites that are feasible in the short to medium-term to develop as detached dwellings, that also become feasible to develop in attached dwellings during the long-term.

Similar to Scenario 1, the feasible greenfield capacity only occurs within the medium and long-term. This is due to the absence of infrastructure provision within the short-term.

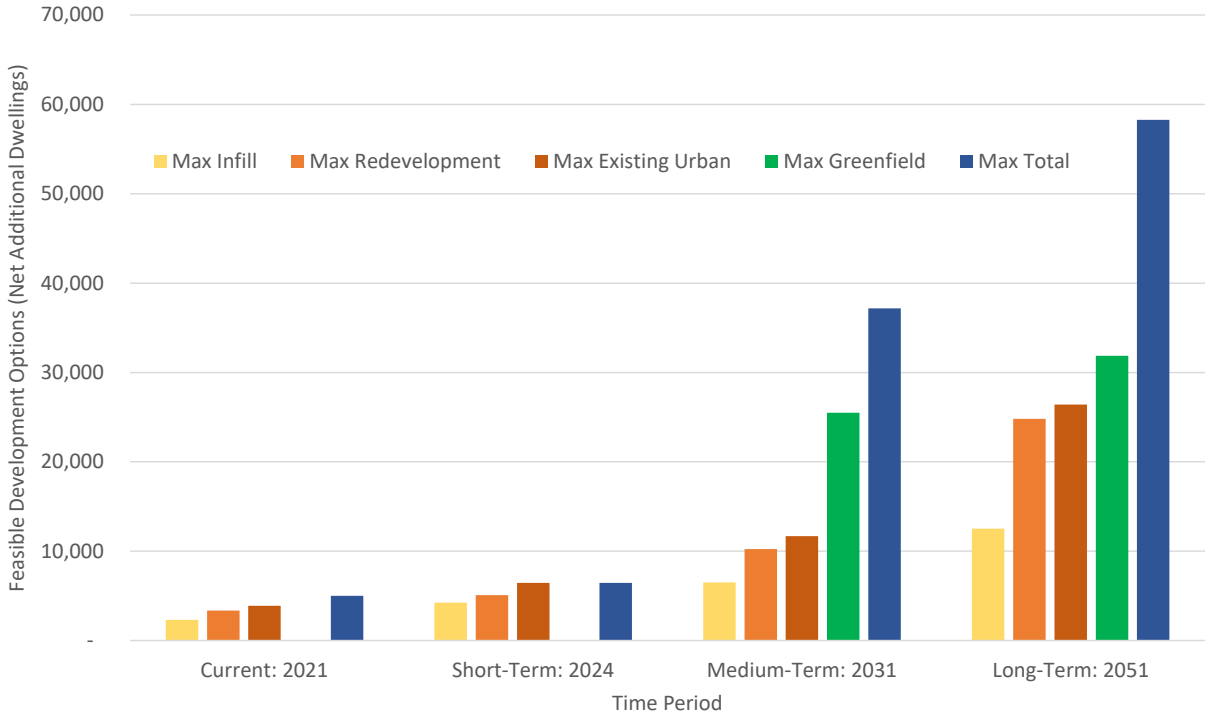
This capacity shows the potential development options that are likely to be feasible for the market. The level of take-up will be likely to correspond to the level of market demand for each type of development option through time.

Figure 5-3: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 2 – PDP Decisions Version Base Zones with MDRS (Pookeno, Tuakau, Huntly and Ngaaruawaahia)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

Figure 5-4: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 2 – PDP Decisions Version Base Zones with MDRS (All Urban Areas)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

5.4 Scenario 3: Modified Intensification Provisions (Notified Variation 3)

This section contains the capacity modelled with the application of Variation 3 as notified. It includes the application of the MDRS to the Variation 3 zoning structure, with the modification of intensification provisions through the application of the Urban Fringe qualifying matter. No other qualifying matters were notified that had an additional effect on dwelling capacity.

While the Urban Fringe qualifying matter is subsequently not being pursued by Waikato District Council, it has been modelled here as it was originally notified in Variation 3.

As set out in Section 2, the Variation 3 zoning structure is similar to that within the PDP Decisions Version. The application of the Urban Fringe qualifying matter retains the PDP Decisions Version densities across the GR Zone where MDRS would otherwise be applied. Consequently, the capacity under Scenario 3 is very similar to that under Scenario 1.

As such, this sub-section instead focuses on the differences in capacity enabled within this scenario to that in Scenario 1. These are mainly limited to the extension of the MR Zone within the four urban towns where

MDRS is applied, with some change in the feasibility of capacity with the change in provisions with the MR1 Zone.

5.4.1 Plan Enabled Capacity

The modelled plan enabled capacity for Scenario 3 is contained in Table 5-16 to Table 5-18. The tables show the net additional dwellings that would be enabled under the notified Variation 3, with greenfield infrastructure applied over the short to long-term.

Overall, Scenario 3 has a modelled plan enabled capacity for around 40,400 net additional dwellings in the short-term, increasing to 57,500 dwellings in the long-term with additional infrastructure provision within the greenfield areas.

The extension of the MR Zone in Variation 3 increases the enabled capacity by 6% to 9% from that modelled under Scenario 1. This equates to an additional 3,200 dwellings from that enabled under the PDP Decisions Version provisions.

The increase in capacity occurs within the existing urban areas of Tuakau, Huntly, Ngaaruawaahia, and to a minor scale in Pookeno. Increases in capacity occur through the greater density enabled across relatively small areas of residential land. The increases are sizeable relative to the land area due to the large differences in density between the GR and MR zones.

On balance, the plan enabled capacity under Scenario 3 is 23% to 33% lower than that enabled under Scenario 2 (unmodified application of MDRS to the PDP Decisions Version zones). The decrease in capacity occurs due to the application of the Urban Fringe qualifying matter across the GR Zone. This is partly offset by the small expansion to the MR Zone.

Scenario 3 enables a development pattern that concentrates enabled capacity into the central residential areas surrounding the commercial centres through the application of the MDR Zone. The MR1 and MR2 zones provide significant opportunity for intensification around the inner residential areas within the district's main urban towns.

Development within the outer residential existing urban and greenfield areas is limited to lower density development patterns. Under these provisions, greenfield expansion is enabled in a similar way to patterns of lower density outward expansion that have occurred around these towns over the past decade.

Table 5-16: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3 – Modified Intensification (Notified Variation 3) – Short-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Short-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	800	1,200	1,500	-	1,500	1,200	2,100	2,800	400	3,200	3,200	-	-	-	-	-	3,200
Tuakau	1,100	2,400	3,200	-	3,200	3,000	7,200	10,800	900	11,700	11,700	-	-	-	30	30	11,700
Huntly	900	1,500	1,900	-	1,900	2,300	3,900	5,400	900	6,300	6,300	-	-	-	-	-	6,300
Ngaruawahia	1,100	2,300	3,100	-	3,100	2,900	6,100	9,000	500	9,500	9,500	-	-	-	-	-	9,500
Total MDRS Area	***3,900***	***7,600***	***9,700***	***-***	***9,700***	***9,300***	***19,200***	***28,100***	***2,600***	***30,700***	***30,700***	***-***	***-***	***-***	***30***	***30***	***30,700***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	-	-	-	30	30	5,400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	200	200	200	-	200	200	200	200	200	500	500	-	-	-	-	-	500
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	-	-	-	-	-	500
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	-	-	-	-	-	3,300
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***-***	***-***	***-***	***30***	***30***	***9,700***
District Total Urban	**6,300**	**11,000**	**13,900**	**-**	**13,900**	**13,500**	**25,600**	**36,500**	**3,800**	**40,300**	**40,300**	**-**	**-**	**-**	**60**	**60**	**40,400**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-17: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3 – Modified Intensification (Notified Variation 3) – Medium-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Medium-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	800	1,200	1,500	-	1,500	1,200	2,100	2,800	400	3,200	3,200	3,100	3,600	4,000	100	4,100	7,400
Tuakau	1,100	2,400	3,200	-	3,200	3,000	7,200	10,800	900	11,700	11,700	3,600	3,600	3,600	400	3,900	15,600
Huntly	900	1,500	1,900	-	1,900	2,300	3,900	5,400	900	6,300	6,300	300	500	600	-	600	6,900
Ngaruawahia	1,100	2,300	3,100	-	3,100	2,900	6,100	9,000	500	9,500	9,500	700	900	1,000	-	1,000	10,500
Total MDRS Area	***3,900***	***7,600***	***9,700***	***-***	***9,700***	***9,300***	***19,200***	***28,100***	***2,600***	***30,700***	***30,700***	***7,700***	***8,500***	***9,200***	***500***	***9,700***	***40,300***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	1,800	1,900	2,100	400	2,400	7,800
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	200	200	200	-	200	600
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	700	700	700	-	700	4,000
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***4,400***	***4,500***	***4,600***	***400***	***5,000***	***14,700***
District Total Urban	**6,300**	**11,000**	**13,900**	**-**	**13,900**	**13,500**	**25,600**	**36,500**	**3,800**	**40,300**	**40,300**	**12,100**	**13,000**	**13,800**	**800**	**14,700**	**55,000**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-18: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3 – Modified Intensification (Notified Variation 3) – Long-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Long-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	800	1,200	1,500	-	1,500	1,200	2,100	2,800	400	3,200	3,200	3,600	4,000	4,500	100	4,600	7,800
Tuakau	1,100	2,400	3,200	-	3,200	3,000	7,200	10,800	900	11,700	11,700	3,600	3,600	3,600	400	3,900	15,600
Huntly	900	1,500	1,900	-	1,900	2,300	3,900	5,400	900	6,300	6,300	300	500	600	-	600	6,900
Ngaruawahia	1,100	2,300	3,100	-	3,100	2,900	6,100	9,000	500	9,500	9,500	900	1,100	1,200	-	1,200	10,700
Total MDRS Area	***3,900***	***7,600***	***9,700***	***-***	***9,700***	***9,300***	***19,200***	***28,100***	***2,600***	***30,700***	***30,700***	***8,400***	***9,200***	***9,900***	***500***	***10,400***	***41,000***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	2,300	2,500	2,700	400	3,000	8,400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	600	600	600	-	600	1,100
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	100	100	100	-	100	100
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	1,300	1,300	1,300	-	1,300	4,600
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***6,100***	***6,200***	***6,400***	***400***	***6,800***	***16,400***
District Total Urban	**6,300**	**11,000**	**13,900**	**-**	**13,900**	**13,500**	**25,600**	**36,500**	**3,800**	**40,300**	**40,300**	**14,500**	**15,400**	**16,300**	**800**	**17,200**	**57,500**

Source: M.E Waikato Residential Capacity Model, 2023.

5.4.2 Commercially Feasible Capacity

The following sub-sections contain the estimated areas of plan enabled capacity that are likely to form potential commercially feasible development options for developers in the current market as well as the short, medium and long-term under Scenario 3. Importantly, the capacity should not be confused with growth – it is a measure of the potential capacity, some of which is likely to get taken up by the market with growth. Refer to the 2021 HBA for a more detailed description of the measure of commercially feasible capacity.

Current Market: 2021

Table 5-19 shows that there is a modelled estimated currently commercially feasible capacity of 3,300 dwellings as potential development options under the notified Variation 3. This amounts to around 8% of the plan enabled capacity.

Over two-thirds of the currently commercially feasible capacity is contained within the main urban towns where the MDRS is applied. These towns have a combined feasible capacity of 2,300 dwellings. Feasibility is higher withing Pookeno, Tuakau and Ngaaruawaahia, and lower within Huntly.

The feasible capacity increases by 4% from that enabled under Scenario 1. This occurs within the main urban towns where MDRS is applied as a result of the expansion of the MR Zone. This zone has higher potential yields, which increase the feasibility of intensification options within the existing urban area.

The feasibility within other towns has decreased slightly as a result of the change from MR Zone to MR1 Zone. The latter has a lower permitted site coverage which reduces the potential dwelling size, therefore slightly lowering feasibility.

Table 5-19: Waikato District Current Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3 – Modified Intensification (Notified Variation 3)

	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				
LEVEL	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	200	300	-	400	300	300	-	500	600	-	-	-	-	600
Tuakau	300	400	-	500	500	600	-	800	900	-	-	-	-	900
Huntly	90	-	-	90	100	-	-	100	200	-	-	-	-	200
Ngaruawahia	200	-	-	200	500	-	-	500	600	-	-	-	-	600
Total MDRS Area	***800***	***700***	**-**	***1,200***	***1,400***	***1,000***	**-**	***1,900***	***2,300***	**-**	**-**	**-**	**-**	***2,300***
Te Kauwhata	200	-	-	200	200	-	-	200	300	-	-	-	-	300
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	60	-	-	60	70	-	-	-	-	70
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Raglan	400	100	-	500	500	80	-	600	700	-	-	-	-	700
Total Other Urban Areas	***700***	***100***	**-**	***800***	***800***	***80***	**-**	***800***	***1,000***	**-**	**-**	**-**	**-**	***1,000***
District Total Urban	**1,600**	**800**	**-**	**2,000**	**2,100**	**1,000**	**-**	**2,700**	**3,300**	**-**	**-**	**-**	**-**	**3,300**

Source: M.E Waikato Residential Capacity Model, 2023.

Short-Term: 2024

The estimated commercially feasible development options are projected to increase to around 4,900 dwellings under the notified Variation 3 in the short-term (see Table 5-20). This equates to around 12% of the plan enabled capacity.

Similar to the current market, the short-term feasible capacity is dominated in most locations by detached dwellings. These are more similar to the existing patterns of development within the district's main urban areas.

The short-term feasible capacity is around 5% higher under this scenario than Scenario 1. This occurs due to the expansion of the MR Zone. It is around 25% lower than that enabled under Scenario 2 where the MDRS is applied, without modification, across the wider suburban area (GR and Future Urban zones).

Table 5-20: Waikato District Short-Term (2024) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3 – Modified Intensification (Notified Variation 3)

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	300	400	-	600	300	500	-	600	800	-	-	-	-	800
Tuakau	400	600	-	700	700	1,300	-	1,400	1,600	-	-	-	-	1,600
Huntly	200	-	-	200	200	-	-	200	300	-	-	-	-	300
Ngaruawahia	400	-	-	400	700	-	-	700	800	-	-	-	-	800
Total MDRS Area	***1,300***	***1,000***	**-**	***1,900***	***1,800***	***1,700***	**-**	***2,900***	***3,500***	**-**	**-**	**-**	**-**	***3,500***
Te Kauwhata	300	-	-	300	300	-	-	300	400	-	-	-	-	400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	70	-	-	70	80	-	-	-	-	80
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	100	-	-	100	10	-	-	10	100	-	-	-	-	100
Raglan	500	200	-	600	600	90	-	700	800	-	-	-	-	800
Total Other Urban Areas	***900***	***200***	**-**	***1,000***	***1,000***	***90***	**-**	***1,000***	***1,400***	**-**	**-**	**-**	**-**	***1,400***
District Total Urban	**2,200**	**1,200**	**-**	**3,000**	**2,800**	**1,800**	**-**	**3,900**	**4,900**	**-**	**-**	**-**	**-**	**4,900**

Source: M.E Waikato Residential Capacity Model, 2023.

Medium-Term: 2031

The estimated feasible capacity is projected to increase in the medium-term to around 20,700 dwellings development opportunity (see Table 5-21). This amounts to over one-third (38%) of the plan-enabled capacity.

The growth in feasible capacity within the medium-term is projected to occur in several ways. These include an increase in the location and type of development opportunities within the existing urban environment and the increase in greenfield areas that are feasible to develop with the supply of infrastructure networks in the medium-term.

The modelling indicates that the market for medium density development is likely to become more feasible through time in the medium-term. This increases the capacity within the existing urban area through a combination of increased yields on sites that were earlier feasible to develop as detached dwellings, as well as a greater viability of this type of development across a wider geographic area.

The medium-term feasible capacity is slightly higher (+1%; 285 dwellings) under this scenario than Scenario 1. This occurs due to the expansion of the MR Zone. It is around 44% lower than that enabled under Scenario 2 where the MDRS is applied, without modification, across the wider suburban area (GR and Future Urban zones). The share of plan enabled capacity that represents feasible development options under Scenario 3 is similar to that under Scenario 1. It is lower than that under Scenario 2, where feasibility is increased through higher potential yields across the GR Zone.

Table 5-21: Waikato District Medium-Term (2031) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3 – Modified Intensification (Notified Variation 3)

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Medium-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	300	500	-	700	300	900	-	1,000	1,100	3,100	900	-	3,600	4,600
Tuakau	500	1,200	-	1,400	1,000	3,200	-	3,500	3,500	3,300	300	-	3,300	6,900
Huntly	300	-	-	300	300	-	-	300	400	200	-	-	200	600
Ngaruawahia	400	300	-	600	1,200	700	-	1,600	1,600	600	200	-	700	2,300
Total MDRS Area	***1,500***	***2,100***	***-***	***2,900***	***2,900***	***4,800***	***-***	***6,400***	***6,700***	***7,200***	***1,400***	***-***	***7,800***	***14,500***
Te Kauwhata	500	800	-	900	600	600	-	900	1,200	1,500	60	-	1,500	2,800
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	90	-	-	90	100	-	-	100	100	200	-	-	200	300
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	-	-	200	90	-	-	90	200	30	-	-	30	200
Raglan	500	300	-	700	700	200	-	900	1,100	600	-	-	600	1,700
Total Other Urban Areas	***1,300***	***1,100***	***-***	***1,900***	***1,500***	***900***	***-***	***1,900***	***2,600***	***3,700***	***60***	***-***	***3,700***	***6,200***
District Total Urban	**2,800**	**3,200**	**-**	**4,800**	**4,400**	**5,700**	**-**	**8,300**	**9,300**	**10,900**	**1,400**	**-**	**11,500**	**20,700**

Source: M.E Waikato Residential Capacity Model, 2023.

Long-Term: 2051

The share of plan-enabled capacity that is projected to be commercially feasible development options is projected to increase further in the long-term (see Table 5-22). There is an estimated feasible capacity of 35,500 dwellings in Waikato district's main urban areas under the notified Variation 3 in the long-term. This amounts to between half and two-thirds of the capacity enabled under the proposed provisions.

The projected commercially feasible capacity is estimated to be around 2% higher under notified Variation 3 than the PDP Decisions Version provisions.

The market for medium density development is projected to become more established over the long-term within Waikato district's urban areas. The modelling indicates that there is a sizeable increase in feasible capacity across both detached and attached dwellings over the long-term. Detached dwellings are feasible in most locations, while attached dwellings are more limited to higher value and larger locations, with smaller amounts of capacity feasible in lower value areas. The higher yield through attached dwelling typologies mean they account for the largest proportion of feasibly capacity within the existing urban areas.

The proportion of attached dwellings is higher within existing urban areas than in greenfield areas. This is due to the MR Zone provisions within existing urban areas where higher yields can be achieved with attached dwellings. Development of attached dwellings within greenfield areas will instead occur mainly at the same density as detached dwellings, meaning that greenfield areas are likely to continue to develop at lower densities in the form of detached dwellings under this scenario.

Table 5-22: Waikato District Long-Term (2051) Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3 – Modified Intensification (Notified Variation 3)

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Long-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	400	800	500	900	500	1,500	400	1,600	1,700	3,600	4,000	1,300	4,400	6,100
Tuakau	800	2,100	1,700	2,500	1,800	5,800	2,400	6,600	6,800	3,600	3,300	600	3,600	10,400
Huntly	500	300	-	700	900	500	-	1,200	1,300	300	200	-	500	1,800
Ngaruawahia	600	1,700	600	1,900	2,000	5,000	10	5,300	5,400	900	400	10	1,100	6,500
Total MDRS Area	***2,300***	***4,900***	***2,700***	***6,100***	***5,300***	***12,800***	***2,800***	***14,700***	***15,200***	***8,400***	***8,000***	***1,800***	***9,600***	***24,800***
Te Kauwhata	700	1,500	800	1,700	1,100	2,200	400	2,300	2,500	2,300	2,200	1,400	2,600	5,100
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	100	-	-	100	200	-	-	200	200	600	-	-	600	800
Hopuhopu	-	-	-	-	-	-	-	-	-	100	-	-	100	100
Horotiu	200	-	-	200	200	-	-	200	300	300	-	-	300	600
Raglan	600	700	500	900	800	1,100	200	1,400	1,500	1,300	50	20	1,300	2,800
Total Other Urban Areas	***1,600***	***2,200***	***1,200***	***2,900***	***2,300***	***3,200***	***700***	***4,100***	***4,400***	***6,000***	***2,300***	***1,400***	***6,300***	***10,700***
District Total Urban	**3,900**	**7,100**	**3,900**	**8,900**	**7,600**	**16,100**	**3,400**	**18,800**	**19,700**	**14,400**	**10,200**	**3,200**	**15,900**	**35,500**

Source: M.E Waikato Residential Capacity Model, 2023.

Summary of Scenario 3 Feasible Capacity

The projected commercially feasible capacity options are summarised across the different time periods in the graphs below. Figure 5-5 summarises the feasible capacity across the four main urban areas where MDRS is applied (Pookeno, Tuakau, Huntly and Ngaaruawaahia) and Figure 5-6 for all of the district's urban areas combined. It shows the maximum projected feasible dwelling development options across all typologies for the existing urban (incl. infill or redevelopment), greenfield and total areas across each of the time periods.

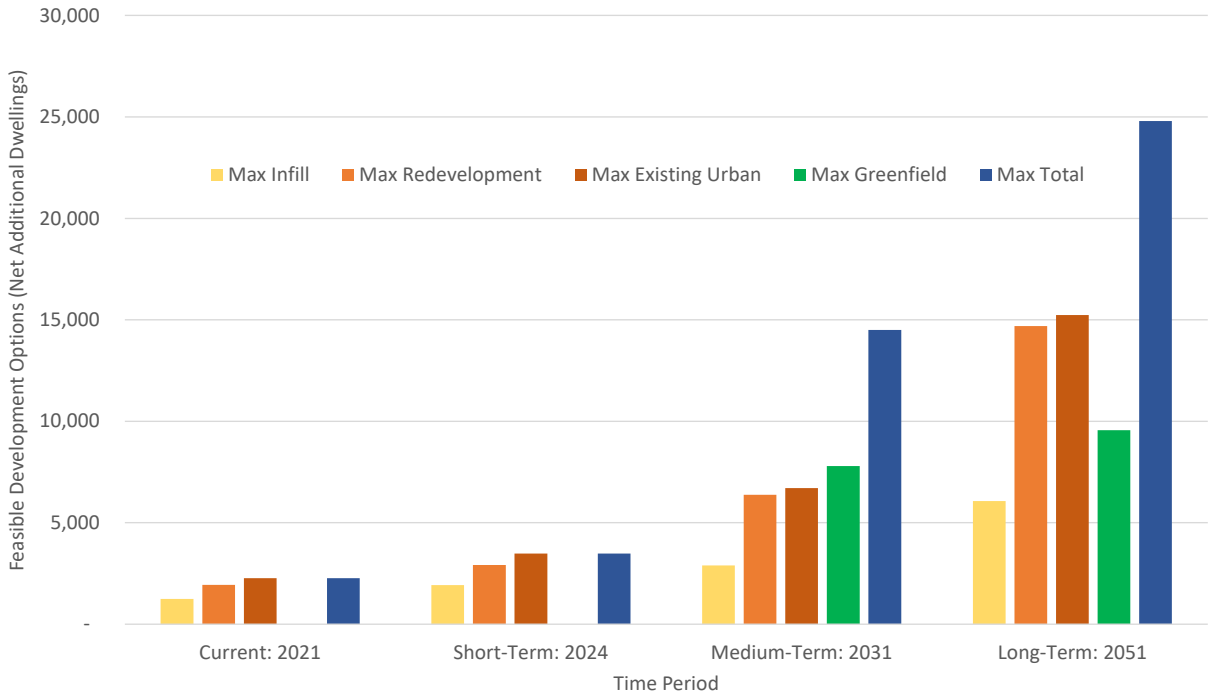
The graphs show that the feasible development capacity is projected to increase through time. There are large increases in capacity across both the existing urban and greenfield areas.

The greenfield projected long-term feasible capacity is lower under notified Variation 3 (and Scenario 1) than the unmodified application of MDRS provisions in Scenario 2. This is because the greenfield yields under this scenario are predominantly at the enabled lower density of one dwelling per 450m2 land area. With the application of MDRS, the density increases to up to three dwellings per site, increasing the potential yields of greenfield areas.

Growth in capacity within the long-term is driven by a combination of an increase in the spatial extent of feasible development options, as well as increased yields on sites where more intensive attached dwelling development options become feasible. The medium density dwelling options are projected to become more feasible through time. There are many sites that are feasible in the short to medium-term to develop as detached dwellings, that also become feasible to develop in attached dwellings during the long-term.

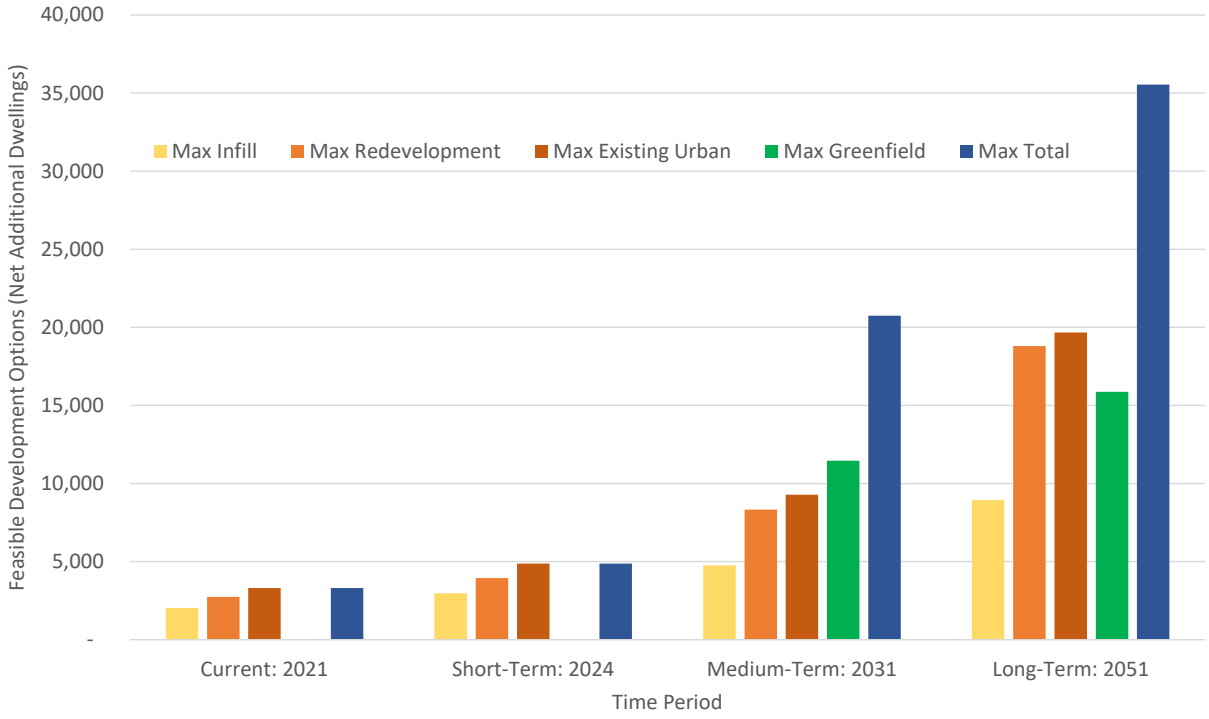
Similar to Scenarios 1 and 2, this capacity shows the potential development options that are likely to be feasible for the market. The level of take-up will be likely to correspond to the level of market demand for each type of development option through time.

Figure 5-5: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 3 –Modified Intensification (Notified Variation 3) (Pookeno, Tuakau, Huntly and Ngaaruawaahia)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

Figure 5-6: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 3 –Modified Intensification (Notified Variation 3) (All Urban Areas)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

5.5 Scenario 3a: Modified Intensification Provisions (Variation 3 Excluding Urban Fringe)

This section contains the modelled plan enabled and projected commercial feasible capacity for Variation 3 as notified, but excluding the Urban Fringe qualifying matter. The notified Variation 3 zone structure forms the input for this modelled scenario.

The MDRS are applied across all urban residential zones within the four main urban towns of Pookeno, Tuakau, Huntly and Ngaaruawaahia. Under this scenario, these areas therefore have intensification enabled through the outer suburban and greenfield areas in addition to the intensification already enabled within the MR Zone areas.

The MDRS are not applied in the district's other urban areas. However, many of these areas do have a significant level of intensification enabled within inner areas through the MR Zone where the provisions align with the MDRS.

This scenario has the highest level of enabled capacity of the scenarios proposed by WDC. When compared to the PDP Decisions Version provisions (Scenario 1), this scenario shows the combined effect of increased

densities across the outer suburban and greenfield areas, together with an upzoning of small areas to MR Zone within the main towns.

The densities modelled within this scenario are very similar to those modelled under Scenario 2, which instead applies the MDRS across the PDP Decisions Version zoning structure. The only difference between the scenarios occurs through the small expansions of the MR Zone area within the main urban towns where MDRS is applied.

The capacity difference generated by the MR Zone expansion is lower than that between Scenarios 1 and 3 as the density differential between the MR Zone and the GR Zone is substantially reduced when the MDRS is applied to the GR Zone. This is set out as follows:

- Under Scenarios 3 and 3a, the new areas of MR Zone have a modelled density of up to three dwellings per 200m2 land area.
- The same areas (with a GR Zone under Scenario 2) would instead have a density of up to 3 dwellings per 450m2 under Scenario 2 where MDRS is applied. This would mean the density on these properties in Scenario 3a (up to 3 dwellings per 200m2) would be over double that in Scenario 2 (up to 3 dwellings per 450m2).
- The same areas (with a GR Zone under Scenario 1) would instead have a density of only 1 dwelling per 450m2 under Scenario 1 where MDRS is not applied. This would mean the density on these properties in Scenario 3 (up to 3 dwellings per 200m2) would be over six times that in Scenario 1 (only 1 dwelling per 450m2).

As a result, there is much less difference in density between the inner and outer residential areas within Scenario 3a than either Scenario 1 or Scenario 3 where the GR and Future Urban Zones are restricted to the a density of one dwelling per 450m2. Although there is still a difference in plan enabled density, the density at which this is taken up by the market is likely to be less differentiated between the zones that set out within the planning provisions. This scenario is therefore more likely to result in a lower concentration of residential growth around the commercial centres, with more dispersed patterns of growth across the full current and future urban extent.

5.5.1 Plan Enabled Capacity

The modelled plan enabled capacity for Scenario 3a is contained in Table 5-23 to Table 5-25. The tables show the net additional dwellings that would be enabled under the notified Variation 3 (excluding the Urban Fringe), with greenfield infrastructure applied over the short to long-term.

Overall, Scenario 3a has a modelled plan enabled capacity for around 54,800 net additional dwellings in the short-term, increasing to 88,100 dwellings in the long-term with additional infrastructure provision within the greenfield areas.

The extension of the MR Zone in the Variation 3 zone structure increases the enabled capacity by 3% to 4% from that modelled under Scenario 2. This equates to an additional 2,300 dwellings from that enabled under the MDRS applied to the PDP Decisions Version zones.

The increase in capacity occurs within the existing urban areas of Tuakau, Huntly, Ngaaruawaahia, and to a minor scale in Pookeno. Increases in capacity occur through the greater density enabled across relatively

small areas of residential land. The increases are sizeable relative to the land area due to the differences in density between the GR and MR zones as set out above.

This scenario results in a large increase in capacity from the baseline PDP Decisions Version provisions. It increases capacity by between 48% (short-term) and 62% (long-term). This equates to an increase of a net additional 17,700 to 33,900 dwellings.

Table 5-23: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter) – Short-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Short-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	1,700	2,600	2,900	-	2,900	3,700	5,500	6,300	400	6,700	6,800	-	-	-	-	-	6,800
Tuakau	1,400	3,100	3,800	-	3,800	3,800	8,500	12,100	900	13,000	13,000	-	-	-	30	30	13,000
Huntly	1,700	3,000	3,400	-	3,400	6,200	9,800	11,300	900	12,100	12,300	-	-	-	-	-	12,300
Ngaruawahia	1,600	3,300	3,300	-	4,100	5,300	9,500	9,000	500	12,900	13,000	-	-	-	-	-	13,000
Total MDRS Area	***6,500***	***12,100***	***13,400***	***-***	***14,300***	***19,000***	***33,200***	***38,700***	***2,600***	***44,700***	***45,100***	***-***	***-***	***-***	***30***	***30***	***45,200***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	-	-	-	30	30	5,400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	200	200	200	-	200	200	200	200	200	500	500	-	-	-	-	-	500
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	-	-	-	-	-	500
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	-	-	-	-	-	3,300
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***-***	***-***	***-***	***30***	***30***	***9,700***
District Total Urban	**8,900**	**15,500**	**17,600**	**-**	**18,400**	**23,100**	**39,600**	**47,200**	**3,800**	**54,300**	**54,800**	**-**	**-**	**-**	**60**	**60**	**54,800**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-24: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter) – Medium-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Medium-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	1,700	2,600	2,900	-	2,900	3,700	5,500	6,300	400	6,700	6,800	5,700	8,900	9,300	100	9,400	16,300
Tuakau	1,400	3,100	3,800	-	3,800	3,800	8,500	12,100	900	13,000	13,000	7,400	11,300	11,300	400	11,600	24,600
Huntly	1,700	3,000	3,400	-	3,400	6,200	9,800	11,300	900	12,100	12,300	600	900	1,100	-	1,100	13,400
Ngaruawahia	1,600	3,300	3,300	-	4,100	5,300	9,500	9,000	500	12,900	13,000	1,300	2,100	1,000	-	2,200	15,200
Total MDRS Area	***6,500***	***12,100***	***13,400***	***-***	***14,300***	***19,000***	***33,200***	***38,700***	***2,600***	***44,700***	***45,100***	***15,100***	***23,100***	***22,700***	***500***	***24,300***	***69,400***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	1,800	1,900	2,100	400	2,400	7,800
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	200	200	200	-	200	600
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	700	700	700	-	700	4,000
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***4,400***	***4,500***	***4,600***	***400***	***5,000***	***14,700***
District Total Urban	**8,900**	**15,500**	**17,600**	**-**	**18,400**	**23,100**	**39,600**	**47,200**	**3,800**	**54,300**	**54,800**	**19,400**	**27,600**	**27,300**	**800**	**29,300**	**84,100**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-25: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter) – Long-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Long-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	1,700	2,600	2,900	-	2,900	3,700	5,500	6,300	400	6,700	6,800	6,700	10,400	10,800	100	10,900	17,800
Tuakau	1,400	3,100	3,800	-	3,800	3,800	8,500	12,100	900	13,000	13,000	7,400	11,300	11,300	400	11,600	24,600
Huntly	1,700	3,000	3,400	-	3,400	6,200	9,800	11,300	900	12,100	12,300	600	900	1,100	-	1,100	13,400
Ngaruawahia	1,600	3,300	3,300	-	4,100	5,300	9,500	9,000	500	12,900	13,000	1,800	2,800	1,200	-	3,000	16,000
Total MDRS Area	***6,500***	***12,100***	***13,400***	***-***	***14,300***	***19,000***	***33,200***	***38,700***	***2,600***	***44,700***	***45,100***	***16,500***	***25,400***	***24,400***	***500***	***26,600***	***71,700***
Te Kauwhata	1,100	1,800	2,300	-	2,300	2,100	3,600	5,100	300	5,300	5,300	2,300	2,500	2,700	400	3,000	8,400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	600	600	600	-	600	1,100
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	100	100	100	-	100	100
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	900	1,200	1,400	-	1,400	1,500	2,200	2,800	500	3,300	3,300	1,300	1,300	1,300	-	1,300	4,600
Total Other Urban Areas	***2,400***	***3,400***	***4,200***	***-***	***4,200***	***4,100***	***6,400***	***8,500***	***1,200***	***9,600***	***9,600***	***6,100***	***6,200***	***6,400***	***400***	***6,800***	***16,400***
District Total Urban	**8,900**	**15,500**	**17,600**	**-**	**18,400**	**23,100**	**39,600**	**47,200**	**3,800**	**54,300**	**54,800**	**22,600**	**31,600**	**30,800**	**800**	**33,400**	**88,100**

Source: M.E Waikato Residential Capacity Model, 2023.

5.5.2 Commercially Feasible Capacity

The following sub-sections contain the estimated areas of plan enabled capacity that are likely to form potential commercially feasible development options for developers in the current market as well as the short, medium and long-term under Scenario 3a. Importantly, the capacity should not be confused with growth – it is a measure of the potential capacity, some of which is likely to get taken up by the market with growth. Refer to the 2021 HBA for a more detailed description of the measure of commercially feasible capacity.

Current Market: 2021

Table 5-26 shows that there is a modelled estimated currently commercially feasible capacity of around 4,000 dwellings as potential development options under Variation 3 without the Urban Fringe qualifying matter. This amounts to around 7% of the plan enabled capacity.

The feasible capacity under Scenario 3a is very similar to that in Scenario 2, with a small increase of 100 dwellings occurring as a result of the expansion of the MR Zone within the main urban towns.

Under this scenario, there is an increase in feasible capacity of 25% from that under Scenario 1, equating to a net increase of around 800 dwellings in the current market. Part of this increase is likely to occur through an increase in the yields on sites which are estimated to be currently feasible under both modelled scenarios.

Table 5-26: Waikato District Current Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter)

	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				
LEVEL	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	400	600	-	700	400	600	-	700	900	-	-	-	-	900
Tuakau	400	500	-	600	600	700	-	900	1,100	-	-	-	-	1,100
Huntly	10	-	-	10	50	-	-	50	60	-	-	-	-	60
Ngaruawahia	300	-	-	300	800	-	-	800	900	-	-	-	-	900
Total MDRS Area	***1,100***	***1,100***	***-***	***1,600***	***1,800***	***1,300***	***-***	***2,500***	***2,900***	***-***	***-***	***-***	***-***	***2,900***
Te Kauwhata	200	-	-	200	200	-	-	200	300	-	-	-	-	300
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	60	-	-	60	70	-	-	-	-	70
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Raglan	400	100	-	500	500	80	-	600	700	-	-	-	-	700
Total Other Urban Areas	***700***	***100***	***-***	***800***	***800***	***80***	***-***	***800***	***1,000***	***-***	***-***	***-***	***-***	***1,000***
District Total Urban	**1,800**	**1,200**	**-**	**2,400**	**2,600**	**1,400**	**-**	**3,300**	**4,000**	**-**	**-**	**-**	**-**	**4,000**

Source: M.E Waikato Residential Capacity Model, 2023.

Short-Term: 2024

The estimated commercially feasible development options are projected to increase to around 6,500 dwellings under Scenario 3a in the short-term (see Table 5-27). This equates to around 12% of the plan enabled capacity.

The feasible capacity under Scenario 3a is very similar to that in Scenario 2, with a small increase of 100 dwellings occurring as a result of the expansion of the MR Zone within the main urban towns. This only 1% greater than the capacity enabled within Scenario 2.

Under this scenario, the increase in feasible capacity from that of the PDP Decisions Version provisions (Scenario 1) increases in the short-term from the current market. In the short-term, the feasible capacity is 40% higher (1,900 dwellings) under this scenario than Scenario 1.

The larger relative increases in feasible capacity are a combination of two factors. Firstly, the difference in densities between the scenarios means that as more sites become feasible through time under each scenario, the capacity increases at a greater rate under Scenario 3a due to the higher yields. Secondly, it is likely that more sites will become feasible under this scenario due to the higher enabled yields.

Table 5-27: Waikato District Short-Term Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter)

	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				
LEVEL	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	800	900	-	1,200	500	900	-	900	1,400	-	-	-	-	1,400
Tuakau	800	900	-	1,200	1,100	1,500	-	2,000	2,100	-	-	-	-	2,100
Huntly	400	-	-	400	200	-	-	200	500	-	-	-	-	500
Ngaruawahia	500	-	-	500	1,000	-	-	1,000	1,100	-	-	-	-	1,100
Total MDRS Area	***2,400***	***1,800***	***-***	***3,300***	***2,800***	***2,400***	***-***	***4,100***	***5,100***	***-***	***-***	***-***	***-***	***5,100***
Te Kauwhata	300	-	-	300	300	-	-	300	400	-	-	-	-	400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	70	-	-	70	80	-	-	-	-	80
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	100	-	-	100	10	-	-	10	100	-	-	-	-	100
Raglan	500	200	-	600	600	90	-	700	800	-	-	-	-	800
Total Other Urban Areas	***900***	***200***	***-***	***1,000***	***1,000***	***90***	***-***	***1,000***	***1,400***	***-***	***-***	***-***	***-***	***1,400***
District Total Urban	**3,400**	**1,900**	**-**	**4,300**	**3,800**	**2,400**	**-**	**5,100**	**6,500**	**-**	**-**	**-**	**-**	**6,500**

Source: M.E Waikato Residential Capacity Model, 2023.

Medium-Term: 2031

The estimated feasible capacity is projected to increase substantially in the medium-term to around 37,300 dwellings development opportunity (see Table 5-28). This amounts to over one-third (44%) of the plan-enabled capacity.

The growth in feasible capacity within the medium-term is projected to occur in several ways. These include an increase in the location and type of development opportunities within the existing urban environment and the increase in greenfield areas that are feasible to develop with the supply of infrastructure networks in the medium-term.

Similar to Scenario 2, there is large growth in this scenario in the medium-term. This is due to growth in the market size for more intensive dwellings. It is important to note that the size of the feasible capacity is largely a function of the scale of the plan enabled development capacity. The level of take up of this capacity is likely to be much lower and in line with the level of market demand.

Table 5-28: Waikato District Medium-Term Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter)

	INFILL				REDEVELOPMENT					GREENFIELD (Medium-Term Infrastructure)				
LEVEL	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	800	1,600	400	1,600	600	1,600	300	1,700	2,200	5,700	8,900	2,100	8,900	11,000
Tuakau	800	1,900	100	1,900	1,400	4,200	80	4,200	4,300	7,300	11,100	800	11,100	15,300
Huntly	500	-	-	500	600	-	-	600	800	300	-	-	300	1,100
Ngaruawahia	500	400	-	700	1,700	700	-	2,000	2,100	1,300	200	-	1,400	3,500
Total MDRS Area	***2,700***	***3,800***	***500***	***4,800***	***4,300***	***6,500***	***400***	***8,500***	***9,400***	***14,600***	***20,100***	***2,800***	***21,600***	***31,000***
Te Kauwhata	500	800	-	900	600	600	-	900	1,200	1,500	60	-	1,500	2,800
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	90	-	-	90	100	-	-	100	100	200	-	-	200	300
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	-	-	200	90	-	-	90	200	30	-	-	30	200
Raglan	500	300	-	700	700	200	-	900	1,100	600	-	-	600	1,700
Total Other Urban Areas	***1,300***	***1,100***	***-***	***1,900***	***1,500***	***900***	***-***	***1,900***	***2,600***	***3,700***	***60***	***-***	***3,700***	***6,200***
District Total Urban	**4,000**	**4,900**	**500**	**6,600**	**5,700**	**7,300**	**400**	**10,400**	**12,000**	**18,300**	**20,200**	**2,800**	**25,300**	**37,300**

Source: M.E Waikato Residential Capacity Model, 2023.

Long-Term: 2051

The share of plan-enabled capacity that is projected to be commercially feasible development options is projected to increase further in the long-term (see Table 5-29). There is an estimated feasible capacity of 58,400 dwellings in Waikato district's main urban areas under Scenario 3a in the long-term.

Together with Scenario 2, the projected feasible capacity under this scenario is the largest of the WDC-proposed scenarios, and amounts to around two-thirds of the capacity enabled under the proposed provisions.

The difference in capacity to Scenario 1 is projected to continue to increase into the long-term. It is estimated to be around two-thirds higher than that feasible under Scenario 1 in the long-term (23,500 dwellings).

Table 5-29: Waikato District Long-Term Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter)

	INFILL				REDEVELOPMENT					GREENFIELD (Long-Term Infrastructure)				
LEVEL	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	1,400	2,500	2,100	2,600	1,500	3,300	1,900	3,400	3,800	6,700	10,400	10,700	10,800	14,600
Tuakau	1,100	2,800	2,500	3,300	2,400	7,100	3,600	7,800	8,100	7,400	11,300	11,200	11,300	19,300
Huntly	1,200	800	-	1,500	2,100	700	-	2,400	2,900	600	300	-	700	3,700
Ngaruawahia	1,100	2,400	600	2,600	3,200	6,900	10	7,100	7,300	1,800	2,800	10	2,800	10,100
Total MDRS Area	***4,800***	***8,500***	***5,200***	***10,000***	***9,100***	***18,000***	***5,500***	***20,700***	***22,100***	***16,500***	***24,700***	***21,900***	***25,600***	***47,600***
Te Kauwhata	700	1,500	800	1,700	1,100	2,200	400	2,300	2,500	2,300	2,200	1,400	2,600	5,100
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	100	-	-	100	200	-	-	200	200	600	-	-	600	800
Hopuhopu	-	-	-	-	-	-	-	-	-	100	-	-	100	100
Horotiu	200	-	-	200	200	-	-	200	300	300	-	-	300	600
Raglan	600	700	500	900	800	1,100	200	1,400	1,500	1,300	50	20	1,300	2,800
Total Other Urban Areas	***1,600***	***2,200***	***1,200***	***2,900***	***2,300***	***3,200***	***700***	***4,100***	***4,400***	***6,000***	***2,300***	***1,400***	***6,300***	***10,700***
District Total Urban	**6,400**	**10,700**	**6,400**	**12,900**	**11,400**	**21,200**	**6,200**	**24,800**	**26,500**	**22,500**	**27,000**	**23,300**	**31,900**	**58,400**

Source: M.E Waikato Residential Capacity Model, 2023.

Summary of Scenario 3a Feasible Capacity

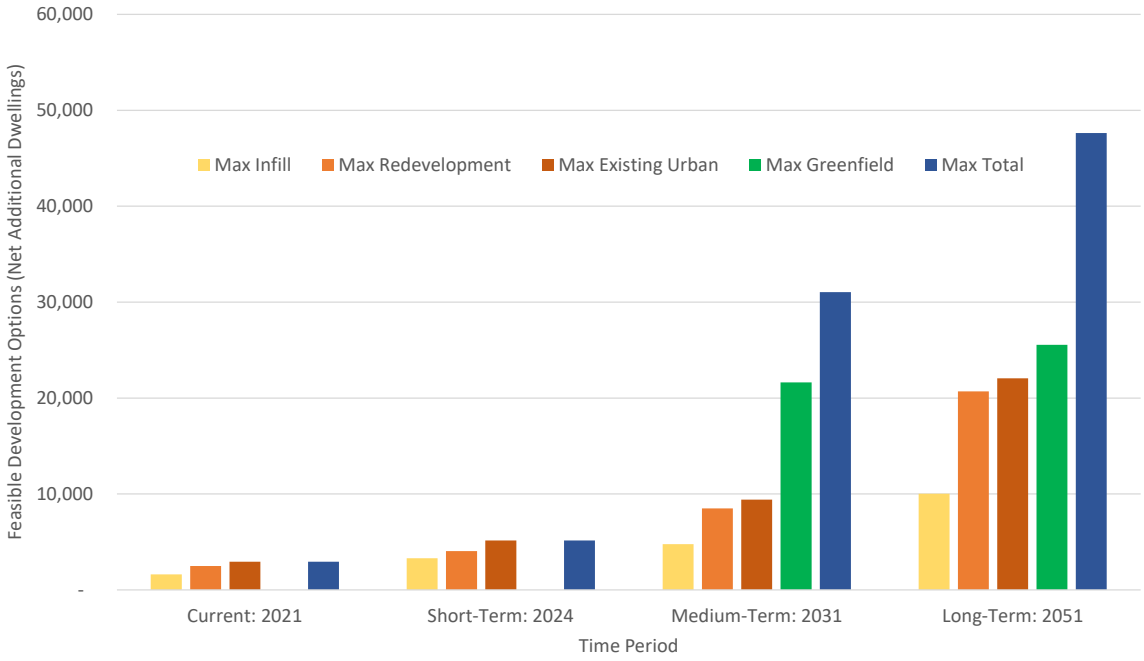
The projected commercially feasible capacity options are summarised across the different time periods in the graphs below. Figure 5-7 summarises the feasible capacity across the four main urban areas where MDRS is applied (Pookeno, Tuakau, Huntly and Ngaaruawaahia) and Figure 5-8 for all of the district's urban areas combined. It shows the maximum projected feasible dwelling development options across all typologies for the existing urban (incl. infill or redevelopment), greenfield and total areas across each of the time periods.

The graphs show that the feasible development capacity is projected to increase through time. There are large increases in capacity across both the existing urban and greenfield areas.

The greenfield projected long-term feasible capacity is higher under Scenario 3a (and Scenario 2) than the scenarios (1 and 3) where the density of greenfield areas remains at the PDP Decisions Version densities. Under Scenario 3a, the greenfield areas are instead modelled to develop at up to three dwellings per site.

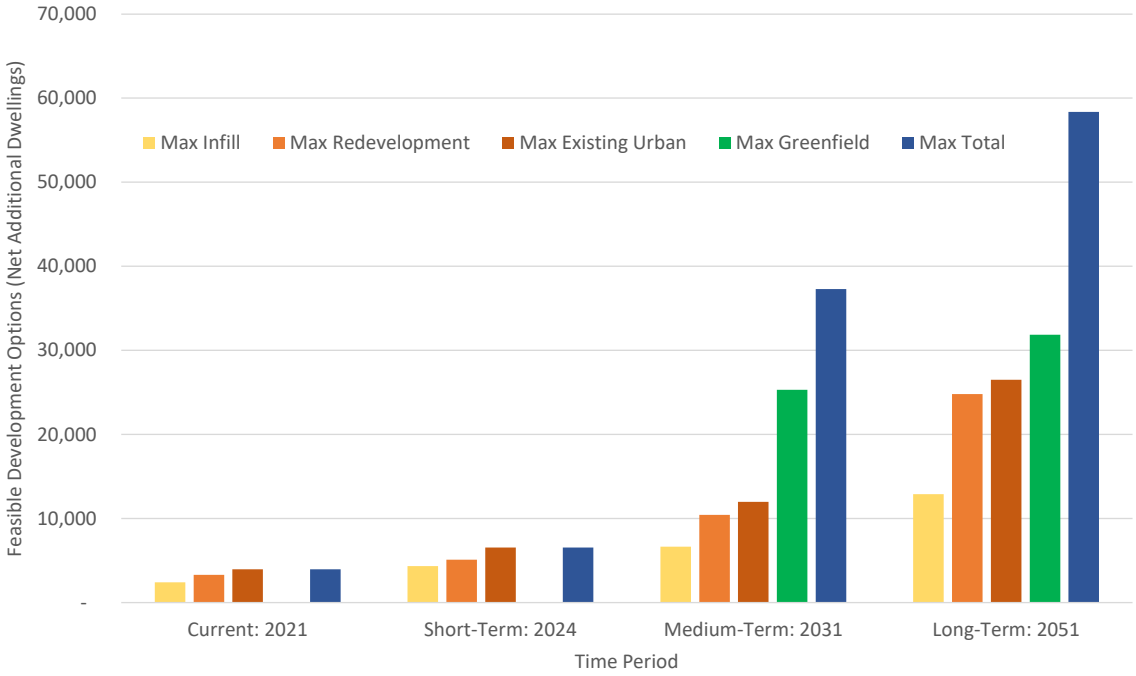
It is important to note that while the potential feasible yields of greenfield areas are higher under this scenario, they are still likely to develop at lower densities than the maximums enabled under the planning provisions. This is likely to occur particularly within the short-term, with greenfield area densities increasing through time.

Figure 5-7: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter) (Pookeno, Tuakau, Huntly and Ngaaruawaahia)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

Figure 5-8: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 3a – Modified Intensification (Variation 3 Excluding Urban Fringe Qualifying Matter) (All Urban Areas)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

5.6 Scenario 3b: Kāinga Ora Proposed Scenario

This section contains the plan enabled and commercially feasible capacity of the capacity scenario proposed within the Kāinga Ora submission. This scenario substantially increases the level of development from that contained within the scenarios (1 to 3a) proposed by WDC. It consequently results in large increases in capacity relative to the previous scenarios.

The increases in capacity under this this scenario mainly occur within the main urban areas where MDRS is applied (Pookeno, Tuakau, Huntly and Ngaaruawaahia). The largest increases have been proposed within the southern urban areas closest to Hamilton (Huntly and Ngaaruawaahia), with sizeable increases also in Pookeno and Tuakau, and smaller changes in Raglan and Te Kauwhata.

The proposed increases in capacity occur in several ways. These include:

- Increased height provision within the commercial zones of Huntly and Ngaaruawaahia.
- Application of HDR Zone around the commercial centres of Huntly and Ngaaruawaahia.
- Conversion of all suburban residential and future greenfield areas to MR Zone within the four main towns (Pookeno, Tuakau, Huntly and Ngaaruawaahia).
- Rezoning of an area of Large Lot Residential Zone in Tuakau to MR2 Zone.
- Smaller increases in MR Zone and commercial zoning within Raglan and Te Kauwhata.

It is important to note that a significant part of the Kāinga Ora proposed capacity occurs through the provision for vertically-attached apartments within the proposed HDR Zones and increased height within the commercial centres. Only the plan enabled capacity has been modelled for this typology within the scope of this assessment[22].

5.6.1 Plan Enabled Capacity

The modelled plan enabled capacity for Scenario 3b is contained in Table 5-23 to Table 5-25. The tables show the net additional dwellings that would be enabled under the Kāinga Ora proposed scenario, with greenfield infrastructure applied over the short to long-term.

Scenario 3b contains a large increase in capacity from the previously modelled scenarios in the above sections. It has a modelled plan enabled capacity for around 92,700 net additional dwellings in the short-term, increasing to 146,600 dwellings in the long-term with additional infrastructure provision within the greenfield areas.

The proposed increases in development potential have a modelled plan enabled capacity within the existing urban area that is two and a half times the level of capacity enabled under the PDP Decisions Version provisions. It is also increases the capacity enabled under Scenario 3a by over two-thirds. The relative

[22] We consider that plan enabled capacity forms the most useful measure to understand the provision for vertically-attached apartments proposed by Kāinga Ora. There is likely to be only a very small market size for higher density development within the Waikato District's urban areas, with very limited feasibility for a profit-driven commercial developer, which forms the main indication of a feasibility assessment. It is therefore most useful to understand the total scale of provision by location for this type of development as to its potential to be provided by all areas of the market.

increases are larger if considered only within the four main urban towns, where existing urban capacity is three times larger than that under the PDP Decisions Version provisions.

There are also large increases in the plan enabled capacity within the greenfield areas under Scenario 3b. The long-term greenfield capacity under this scenario is over three times that of the capacity enabled under the PDP Decisions Version provisions, and nearly two-thirds larger than that within Scenario 3a.

While the enabled density within the greenfield areas substantially increased, it it likely that there is going to be a smaller difference to other scenarios where MDRS is applied, without modification, across the GR and Future Urban Zones in relation to the density at which capacity is taken up. This is because the enabled densities of MDRS applied to the GR and Future Urban Zones is already likely to significantly exceed the density of market demand, meaning that a further increase in enabled density is unlikely to result in significantly increased densities of take-up.

Under this scenario, there is no differentiation in density between the residential areas surrounding the commercial centres and those further away from the centre in outer suburban and greenfield areas. This is likely to encourage a more dispersed pattern of growth.

Table 5-30: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3b – Kāinga Ora Proposed – Short-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Short-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	2,300	5,300	7,000	-	7,000	3,500	9,100	13,300	400	13,600	13,600	-	-	-	-	-	13,600
Tuakau	1,500	3,700	5,100	-	5,100	3,800	9,500	14,600	900	15,500	15,500	-	-	-	30	30	15,500
Huntly	2,100	5,000	6,900	-	6,900	6,600	15,900	24,600	5,600	29,200	29,200	-	-	-	-	-	29,200
Ngaruawahia	1,900	5,000	6,600	-	6,600	5,300	13,100	19,900	5,300	23,900	23,900	-	-	-	-	-	23,900
Total MDRS Area	***7,700***	***19,000***	***25,700***	***-***	***25,700***	***19,200***	***47,600***	***72,400***	***12,200***	***82,200***	***82,200***	***-***	***-***	***-***	***30***	***30***	***82,200***
Te Kauwhata	1,100	1,900	2,400	-	2,400	2,100	3,700	5,200	300	5,500	5,500	-	-	-	30	30	5,500
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	200	200	200	-	200	200	200	200	200	500	500	-	-	-	-	-	500
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	-	-	-	-	-	500
Raglan	1,000	1,400	1,600	-	1,600	1,700	2,700	3,600	500	4,000	4,000	-	-	-	-	-	4,000
Total Other Urban Areas	***2,400***	***3,600***	***4,500***	***-***	***4,500***	***4,300***	***6,900***	***9,300***	***1,200***	***10,500***	***10,500***	***-***	***-***	***-***	***30***	***30***	***10,500***
District Total Urban	**10,100**	**22,600**	**30,200**	**-**	**30,200**	**23,600**	**54,500**	**81,700**	**13,400**	**92,700**	**92,700**	**-**	**-**	**-**	**60**	**60**	**92,700**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-31: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3b – Kāinga Ora Proposed – Medium-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Medium-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	2,300	5,300	7,000	-	7,000	3,500	9,100	13,300	400	13,600	13,600	6,100	12,300	18,500	100	18,600	32,200
Tuakau	1,500	3,700	5,100	-	5,100	3,800	9,500	14,600	900	15,500	15,500	7,800	14,100	18,800	400	19,200	34,600
Huntly	2,100	5,000	6,900	-	6,900	6,600	15,900	24,600	5,600	29,200	29,200	600	1,200	1,900	-	1,900	31,000
Ngaruawahia	1,900	5,000	6,600	-	6,600	5,300	13,100	19,900	5,300	23,900	23,900	1,400	2,900	4,300	-	4,300	28,200
Total MDRS Area	***7,700***	***19,000***	***25,700***	***-***	***25,700***	***19,200***	***47,600***	***72,400***	***12,200***	***82,200***	***82,200***	***15,900***	***30,500***	***43,400***	***500***	***43,900***	***126,100***
Te Kauwhata	1,100	1,900	2,400	-	2,400	2,100	3,700	5,200	300	5,500	5,500	1,800	1,900	2,100	400	2,400	7,900
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	200	200	200	-	200	600
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	1,000	1,400	1,600	-	1,600	1,700	2,700	3,600	500	4,000	4,000	700	700	700	-	700	4,800
Total Other Urban Areas	***2,400***	***3,600***	***4,500***	***-***	***4,500***	***4,300***	***6,900***	***9,300***	***1,200***	***10,500***	***10,500***	***4,400***	***4,500***	***4,600***	***400***	***5,000***	***15,500***
District Total Urban	**10,100**	**22,600**	**30,200**	**-**	**30,200**	**23,600**	**54,500**	**81,700**	**13,400**	**92,700**	**92,700**	**20,300**	**35,000**	**48,100**	**800**	**48,900**	**141,600**

Source: M.E Waikato Residential Capacity Model, 2023.

Table 5-32: Waikato District Plan Enabled Capacity by Dwelling Typology and Urban Area: Scenario 3b – Kāinga Ora Proposed – Long-Term Greenfields Infrastructure

	INFILL					REDEVELOPMENT						GREENFIELD (Long-Term Infrastructure)					
LEVEL	Detached	Attached	Terraced/ Apartment	Vertical Apartments	Max Infill	Detached	Attached	Terraced/Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced /Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
Pokeno	2,300	5,300	7,000	-	7,000	3,500	9,100	13,300	400	13,600	13,600	7,100	13,800	20,000	100	20,100	33,700
Tuakau	1,500	3,700	5,100	-	5,100	3,800	9,500	14,600	900	15,500	15,500	7,800	14,100	18,800	400	19,200	34,600
Huntly	2,100	5,000	6,900	-	6,900	6,600	15,900	24,600	5,600	29,200	29,200	600	1,200	1,900	-	1,900	31,000
Ngaruawahia	1,900	5,000	6,600	-	6,600	5,300	13,100	19,900	5,300	23,900	23,900	1,900	4,000	6,000	-	6,000	29,900
Total MDRS Area	***7,700***	***19,000***	***25,700***	***-***	***25,700***	***19,200***	***47,600***	***72,400***	***12,200***	***82,200***	***82,200***	***17,500***	***33,200***	***46,700***	***500***	***47,100***	***129,300***
Te Kauwhata	1,100	1,900	2,400	-	2,400	2,100	3,700	5,200	300	5,500	5,500	2,300	2,500	2,700	400	3,000	8,500
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	1,400	1,400	1,400	-	1,400	1,400
Taupiri	200	200	200	-	200	200	200	200	200	500	500	600	600	600	-	600	1,100
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	100	100	100	-	100	100
Horotiu	200	200	200	-	200	300	300	300	200	500	500	300	300	300	-	300	900
Raglan	1,000	1,400	1,600	-	1,600	1,700	2,700	3,600	500	4,000	4,000	1,300	1,300	1,300	-	1,300	5,300
Total Other Urban Areas	***2,400***	***3,600***	***4,500***	***-***	***4,500***	***4,300***	***6,900***	***9,300***	***1,200***	***10,500***	***10,500***	***6,100***	***6,200***	***6,400***	***400***	***6,800***	***17,300***
District Total Urban	**10,100**	**22,600**	**30,200**	**-**	**30,200**	**23,600**	**54,500**	**81,700**	**13,400**	**92,700**	**92,700**	**23,500**	**39,400**	**53,100**	**800**	**53,900**	**146,600**

Source: M.E Waikato Residential Capacity Model, 2023.

5.6.2 Commercially Feasible Capacity

The following sub-sections contain the estimated areas of plan enabled capacity that are likely to form potential commercially feasible development options for developers in the current market as well as the short, medium and long-term under Scenario 3b.

Importantly, the capacity should not be confused with growth – it is a measure of the potential capacity, some of which is likely to get taken up by the market with growth. Refer to the 2021 HBA for a more detailed description of the measure of commercially feasible capacity. This is particularly important within this scenario where much of the additional capacity occurs at densities significantly above other modelled scenarios and existing market trends within these areas. While this scenario enables a large feasible development opportunity, the level of take-up of capacity will be similarly limited by the size of market demand, which is limited for more intensive dwellings.

Current Market: 2021

Table 5-26 shows that there is a modelled estimated currently commercially feasible capacity of around 5,800 dwellings as potential development options under Scenario 3b. This amounts to around 6% of the plan enabled capacity.

The feasible capacity under Scenario 3b is significantly above that of the baseline PDP Decisions Version scenario (Scenario 1) and that of the higher capacity Scenario 3a. The feasible capacity is around 1,800 to 2,600 dwellings above the capacity within these scenarios. Nearly all of this effect occurs within the main urban towns where MDRS is applied as a result of the increased capacity occurring in these areas.

Table 5-33: Waikato District Current Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3b – Kāinga Ora Proposed

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	600	1,700	-	1,700	400	1,100	-	1,100	2,000	-	-	-	-	2,000
Tuakau	400	900	-	900	700	1,200	-	1,300	1,500	-	-	-	-	1,500
Huntly	80	-	-	80	100	-	-	100	200	-	-	-	-	200
Ngaruawahia	300	-	-	300	900	-	-	900	1,000	-	-	-	-	1,000
Total MDRS Area	***1,400***	***2,700***	***-***	***3,100***	***2,200***	***2,400***	***-***	***3,500***	***4,700***	***-***	***-***	***-***	***-***	***4,700***
Te Kauwhata	200	-	-	200	200	-	-	200	300	-	-	-	-	300
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	60	-	-	60	70	-	-	-	-	70
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Raglan	400	200	-	500	500	100	-	600	700	-	-	-	-	700
Total Other Urban Areas	***700***	***200***	***-***	***800***	***800***	***100***	***-***	***900***	***1,100***	***-***	***-***	***-***	***-***	***1,100***
District Total Urban	**2,200**	**2,800**	**-**	**3,900**	**3,000**	**2,500**	**-**	**4,400**	**5,800**	**-**	**-**	**-**	**-**	**5,800**

Source: M.E Waikato Residential Capacity Model, 2023.

Short-Term: 2024

The estimated commercially feasible development options are projected to increase to around 9,300 dwellings under Scenario 3b in the short-term (see Table 5-27). This equates to around 10% of the plan enabled capacity.

Similar to the current market, the projected short-term commercially feasible capacity is higher than that enabled under other modelled scenarios. It is between 2,800 and 4,700 dwellings higher than that of Scenarios 1 and 3a. The increase in capacity is largely concentrated into the four main urban areas where MDRS is applied.

Table 5-34: Waikato District Short-Term Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3b – Kāinga Ora Proposed

LEVEL	INFILL				REDEVELOPMENT					GREENFIELD (Short-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	800	2,800	-	2,800	500	2,300	-	2,300	3,300	-	-	-	-	3,300
Tuakau	800	1,700	-	1,800	1,200	2,700	-	2,700	2,800	-	-	-	-	2,800
Huntly	500	-	-	500	200	-	-	200	600	-	-	-	-	600
Ngaruawahia	500	-	-	500	1,200	-	-	1,200	1,300	-	-	-	-	1,300
Total MDRS Area	***2,600***	***4,600***	***-***	***5,600***	***3,100***	***5,000***	***-***	***6,400***	***7,900***	***-***	***-***	***-***	***-***	***7,900***
Te Kauwhata	300	-	-	300	300	-	-	300	400	-	-	-	-	400
Ohinewai	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taupiri	50	-	-	50	70	-	-	70	80	-	-	-	-	80
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	100	-	-	100	10	-	-	10	100	-	-	-	-	100
Raglan	500	200	-	600	600	200	-	700	900	-	-	-	-	900
Total Other Urban Areas	***1,000***	***200***	***-***	***1,100***	***1,000***	***200***	***-***	***1,100***	***1,500***	***-***	***-***	***-***	***-***	***1,500***
District Total Urban	**3,600**	**4,800**	**-**	**6,700**	**4,100**	**5,100**	**-**	**7,400**	**9,300**	**-**	**-**	**-**	**-**	**9,300**

Source: M.E Waikato Residential Capacity Model, 2023.

Medium-Term: 2031

The estimated feasible capacity is projected to increase substantially in the medium-term to around 47,800 dwellings development opportunity (see Table 5-28). This amounts to around one-third (34%) of the plan-enabled capacity.

Similar to the other modelled scenarios, the growth in feasible capacity within the medium-term is projected to occur in several ways. These include an increase in the location and type of development opportunities within the existing urban environment and the increase in greenfield areas that are feasible to develop with the supply of infrastructure networks in the medium-term.

The large growth in the medium-term is projected to occur as a result of the market for more intensive dwellings gradually becoming more established. The modelled capacity suggests that this is more likely to occur within the higher value urban areas, seen in the larger feasible capacity in attached dwellings. There is limited feasible capacity in attached dwellings in lower value locations such as Huntly in the medium-term.

Despite the large increases in capacity during the medium-term, the level of take up will be limited by the level of market demand. It is likely that a portion of sites will continue to be developed at densities below that enabled under the proposed provisions in response to the relative differences in market size for different dwelling typologies and sizes.

Table 5-35: Waikato District Medium-Term Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3b – Kāinga Ora Proposed

LEVEL	INFILL				REDEVELOPMENT				Max Infill or Redevelopment	GREENFIELD (Medium-Term Infrastructure)				Max Greenfield and Existing Urban
	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment		Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	900	3,400	-	3,400	700	3,700	-	3,700	4,200	6,100	12,300	-	12,300	16,500
Tuakau	800	2,400	-	2,400	1,500	5,100	-	5,100	5,200	7,700	14,100	500	14,100	19,300
Huntly	600	-	-	600	700	-	-	700	1,000	300	-	-	300	1,300
Ngaruawahia	600	600	-	900	1,900	1,200	-	2,600	2,700	1,400	300	-	1,600	4,200
Total MDRS Area	***2,900***	***6,400***	***-***	***7,200***	***4,800***	***10,100***	***-***	***12,200***	***13,100***	***15,500***	***26,700***	***500***	***28,300***	***41,400***
Te Kauwhata	500	800	-	900	600	600	-	900	1,200	1,500	60	-	1,500	2,800
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	90	-	-	90	100	-	-	100	100	200	-	-	200	300
Hopuhopu	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Horotiu	200	-	-	200	90	-	-	90	200	30	-	-	30	200
Raglan	500	400	-	900	700	300	-	1,000	1,200	600	-	-	600	1,800
Total Other Urban Areas	***1,300***	***1,200***	***-***	***2,000***	***1,500***	***1,000***	***-***	***2,100***	***2,800***	***3,700***	***60***	***-***	***3,700***	***6,400***
District Total Urban	**4,200**	**7,600**	**-**	**9,200**	**6,300**	**11,100**	**-**	**14,200**	**15,900**	**19,200**	**26,800**	**500**	**31,900**	**47,800**

Source: M.E Waikato Residential Capacity Model, 2023.

Long-Term: 2051

The share of plan-enabled capacity that is projected to be commercially feasible development options is projected to increase further in the long-term (see Table 5-29). There is an estimated feasible capacity of 89,100 dwellings in Waikato district's main urban areas under Scenario 3b in the long-term.

The projected long-term feasible capacity modelled under Scenario 3b exceeds that of other modelled scenarios. This occurs within the four main urban areas where the MDRS is applied, while the feasible capacity in the district's other urban areas is more similar to that under the WDC-proposed scenarios.

The difference in capacity to Scenarios 1 and 3a is projected to continue to increase into the long-term. It is estimated to be around two and a half times the capacity of Scenario 1 and around 50% higher than Scenario 3a.

Table 5-36: Waikato District Long-Term Commercially Feasible Capacity by Dwelling Typology and Urban Area: Scenario 3b – Kāinga Ora Proposed

	INFILL				REDEVELOPMENT					GREENFIELD (Long-Term Infrastructure)				Max Greenfield and Existing Urban
LEVEL	Detached	Attached	Terraced/ Apartment	Max Infill	Detached	Attached	Terraced/ Apartment	Max Redevelopment	Max Infill or Redevelopment	Detached	Attached	Terraced/ Apartment	Max Greenfield	
Pokeno	1,400	5,000	3,600	5,800	1,500	7,700	1,900	8,200	9,400	7,100	13,800	19,700	19,900	29,200
Tuakau	1,100	3,300	3,500	4,400	2,400	8,100	4,500	9,600	9,900	7,800	14,100	18,500	18,700	28,600
Huntly	1,300	1,500	-	2,000	2,500	2,300	-	3,700	4,200	600	700	-	1,000	5,200
Ngaruawahia	1,100	3,700	1,300	4,000	3,400	10,800	100	10,800	11,000	1,900	4,000	10	4,000	15,000
Total MDRS Area	***4,900***	***13,500***	***8,300***	***16,300***	***9,800***	***29,000***	***6,500***	***32,300***	***34,500***	***17,500***	***32,600***	***38,200***	***43,500***	***78,000***
Te Kauwhata	800	1,500	800	1,700	1,100	2,200	400	2,300	2,600	2,300	2,200	1,400	2,600	5,100
Ohinewai	-	-	-	-	-	-	-	-	-	1,400	-	-	1,400	1,400
Taupiri	100	-	-	100	200	-	-	200	200	600	-	-	600	800
Hopuhopu	-	-	-	-	-	-	-	-	-	100	-	-	100	100
Horotiu	200	-	-	200	200	-	-	200	300	300	-	-	300	600
Raglan	600	900	500	1,100	900	1,300	200	1,700	1,800	1,300	50	20	1,300	3,100
Total Other Urban Areas	***1,700***	***2,400***	***1,300***	***3,100***	***2,400***	***3,500***	***700***	***4,400***	***4,800***	***6,000***	***2,300***	***1,400***	***6,300***	***11,100***
District Total Urban	**6,600**	**15,900**	**9,600**	**19,400**	**12,200**	**32,500**	**7,100**	**36,700**	**39,300**	**23,500**	**34,900**	**39,600**	**49,800**	**89,100**

Source: M.E Waikato Residential Capacity Model, 2023.

Summary of Scenario 3b Feasible Capacity

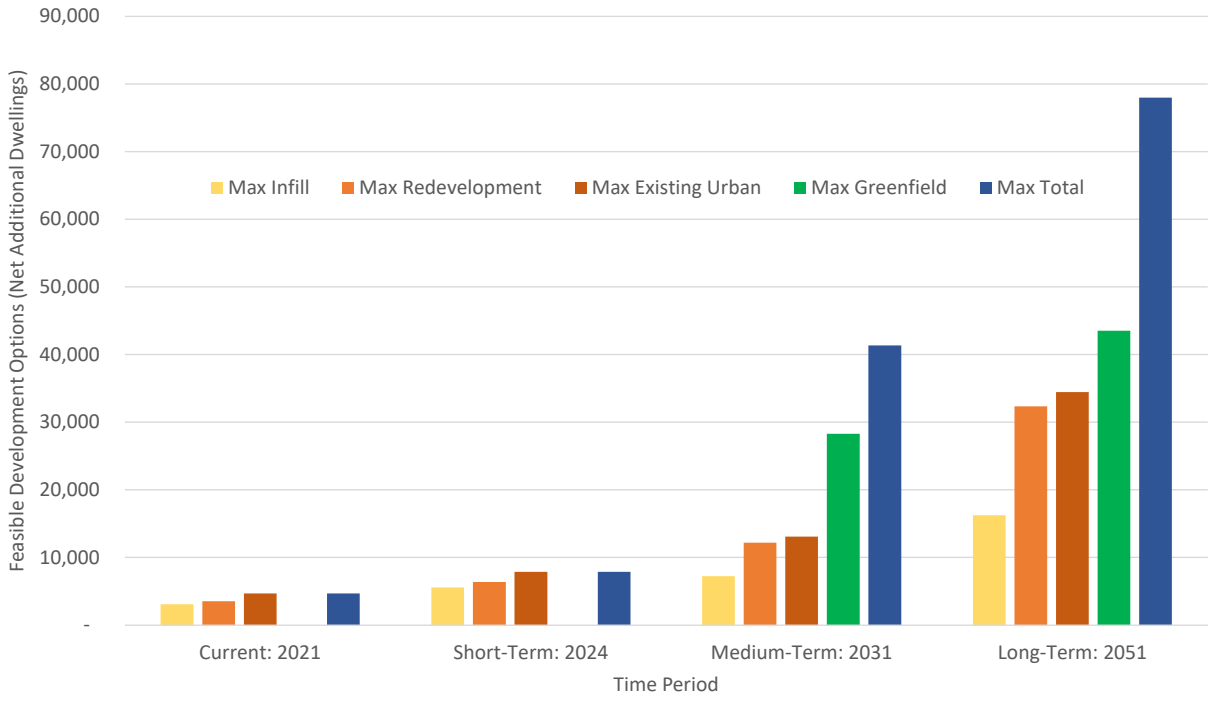
The projected commercially feasible capacity options are summarised across the different time periods in the graphs below. Figure 5-7 summarises the feasible capacity across the four main urban areas where MDRS is applied (Pookeno, Tuakau, Huntly and Ngaaruawaahia) and Figure 5-8 for all of the district's urban areas combined. It shows the maximum projected feasible dwelling development options across all typologies for the existing urban (incl. infill or redevelopment), greenfield and total areas across each of the time periods.

The graphs show that the feasible development capacity is projected to increase through time. There are large increases in capacity across both the existing urban and greenfield areas. The highest levels of feasibility continue to occur within the northern towns due to the higher value nature of these areas. These locations have a larger influence from the Auckland market where more intensive dwelling typologies are more established. Huntly and Ngaaruawaahia tend to have lower levels of commercial feasibility for more intensive dwelling options enabled within this scenario.

Both the existing urban and greenfield projected long-term feasible capacity is higher under Scenario 3b than all other modelled scenarios. The differences in feasible capacity are mainly confined to the four main urban towns where MDRS is applied.

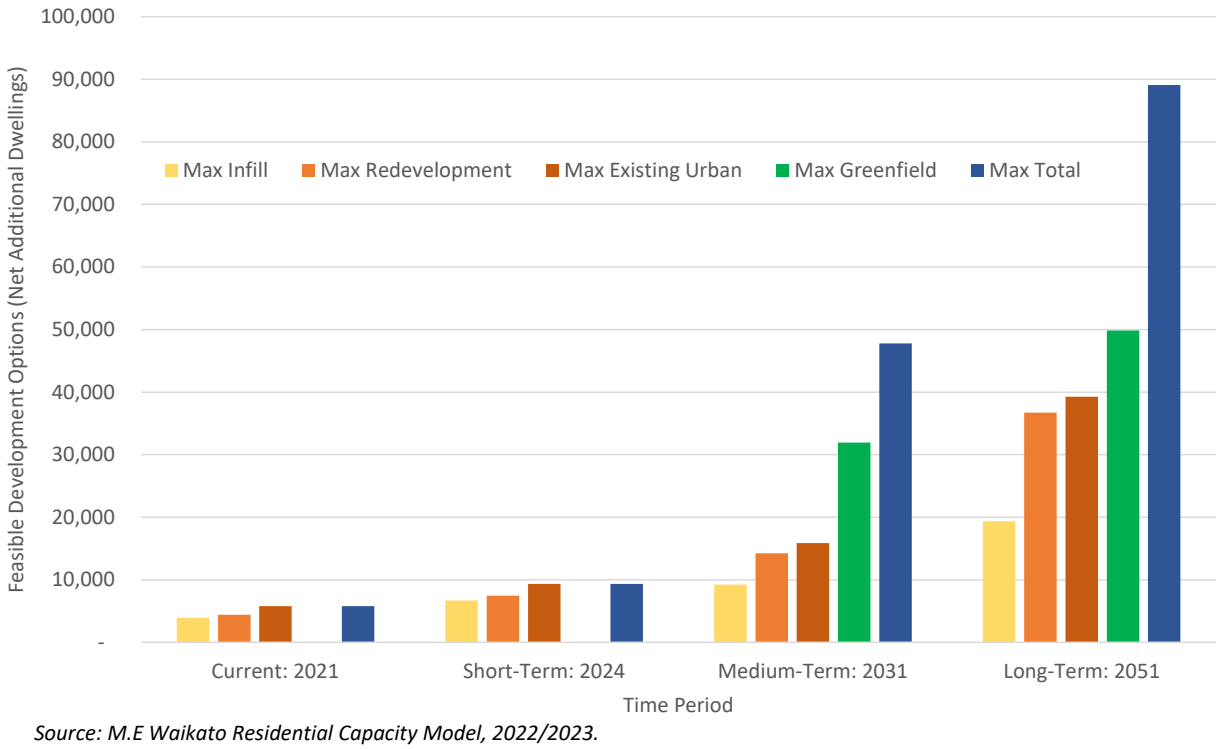
It is important to note that while the potential feasible yields of existing urban and greenfield areas are higher under this scenario, they are still likely to develop at lower densities than the maximums enabled under the planning provisions. This is likely to occur particularly within the short-term, with densities increasing through time.

Figure 5-9: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 3b – Kāinga Ora Proposed (Pookeno, Tuakau, Huntly and Ngaaruawaahia)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

Figure 5-10: Waikato District Main Urban Area Estimated Commercially Feasible Capacity by Location Type and Time Period: Scenario 3b – Kāinga Ora Proposed (All Urban Areas)



Source: M.E Waikato Residential Capacity Model, 2022/2023.

5.7 Comparison of Scenarios and Qualifying Matters

This section identifies the effect of the intensification provisions and qualifying matters on commercially feasible capacity through a comparison of the capacity across each scenario. The first part of this section provides an overview of the total capacity enabled under each of the scenarios, and then compares this to the projected demand. The second part of this section then quantifies the effect of the intensification provisions on baseline capacity and the effect of the urban fringe qualifying matters.

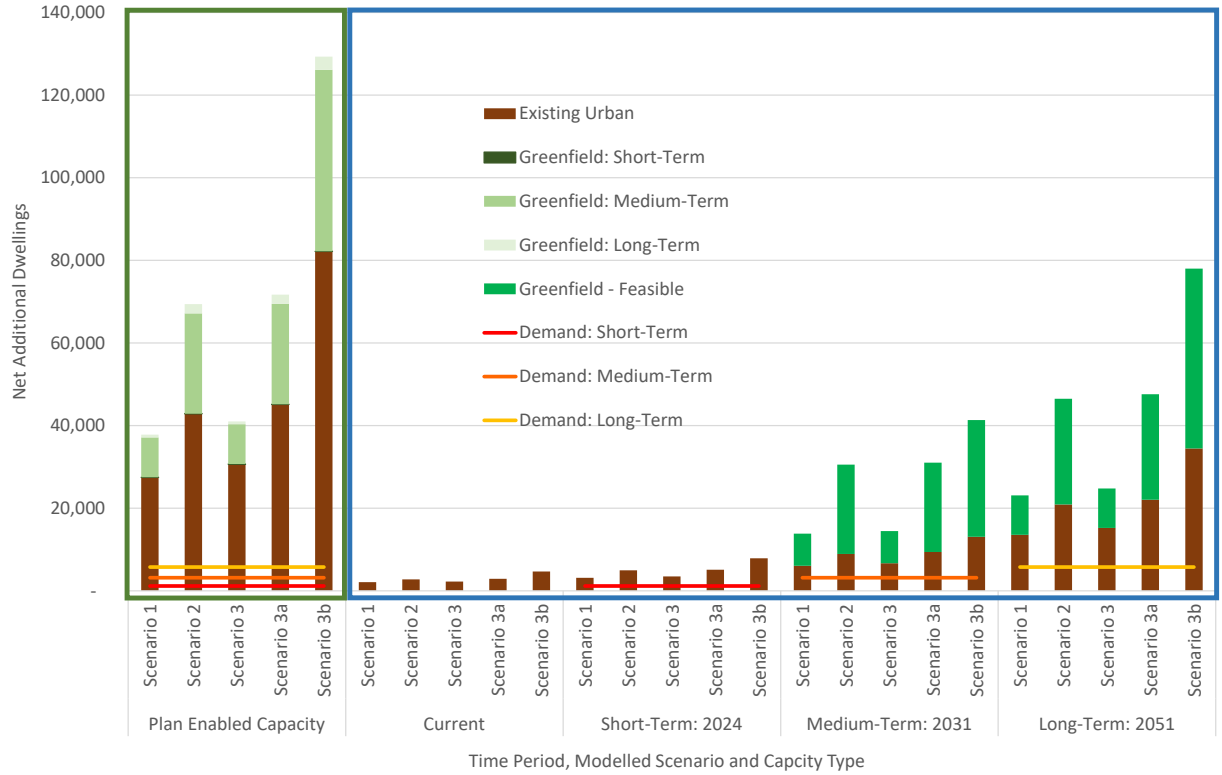
5.7.1 Overview of Total Modelled Capacity and Comparison to Demand

The total modelled capacity (maximum yields for existing urban plus greenfield) under each of the scenarios is shown in the graphs and tables below. They show the total plan enabled capacity as well as the projected feasible capacity in the current market, short, medium and long-terms. The capacity within each time period is overlaid with the projected urban demand (including a margin) within the district's main urban areas, obtained from the 2021 HBA. The HBA demand projections estimate the urban share of dwelling demand from the April 2021 FPP WISE High Series Projections[23].

Figure 5-11 and Table 5-37 show the demand and capacity within the four main urban areas where MDRS is applied (Pookeno, Tuakau, Huntly and Ngaaruawaahia), while Figure 5-12 shows the comparison for all of the district's urban areas combined.

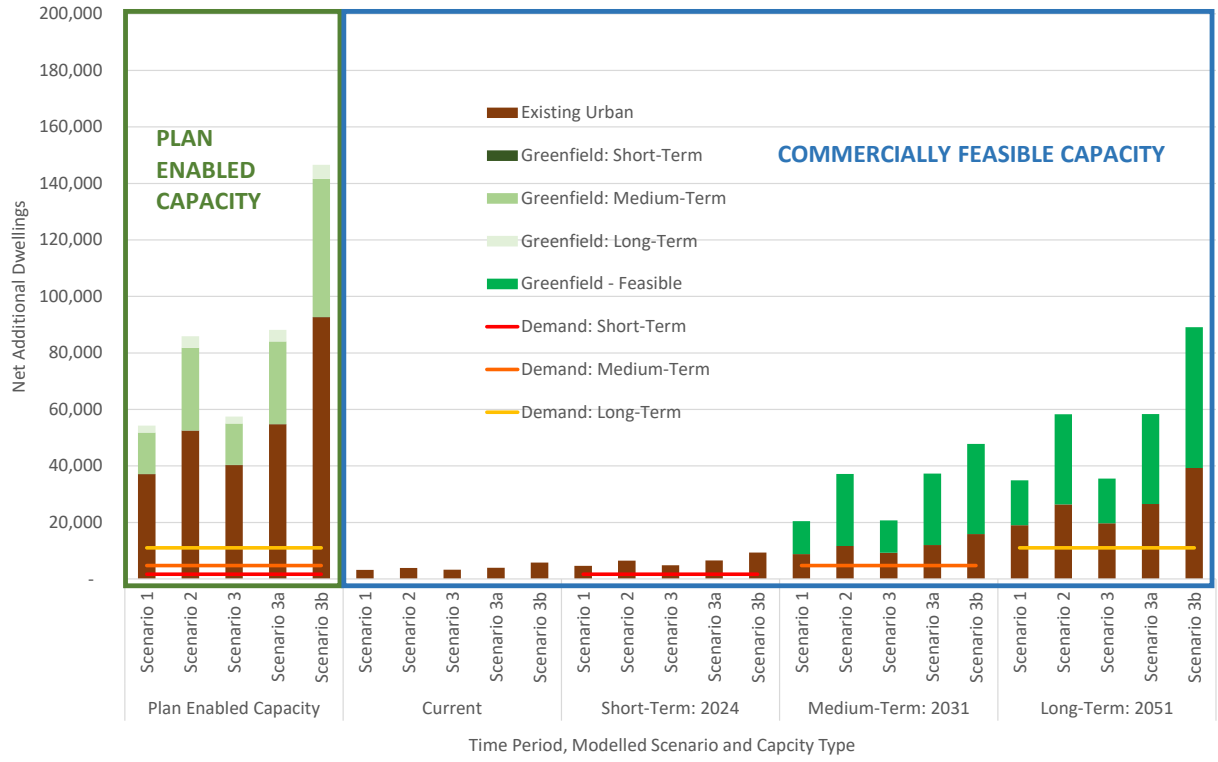
[23] Updated household projections have been released by Statistics New Zealand on 15 December 2022. These have not yet been evaluated within the context of this report and there has not yet been any direction on the use of these projections by FPP. As such, the report uses the 2021 HBA projections as directed by FPP for the HBA.

Figure 5-11: Comparison of Plan-Enabled and Projected Commercially Feasible Capacity by Type and Modelled Scenario and Demand (Pookeno, Tuakau, Huntly and Ngaaruawaahia)



Source: M.E Waikato Residential Capacity Model, 2022/2023 and 2021 FPP HBA.

Figure 5-12: Comparison of Plan-Enabled and Projected Commercially Feasible Capacity by Type and Modelled Scenario and Demand (All Urban Areas)



Source: M.E Waikato Residential Capacity Model, 2022/2023 and 2021 FPP HBA.

Table 5-37: Modelled Net Additional Dwelling Capacity by Scenario in Waikato District Main Urban Areas (Pookeno, Tuakau, Huntly and Ngaaruawaahia)

		MAIN URBAN AREAS: Pokeno, Tuakau, Huntly and Ngaruawahia			
		TIME PERIOD			
Scenario	**Capacity Type**	**CURRENT**	**SHORT-TERM**	**MEDIUM-TERM**	**LONG-TERM**
1: PDP Decisions Version - Baseline	Plan Enabled	27,500	27,500	37,100	37,800
	Commercially Feasible	2,100	3,200	13,900	23,100
2: PDP Decisions Version - with MDRS	Plan Enabled	42,900	42,900	67,200	69,400
	Commercially Feasible	2,800	5,000	30,600	46,500
3: Variation 3 with MDRS and Urban Fringe	Plan Enabled	30,700	30,700	40,300	41,000
	Commercially Feasible	2,300	3,500	14,500	24,800
3a: Variation 3 with MDRS excl. Urban Fringe	Plan Enabled	45,200	45,200	69,400	71,700
	Commercially Feasible	2,900	5,100	31,000	47,600
3b: Kainga Ora Submission Proposal	Plan Enabled	82,200	82,200	126,100	129,300
	Commercially Feasible	4,700	7,900	41,400	78,000
HBA 2021	**DEMAND (Incl. Margin)**		1,200	3,200	5,800

Source: M.E Waikato Residential Capacity Model, 2022/2023.

Comparison of Modelled Capacity by Modelled Scenario

The graphs show the relative differences in capacity between the different modelled scenarios. The first four scenarios (1 to 3a) are those proposed by WDC, while Scenario 3b is that proposed within the Kāinga Ora submission.

All of the scenarios enable a much larger level of capacity within the existing urban area than that currently enabled under the ODP. Much of the existing urban extent of the district's urban towns is currently covered by lower density residential zones, with development patterns predominantly characterised by detached dwellings on full sites. All of the modelled scenarios instead upzone a large proportion of the existing urban area to MR Zone. This enables much higher densities to occur, up to either terraced housing or low-rise apartment development.

The existing MR Zone would enable significant levels of intensification to occur within the existing urban area in relatively wide areas surrounding the existing commercial centres. Higher enabled yields in these areas are likely to encourage future intensification within these areas by increasing the feasibility of redevelopment. The enabled densities are currently much greater than the existing development patterns. This means it is likely that intensification will occur gradually through time, and is likely to occur at densities below the maximum enabled as the market gradually becomes more established.

As such, although these capacities are enabled and feasible, it is unlikely that the level of feasible capacity or enabled density will be achieved in all locations. Only a portion of the capacity is likely to get taken up, much of it at lower densities than enabled. This is likely to be at a level more in line with the scale of market demand.

The graphs show that Scenarios 2 and 3a have much higher capacities than Scenarios 1 and 3. This is due to the enabled intensification across the remainder of the GR Zone suburban area beyond the existing MR Zone and greenfield areas of future urban expansion. The application of MDRS to the GR Zone substantially increases the capacity within this zone.

Under Scenarios 2 and 3a, densities of up to terraced/town housing are enabled across the wider residential suburban and greenfield areas. While these are at a lower density than that enabled within the MR Zone areas (up to more intensive terraced housing/low-rise apartments), much of the take-up of capacity may occur at similar densities across the zones.

Growth in the Waikato district's urban towns has predominantly occurred as lower density detached dwellings. It is likely that this demand will continue, with gradual change towards more intensive dwellings through time. The larger proportions of shifts toward more intensive dwelling typologies are likely to occur in the less intensive attached dwelling typologies which have greater demand substitution with demand for detached dwellings. Lower intensity attached dwellings are enabled across both the MR and GR Zones with MDRS applied, meaning there is less encouragement for this development to occur within central areas. Scenarios 2 and 3a are therefore likely to result in a wider dispersal of intensification across the existing urban area than Scenarios 1 and 3.

The Kāinga Ora-proposed scenario (3b) has much larger capacity than any of the WDC-proposed scenarios. This scenario removes any differentiation in enabled density between the residential areas surrounding the

commercial centres and those in outer existing urban locations or greenfield areas. This scenario would also encourage a growth pattern that is less concentrated around the commercial centres.

Comparison of Capacity to Demand

Figure 5-11 and Figure 5-12 show that all of the modelled scenarios enable additional dwelling capacity that is large relative to demand. The capacity enabled under the WDC-proposed scenarios ranges from 5 to 12 times the level of long-term demand, with capacity enabled under the Kāinga Ora-proposed scenario between 13 and 22 times the level of long-term demand.

The projected level of feasible development capacity is also large relative to demand within all of the modelled scenarios. This suggests that the proposed intensification provisions provide a wide development potential for the market to take-up capacity.

The degree to which the feasible capacity exceeds demand continues to increase through time across all scenarios. This is likely to occur as a result of increased development opportunities becoming feasible through time with growth, with the market for more intensive dwellings become more established over the medium to long-term.

The plan enabled and feasible capacity exceeds the demand by a larger margin within the four main urban areas where MDRS is applied. This is due to the increased provisions for intensification and wider range of development options provided within these locations. Some of these areas (particularly Pookeno and Tuakau) are higher value locations where a greater range of development options are likely to be feasible.

Figure 5-13 below provides further detail on the balance between demand and capacity within each of the four main urban towns where MDRS is applied. The bars show the modelled capacity, with the points showing the projected demand within each location. The dark blue portions of the bars show the projected feasible capacity in the medium-term across the existing urban and future infrastructure-served greenfield areas combined. The lighter blue portions of the bars show the further capacity that becomes feasible within the long-term. The green portions of the bars show the further capacity that is plan enabled within the medium and long-term beyond the portion of capacity that is estimated to be commercially feasible.

The graph shows that the commercially feasible capacity in Pookeno, Tuakau and Ngaaruawaahia substantially exceeds the projected demand across all scenarios. This suggests that there is likely to be a sizeable development opportunity relative to projected demand in these locations.

In Huntly, the projected demand exceeds the feasible capacity in Scenarios 1 and 3 where the MDRS is not applied to the outer suburban and greenfield areas. It also shows that the medium-term projected demand is close to or above the projected medium-term feasible capacity across all modelled scenarios. However, it also shows that there is a large amount of zoned opportunity beyond the feasible capacity within Huntly.

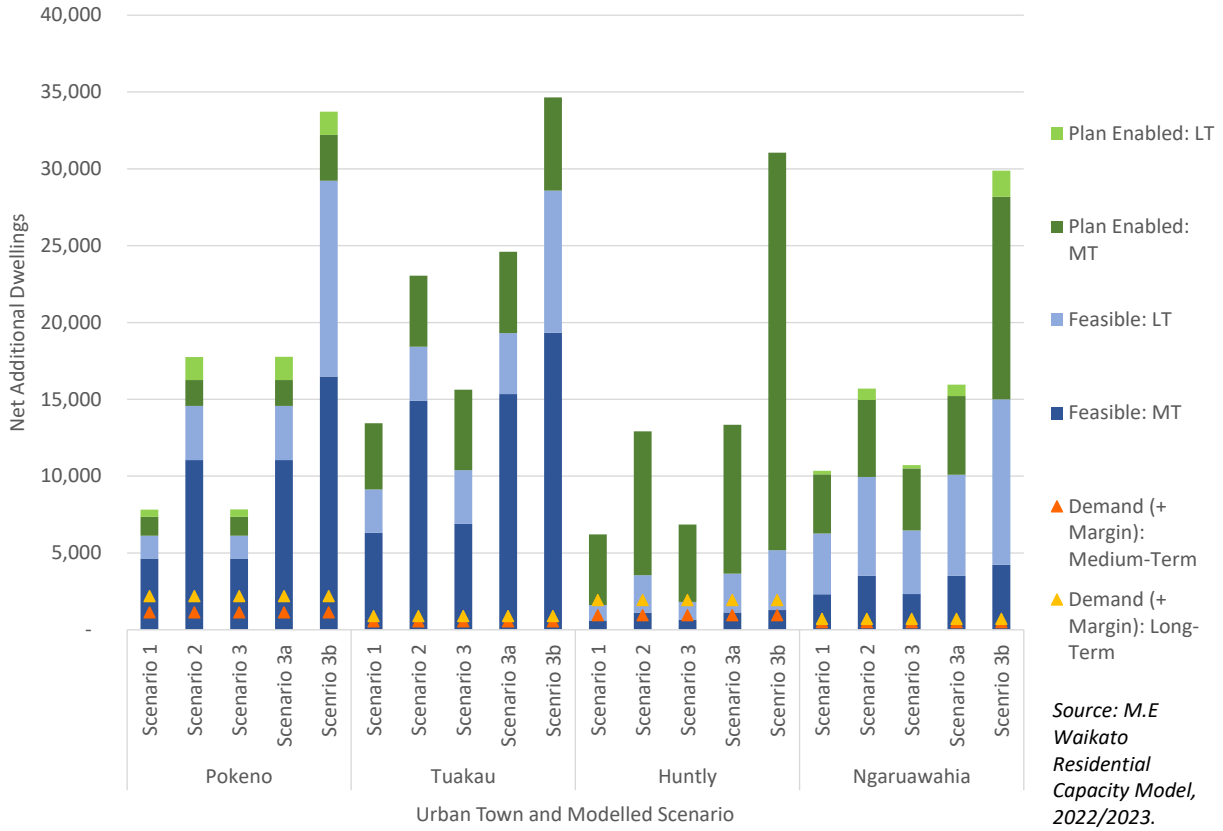
While there is a large amount of plan-enabled capacity provision beyond demand within Huntly, it is less likely that this capacity will get taken up by the private developer sector to meet long-term demand within Huntly.

The assessment has found that there is a long-term plan enabled capacity for between 600 and 1,900 additional dwellings within infrastructure-served greenfield areas in Huntly. It is likely that the realisable yield of this capacity is closer to 600 dwellings within this location, with the upper range of the capacity

formed by the application of dwelling densities that are well above existing development patterns and that are unlikely to become well-established within the private developer sector within the lower value location of Huntly.

In comparison, there is a long-term projected demand for an additional 1,700 dwellings within Huntly, or an additional 2,000 dwellings if a margin is applied. This means that if the greenfield capacity is realised at a density closer to the lower end of the range and is all taken up, then this could meet around one-third to half of the demand. Consequently, it would require around half to two-thirds of Huntly's long-term demand to be met through intensification within the existing urban area. This is less likely to occur within the private, profit-driven developer sector within Huntly as a lower value market where more intensive dwellings are less likely to become well-established within the medium-term.

Figure 5-13: Modelled Capacity and Urban Demand by Location and Scenario: Medium and Long-Term



Source: M.E Waikato Residential Capacity Model, 2022/2023.

It is important to note that not all feasible capacity is likely to be available to the market for development. Therefore, it is important that there is not a reliance on high take-up rates of capacity to meet future demand. In the other main urban towns (Pookeno, Tuakau and Ngaaruawaahia), the modelling indicates that the capacity is likely to exceed demand by a large margin. The modelled greenfield capacity alone in these locations also exceeds the total demand within the current set of projections by a sizeable margin. This occurs under all of the modelled scenarios, meaning that there is likely to be large capacity within these greenfield areas relative to demand even if they developed at the existing lower densities.

It is important to note however that the above comparison is a high level comparison between previously projected total demand and total projected capacity. It is recommended that further assessment is

undertaken to understand the alignment between the type of demand and type of capacity enabled. It is also important to evaluate the scale of the proposed provisions in relation to the likely market size as the combination of these factors will affect the take-up of development and the urban form patterns that emerge.

It is likely that development will get taken up through time at a range of densities, including up to that of the provisions in some locations. However, a portion of the development capacity delivered by the market is still likely to occur at lower to medium densities, particularly within the short-term, as demand increases through time for more intensive dwelling options.

A more detailed sufficiency assessment will be undertaken shortly in the next HBA for FPP. In the interim, it is important to consider the type of capacity enabled under the different provisions, including its alignment with medium density development patterns in similar types of urban areas. This will indicate the types of development patterns that may occur within these areas and their corresponding likely yield.

It is also important to note that the comparison undertaken here is based on the spatial projections of demand undertaken during the 2021 HBA demand assessment. The 2023 HBA assessment may update the spatial distribution of demand if further information is available, including the consideration of demand patterns within adjacent urban economies.

5.7.2 Quantified Effect of Intensification Provisions and Urban Fringe Qualifying Matters

This section quantifies the effect of the Urban Fringe qualifying matter on capacity. It does this through comparing the net and percentage differences in capacity between Scenarios 3 and 3a. These scenarios both have the same underpinning zoning structure (Variation 3), with the presence or absence of the Urban Fringe qualifying matter forming the only difference between the scenarios.

This section also shows the difference in capacity between the notified Variation 3 (Scenario 3) and the baseline capacity modelled under the PDP Decisions Version without the application of MDRS (Scenario 1). With the application of the Urban Fringe in place within Scenario 3, the difference in capacity is due to the spatial extension of the MR Zone within the four main urban towns.

The net and percentage differences in capacity are summarised below in Table 5-38. The upper portion of the table shows the net difference in capacity (dwelling numbers), with the lower half calculating the percentage difference. The dwelling and capacity type structure of the table follows of the tables contained earlier within this section.

Table 5-38: Difference in Plan-Enabled and Projected Feasible Capacity Development Options between Modelled Scenarios

Time Period	Comparison	INFILL					REDEVELOPMENT						GREENFIELD					
		Standalone	Attached	Apartment	Vertical Apartments	Max Infill	Standalone	Attached	Apartment	Vertical Apartments	Max Redevelopment	Max Infill or Redevelopment	Standalone	Attached	Apartment	Vertical Apartments	Max Greenfield	Max Greenfield and Existing Urban
		Net Change in Capacity (Number of Net Additional Dwellings)																
Plan Enabled Capacity	Scenario 3 vs. Scenario 3a	-2,605	-4,514	-3,686	-	-4,514	-9,661	-14,023	-10,627	-	-14,023	-14,458	-8,102	-16,190	-14,476	-	-16,190	-30,648
	Scenario 3 vs. Scenario 1	190	626	899	-	899	686	2,023	3,204	-	3,204	3,204	-	-	-	-	-	3,204
Commercially Feasible: Current	Scenario 3 vs. Scenario 3a	-290	-423	-	-	-373	-470	-356	-	-	-553	-655	-	-	-	-	-	-655
	Scenario 3 vs. Scenario 1	36	164	-	-	142	65	102	-	-	116	168	-	-	-	-	-	168
Commercially Feasible: Short-Term	Scenario 3 vs. Scenario 3a	-1,182	-729	-	-	-1,367	-956	-633	-	-	-1,134	-1,660	-	-	-	-	-	-1,660
	Scenario 3 vs. Scenario 1	118	206	-	-	245	89	244	-	-	232	295	-	-	-	-	-	295
Commercially Feasible: Medium-Term	Scenario 3 vs. Scenario 3a	-1,172	-1,765	-486	-	-1,874	-1,331	-1,673	-390	-	-2,101	-2,696	-7,417	-18,742	-2,837	-	-13,838	-16,534
	Scenario 3 vs. Scenario 1	118	241	-	-	290	186	591	-	-	617	637	-	-	-	-	-	637
Commercially Feasible: Long-Term	Scenario 3 vs. Scenario 3a	-2,518	-3,581	-2,477	-	-3,955	-3,851	-5,145	-2,726	-	-5,989	-6,829	-8,102	-16,773	-20,096	-	-15,992	-22,821
	Scenario 3 vs. Scenario 1	158	527	391	-	623	347	1,490	477	-	1,623	1,661	-	-	-	-	-	1,661
		Percentage Change in Capacity																
Plan Enabled Capacity	Scenario 3 vs. Scenario 3a	-40%	-37%	-27%	0%	-32%	-51%	-42%	-27%	0%	-31%	-32%	-49%	-64%	-59%	0%	-61%	-43%
	Scenario 3 vs. Scenario 1	5%	9%	10%	0%	10%	8%	12%	13%	0%	12%	12%	0%	0%	0%	0%	0%	8%
Commercially Feasible: Current	Scenario 3 vs. Scenario 3a	-26%	-39%	0%	0%	-23%	-26%	-27%	0%	0%	-22%	-22%	0%	0%	0%	0%	0%	-22%
	Scenario 3 vs. Scenario 1	4%	33%	0%	0%	13%	5%	12%	0%	0%	6%	8%	0%	0%	0%	0%	0%	8%
Commercially Feasible: Short-Term	Scenario 3 vs. Scenario 3a	-48%	-41%	0%	0%	-41%	-34%	-27%	0%	0%	-28%	-32%	0%	0%	0%	0%	0%	-32%
	Scenario 3 vs. Scenario 1	10%	25%	0%	0%	15%	5%	16%	0%	0%	9%	9%	0%	0%	0%	0%	0%	9%
Commercially Feasible: Medium-Term	Scenario 3 vs. Scenario 3a	-43%	-46%	-100%	0%	-39%	-31%	-26%	-100%	0%	-25%	-29%	-51%	-93%	-100%	0%	-64%	-53%
	Scenario 3 vs. Scenario 1	8%	13%	0%	0%	11%	7%	14%	0%	0%	11%	10%	0%	0%	0%	0%	0%	5%
Commercially Feasible: Long-Term	Scenario 3 vs. Scenario 3a	-52%	-42%	-48%	0%	-39%	-42%	-29%	-50%	0%	-29%	-31%	-49%	-68%	-92%	0%	-63%	-48%
	Scenario 3 vs. Scenario 1	7%	12%	17%	0%	11%	7%	13%	21%	0%	12%	12%	0%	0%	0%	0%	0%	7%

Source: M.E Waikato Residential Capacity Model, 2022/2023.

Effect of Urban Fringe and Well-Functioning Urban Environment

Table 5-38 shows the application of the Urban Fringe qualifying matter reduces the plan enabled capacity by 43% (30,600 dwellings). The initial reductions on feasible capacity within the current and short-term are lower (at -22% and -32% respectively). This is because the more intensive dwelling typologies that are restricted by the Urban Fringe have lower feasibility within the current and short-term, meaning that their restriction has a lower effect. The effect on feasible capacity increases to around 50% in the medium to long-term as these typologies become feasible with market growth.

Despite the sizeable decreases in capacity, the effect on overall take-up of capacity is likely to be lower. This is because both modelled scenarios enable substantial levels of capacity relative to demand in most locations, meaning that demand is still likely to be met with the reduction in capacity. Furthermore, the densities at which development is likely to occur under Scenario 3a are likely to be lower than than enabled with the application of MDRS to the GR Zone. Therefore, the difference in realised development patterns between the scenarios is likely to be lower in percentage terms than the difference in *enabled* densities.

The main effect of the differences between the scenarios is likely to be related to the patterns of growth and urban form that occur within the urban towns. The modelling indicates that the application of the Urban Fringe qualifying matter is likely to encourage a greater share of growth to occur in areas surrounding the commercial centres. It is also likely to limit the extent to which growth patterns are more dispersed away from the commercial centres.

These are important effects that have a direct impact on the achievement of a well-functioning urban environment. Intensification in areas surrounding centres forms an efficient location for growth, with a range of economic benefits associated with growth occurring around centres. Growth in these locations supports the viability and vitality of commercial centres, reinforcing their role as important amenity hubs for their surrounding catchment areas.

Centralised patterns of growth are also likely to be able to be more efficiently served by infrastructure and other important community services than patterns of intensification that are more dispersed across the outer suburban areas.

The Urban Fringe may also have some effect on the level of take up within greenfield areas. Higher yields are able to be achieved with the application of the MDRS (without the Urban Fringe) to the GR and Future Urban Zones. Under the PDP Decisions Version, these zones have an enabled density of one dwelling per 450m2. This is relatively low within the context of development patterns elsewhere.

If the MDRS is applied to these zones within the greenfields areas, then they may develop with higher yields. However, within the context of strong patterns of dwelling demand for detached dwellings on full sites, it is likely that they would still develop at densities much lower than that enabled with the MDRS (up to three dwellings per 450m2). A large share of these dwellings are likely to still be developed at densities which reflect a higher share of detached dwellings, albeit with smaller average site sizes.

The total level of realised yield within the greenfield areas will also be limited by the total size and timing of market demand. Despite the ability to achieve higher yields, developers are unlikely to develop substantially more capacity than can be sustained by the market. There may be some potential for additional overall growth to occur as a result of redirection of demand from adjacent larger markets. This is more likely to occur within the northern parts of the district where Pookeno and Tuakau may offer potential location options for households within the southern Auckland Franklin Ward market. However, this is likely to be limited by the size of demand within this market and the level of competition with other sizeable dwelling supply options in the adjacent areas in and around Pukekohe and the southern urban edge of Auckland.

Comparison of Notified Variation 3 with the Baseline PDP Decisions Version

Table 5-38 also quantifies the increase in capacity that would occur with the notified Variation 3 (including the Urban Fringe qualifying matter) (Scenario 3) from the baseline capacity enabled under the PDP Decisions Version (Scenario 1).

The impact of Scenario 3 occurs entirely within the existing urban area as it relates to the expansion of the MR Zone, which occurs within this area. It would increase the plan enabled capacity within the existing urban area by 12% (or 8% on capacity overall, including greenfield areas). There is an estimated 8% increase in commercially feasible capacity in the current market, increasing to 12% through time.

The percentage increases on capacity are larger for more intensive dwellings (attached dwellings) due to the higher yields that can be achieved within these typologies with the application of the MR Zone. The market growth within these more intensive typologies drives the percentage increase in feasible capacity through time as they become more established in the medium to long-term.

These scenarios are likely to have similar effects in relation to urban form as the differences between the scenarios is minor, relating to the small extension of the MR zone. Both scenarios encourage more intensive development to occur within the areas surrounding the commercial centres. This is achieved through a combination of the higher permitted densities within the MR zone, and the restriction on intensification within outer areas within the GR zone.

Encouraging intensification within these inner areas is likely to encourage the economic benefits generally associated with intensification around centres (as described above).

6 Conclusions

The intensification provisions proposed by WDC would enable a greater level of capacity and development across much of the urban residential areas of the Waikato District than past patterns of development enabled under previous planning provisions. All modelled scenarios would enable greater intensification within the existing urban areas, with some scenarios also enabling higher yields within the greenfield areas.

The modelling has shown that the WDC scenarios (1 to 3a) would all enable significant levels of intensification to occur within the existing urban area. The total capacity and enabled densities within the MR Zone are well above the existing patterns of development within these areas and those currently enabled within the ODP. This also occurs within the GR Zone when the MDRS is applied. If capacity is taken up at these densities, then it would represent a significant shift to the development patterns that have previously characterised growth across much of the district's urban areas. The greatest difference would occur with attached dwellings, with the detached dwellings being closer (than attached dwellings) to existing development patterns.

There is a further large increase in modelled capacity occurring under the Kāinga Ora submission proposed scenario. The capacity within this scenario is well above that of the WDC scenarios, with much higher levels of capacity across most of the current and future urban areas than within other scenarios.

The assessment has shown that in most of the main urban towns (Pookeno, Tuakau and Ngaaruawaahia), the level of capacity is well ahead of the level of long-term demand. This occurs in relation to both the greenfield capacity and the intensification opportunities within the existing urban area. The exception is Huntly where long-term demand is unlikely to be able to be met by the private, profit-driven commercial development sector. Part of this relates to a limited provision for greenfield land, while part relates to the feasibility of intensification within a lower value urban area where market demand is less likely to become established for more intensive types of dwellings.

There are important differences in relation to the patterns of growth and urban form that are encouraged by the different scenarios. The differences in development patterns are central to achieving a well-functioning urban economy. A core aspect is the degree to which each set of provisions encourages the concentration of growth in locations within and around the commercial centres of the main urban towns. Part of this relates to the provision for intensification to occur in these central areas, while part relates to limiting the dispersal of intensification into outer suburban areas. There is generally a smaller market size for more intensive dwellings within smaller urban areas, meaning that intensification in outer locations is more likely to dilute the intensification that would otherwise occur in more efficient locations around the commercial centres.

Understanding the capacity enabled by the intensification provisions is an important first stage in understanding the implications of Variation 3 and the MDRS. It is likely that development will get taken up through time at a range of densities, including up to that of Variation 3 and the MDRS in some locations. However, much of the development capacity delivered by the market is still likely to occur at lower densities, particularly within the short-term, as demand increases through time for more intensive dwelling options.